

Chemical Analysis Report

WQAP-2017-10-04-02

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

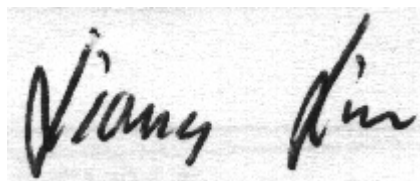
Event Description: **Horsehole Cr - WBID 3703**
Request ID: **RQ-2017-10-02-15**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N Telecom Parkway
Tampa, FL 33637
Attn: Judy ashton

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 24-OCT-2017 10:26

A handwritten signature in black ink, appearing to read "Liang Lin", is shown 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: HORSEHOLE CRK @ 19

Collection Date/Time: 10/03/2017 12:50

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1933943	EPA 180.1 Rev. 2.0	Turbidity	1.6	A	NTU	P332738	
	EPA 300.0 Rev. 2.1	Chloride	7.2	A	mg Cl/L	P332941	
		Sulfate	0.68	A	mg SO4/L	P332944	
	SM 2120 B	Color (true)	560		PCU	P332751	
	SM 2320 B-97	Total Alkalinity	50		mg CaCO3/L	P333072	
	SM 2540 C-97	TDS	163		mg/L	P333045	
	SM 2540 D-97	TSS	3	I	mg/L	P333091	
	SM 4500 F-C-97	Fluoride	0.047	I	mg F/L	P333076	
1933944	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P333302	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P333308	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P333054	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P333010	
	SM 5310 B-00	Organic Carbon	39		mg C/L	P333153	
1933945	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.097		mg P/L	P332731	
1933955	EPA 200.7 Rev. 4.4	Calcium	20.8		mg/L	P332818	
		Iron	1.77E+03		ug/L	P332818	
		Magnesium	3.42		mg/L	P332818	
		Potassium	0.34	I	mg/L	P332818	
		Sodium	4.4		mg/L	P332818	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P332818	
		Arsenic	0.82		ug/L	P332818	
		Cadmium	0.020	U	ug/L	P332818	
		Chromium	0.49	I	ug/L	P332818	
		Copper	0.20	U	ug/L	P332818	
		Lead	0.32		ug/L	P332818	
		Nickel	0.38	I	ug/L	P332818	
		Silver	0.010	U	ug/L	P332818	

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: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: HORSEHOLE CRK @ 19

Collection Date/Time: 10/03/2017 12:50

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1933949	EPA 8321B	Glyphosate**	0.50	U	ug/L	P332696	
		Pyraclostrobin**	0.0020	U	ug/L	P332701	
		Sucralose**	0.055		ug/L	P332642	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P332643	
		Diuron	8.0E-04	U	ug/L	P332643	
		Fenuron	0.0080	U	ug/L	P332643	
		Imidacloprid	8.0E-04	U	ug/L	P332643	MS
		Bentazon	8.0E-04	U	ug/L	P332643	MS
		Linuron	0.0040	U	ug/L	P332643	

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1933949	USGS O-2060-01	Acetaminophen**	0.0080	U	ug/L	P332643	RPD
		MCPD	0.0020	U	ug/L	P332643	
		Carbamazepine**	4.0E-04	U	ug/L	P332643	
		Triclopyr**	0.0040	U	ug/L	P332643	
		Primidone**	0.0040	U	ug/L	P332643	
		Fluridone**	4.0E-04	U	ug/L	P332643	
1933953	EPA 8270D	Aldrin	4.1	U	ng/L	P332715	RPD
		Alpha-BHC	2.1	U	ng/L	P332715	
		Beta-BHC	4.1	U	ng/L	P332715	
		Delta-BHC	4.1	U	ng/L	P332715	
		Gamma-BHC	4.1	U	ng/L	P332715	
		Carbophenothion	4.1	U	ng/L	P332715	
		Chlorothalonil	2.1	U	ng/L	P332715	
		Cypermethrin	21	U	ng/L	P332715	
		DDD-p,p'	3.1	U	ng/L	P332715	
		DDE-p,p'	3.1	U	ng/L	P332715	
		DDT-p,p'	3.1	U	ng/L	P332715	
		Dieldrin	4.1	U	ng/L	P332715	
		Endosulfan I	4.1	U	ng/L	P332715	
		Endosulfan II	4.1	U	ng/L	P332715	
		Endosulfan Sulfate	2.1	U	ng/L	P332715	
		Endrin	2.1	U	ng/L	P332715	RPD
		Endrin Aldehyde	2.1	U	ng/L	P332715	
		Heptachlor	1.5	U	ng/L	P332715	
		Heptachlor Epoxide	2.1	U	ng/L	P332715	
		Methoxychlor	4.1	UJ	ng/L	P332715	
		Mirex	2.1	U	ng/L	P332715	LCS
		Permethrin	10	U	ng/L	P332715	
		Trifluralin	1.0	U	ng/L	P332715	
		Alpha-Chlordane	1.0	U	ng/L	P332715	
		Gamma-Chlordane	1.0	U	ng/L	P332715	
		Endrin Ketone	2.1	U	ng/L	P332715	RPD
		Dicofol	31	U	ng/L	P332715	
		Chlordane**	2.6	U	ng/L	P332715	
		Toxaphene**	13	U	ng/L	P332715	
1933954	EPA 8270D	Alachlor	0.24	U	ng/L	P333059	MS
		Ametryn	0.31	U	ng/L	P333059	
		Atrazine	0.24	U	ng/L	P333059	
		Atrazine Desethyl	1.4	U	ng/L	P333059	
		Azinphos Methyl	2.1	U	ng/L	P333059	
		Bromacil	0.48	U	ng/L	P333059	
		Butylate	0.38	U	ng/L	P333059	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P333059	
		Chlorpyrifos Methyl	0.095	U	ng/L	P333059	
		Demeton	1.9	U	ng/L	P333059	

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1933954	EPA 8270D	Diazinon	0.12	U	ng/L	P333059	MS
		Disulfoton	0.48	U	ng/L	P333059	
		EPTC	1.2	U	ng/L	P333059	
		Ethion	0.14	U	ng/L	P333059	
		Ethoprop	0.095	U	ng/L	P333059	MS
		Fenamiphos	0.24	U	ng/L	P333059	
		Fipronil	0.24	U	ng/L	P333059	
		Fipronil Sulfide	0.14	U	ng/L	P333059	
		Fipronil Sulfone	0.14	U	ng/L	P333059	
		Hexazinone	1.9	I	ng/L	P333059	
		Malathion	0.33	U	ng/L	P333059	
		Metribuzin	0.19	UJ	ng/L	P333059	LCS, MS
		Mevinphos	0.48	UJ	ng/L	P333059	CCV, LCS, MS
		Molinate	0.29	U	ng/L	P333059	
		Norflurazon	0.48	U	ng/L	P333059	
		Pendimethalin	0.95	U	ng/L	P333059	
		Phorate	0.24	U	ng/L	P333059	
		Prometon	0.86	U	ng/L	P333059	
		Prometryn	0.19	U	ng/L	P333059	
		Simazine	0.48	U	ng/L	P333059	
		Terbufos	0.095	U	ng/L	P333059	MS
		Terbutylazine	0.40	U	ng/L	P333059	
		Fonofos	0.19	U	ng/L	P333059	MS
		Metalaxyl	0.19	U	ng/L	P333059	
		Metolachlor	0.27	I	ng/L	P333059	
		Acetochlor	0.24	U	ng/L	P333059	
		Cyanazine	0.48	U	ng/L	P333059	MS
		Parathion Ethyl	0.24	U	ng/L	P333059	
		Parathion Methyl	0.24	U	ng/L	P333059	

Ref. Method and Comment:
USGS O-2060-01: Results confirmed in re-extraction.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332738

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332818

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332818

Component	Result	Code	Units
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: P332818

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: P332941

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332944

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333302

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333308

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333054

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333010

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: P332731

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

Reference Method: EPA 8270D
Batch ID: P332715

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 8270D
Batch ID: P333059

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P333059

Component	Result	Code	Units
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	0.20	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 8276
Batch ID: P332715

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

Reference Method: EPA 8321B
Batch ID: P332642

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P332696

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: EPA 8321B
Batch ID: P332701

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P332751

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P333072

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

Reference Method: SM 2540 C-97
Batch ID: P333045

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P333091

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P333076

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P333153

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

Reference Method: USGS O-2060-01
Batch ID: P332643

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: P332818

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	109		P	85 - 115
Iron	106		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	106		P	85 - 115
Sodium	107		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332818

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.3		P	85 - 115
Cadmium	98.4		P	85 - 115
Chromium	94.5		P	85 - 115
Copper	94.5		P	85 - 115
Lead	93.0		P	85 - 115
Nickel	96.7		P	85 - 115
Silver	93.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332941

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332944

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333302

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333308

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333054

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: P333010

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	94.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P332731

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

Reference Method: EPA 8270D
 Batch ID: P332715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	27.2	29.0	P/P	26 - 88.0
Alpha-BHC	72.0	70.9	P/P	63 - 114
Alpha-Chlordane	70.9	63.0	P/P	56 - 117
Beta-BHC	81.7	71.8	P/P	57 - 138
Carbophenothion	87.5	81.9	P/P	36 - 148
Chlorothalonil	55.6	43.8	P/P	26 - 173
Cypermethrin	72.2	65.6	P/P	42 - 159
DDD-p,p'	79.6	67.5	P/P	62 - 126
DDE-p,p'	70.4	63.5	P/P	53 - 115
DDT-p,p'	78.5	67.8	P/P	54 - 117
Delta-BHC	92.8	78.2	P/P	68 - 158
Dicofol	52.2	46.2	P/P	25 - 114
Dieldrin	74.4	73.5	P/P	59 - 126
Endosulfan I	77.3	65.0	P/P	62 - 138
Endosulfan II	85.8	71.3	P/P	61 - 150
Endosulfan Sulfate	85.3	72.0	P/P	63 - 132
Endrin	75.3	66.4	P/P	49 - 148
Endrin Aldehyde	72.5	63.9	P/P	50 - 144
Endrin Ketone	78.8	69.2	P/P	66 - 122
Gamma-BHC	81.7	71.8	P/P	60 - 137
Gamma-Chlordane	72.1	62.9	P/P	54 - 113
Heptachlor	61.2	54.7	P/P	43 - 104
Heptachlor Epoxide	73.0	65.1	P/P	64 - 118
Methoxychlor	72.5	62.5	P/F	63 - 129
Mirex	59.1	47.9	P/P	39 - 93.0
Permethrin	69.7	59.2	P/P	51 - 123
Trifluralin	89.0	76.9	P/P	35 - 187

Reference Method: EPA 8270D
 Batch ID: P333059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.1	97.3	P/P	78 - 118
Alachlor	91.2	100	P/P	77 - 119
Ametryn	95.9	92.0	P/P	61 - 136
Atrazine	97.3	90.4	P/P	73 - 120
Atrazine Desethyl	109	103	P/P	16 - 122
Azinphos Methyl	106	104	P/P	69 - 186
Bromacil	94.5	99.9	P/P	40 - 125
Butylate	60.1	59.8	P/P	32 - 87.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P333059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Ethyl	88.9	94.5	P/P	53 - 110
Chlorpyrifos Methyl	94.0	96.7	P/P	31 - 119
Cyanazine	204	200	P/P	36 - 224
Demeton	87.3	88.2	P/P	39 - 122
Diazinon	105	99.8	P/P	75 - 119
Disulfoton	91.2	88.8	P/P	42 - 139
EPTC	60.1	58.9	P/P	33 - 96.0
Ethion	90.1	96.3	P/P	63 - 127
Ethoprop	87.6	91.8	P/P	65 - 107
Fenamiphos	105	107	P/P	64 - 137
Fipronil	99.7	99.6	P/P	60 - 126
Fipronil Sulfide	89.9	90.0	P/P	58 - 124
Fipronil Sulfone	86.2	90.8	P/P	57 - 126
Fonofos	86.9	89.6	P/P	65 - 111
Hexazinone	85.0	89.7	P/P	46 - 151
Malathion	88.4	93.6	P/P	68 - 132
Metalaxyl	95.4	99.5	P/P	51 - 132
Metolachlor	105	97.2	P/P	78 - 119
Metribuzin	190	178	F/F	58 - 148
Mevinphos	28.0	32.8	F/F	34 - 128
Molinate	61.3	64.2	P/P	44 - 101
Norflurazon	94.6	95.5	P/P	63 - 129
Parathion Ethyl	94.0	92.2	P/P	80 - 109
Parathion Methyl	98.5	99.3	P/P	74 - 125
Pendimethalin	85.1	83.8	P/P	48 - 134
Phorate	81.2	83.5	P/P	52 - 119
Prometon	84.4	82.0	P/P	69 - 124
Prometryn	95.6	94.4	P/P	66 - 124
Simazine	101	101	P/P	61 - 134
Terbufos	89.0	93.4	P/P	58 - 115
Terbutylazine	94.7	95.4	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P332715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	76.8	82.6	P/P	48 - 121
Toxaphene	112	112	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P332642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	109		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	112		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P332701

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	105		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P333072

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

Reference Method: SM 4500 F-C-97
Batch ID: P333076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P333153

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.5		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	78.1		P	40 - 150
Acetaminophen	130		P	30 - 150
Bentazon	38.8		P	30 - 150
Carbamazepine	135		P	40 - 150
Diuron	123		P	40 - 150
Fenuron	121		P	40 - 150
Fluridone	123		P	40 - 150
Imidacloprid	115		P	40 - 160
Linuron	122		P	40 - 150
MCPP	79.5		P	40 - 150
Primidone	128		P	40 - 150
Triclopyr	79.6		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933720	Calcium	105		P	80 - 120
1933720	Iron	103		P	80 - 120
1933720	Magnesium	108		P	80 - 120
1933720	Potassium	105		P	80 - 120
1933720	Sodium	101		P	80 - 120
1933720	Zinc	104		P	80 - 120
1933903	Calcium	103	104	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933903	Iron	101	103	P/P	80 - 120
1933903	Magnesium	105	106	P/P	80 - 120
1933903	Potassium	103	103	P/P	80 - 120
1933903	Sodium	101	102	P/P	80 - 120
1933903	Zinc	104	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933720	Arsenic	97.8		P	80 - 120
1933720	Cadmium	97.2		P	80 - 120
1933720	Chromium	92.7		P	80 - 120
1933720	Copper	93.8		P	80 - 120
1933720	Lead	93.6		P	80 - 120
1933720	Nickel	93.9		P	80 - 120
1933720	Silver	92.9		P	80 - 120
1933903	Arsenic	97.3	97.4	P/P	80 - 120
1933903	Cadmium	100	99.6	P/P	80 - 120
1933903	Chromium	94.3	93.3	P/P	80 - 120
1933903	Copper	94.1	93.2	P/P	80 - 120
1933903	Lead	94.2	93.5	P/P	80 - 120
1933903	Nickel	95.3	94.9	P/P	80 - 120
1933903	Silver	94.0	94.7	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933872	Chloride	103		P	90 - 110
1933943	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933872	Sulfate	99.2		P	90 - 110
1933943	Sulfate	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933964	Ammonia-N	97.5	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1934650	Kjeldahl Nitrogen	101	95.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P333054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933967	NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P332731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933912	O-Phosphate-P	94.6	97.1	P/P	90 - 110

Reference Method: EPA 8270D

Batch ID: P332715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933538	Aldrin	47.5	47.9	P/P	22 - 97.0
1933538	Alpha-BHC	76.8	77.9	P/P	43 - 132
1933538	Alpha-Chlordane	69.7	71.0	P/P	36 - 126
1933538	Beta-BHC	73.1	78.3	P/P	41 - 150
1933538	Carbophenothion	141	122	P/P	13 - 196
1933538	Chlorothalonil	132	54.1	P/P	10 - 266
1933538	Cypermethrin	98.9	97.7	P/P	37 - 161
1933538	DDD-p,p'	75.8	76.4	P/P	44 - 131
1933538	DDE-p,p'	63.1	67.9	P/P	32 - 127
1933538	DDT-p,p'	75.0	76.6	P/P	45 - 116
1933538	Delta-BHC	101	106	P/P	50 - 201
1933538	Dicofol	20.0	41.1	P/P	10 - 100
1933538	Dieldrin	78.7	80.4	P/P	39 - 142
1933538	Endosulfan I	81.6	76.6	P/P	51 - 139
1933538	Endosulfan II	85.2	81.4	P/P	49 - 155
1933538	Endosulfan Sulfate	87.1	83.2	P/P	54 - 136
1933538	Endrin	78.2	71.0	P/P	38 - 141
1933538	Endrin Aldehyde	43.0	29.8	P/P	14 - 152
1933538	Endrin Ketone	84.2	82.3	P/P	60 - 128
1933538	Gamma-BHC	73.1	78.3	P/P	48 - 157
1933538	Gamma-Chlordane	70.0	71.1	P/P	35 - 123
1933538	Heptachlor	54.2	52.3	P/P	25 - 112
1933538	Heptachlor Epoxide	77.2	77.9	P/P	48 - 125
1933538	Methoxychlor	73.2	73.2	P/P	52 - 127
1933538	Mirex	59.1	57.5	P/P	25 - 108
1933538	Permethrin	78.2	82.3	P/P	46 - 133
1933538	Trifluralin	125	123	P/P	29 - 254

Reference Method: EPA 8270D

Batch ID: P333059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933193	Acetochlor	88.0	98.4	P/P	74 - 123
1933193	Alachlor	82.3	94.6	P/P	73 - 124
1933193	Ametryn	81.5	91.9	P/P	56 - 149
1933193	Atrazine	95.4	111	P/P	73 - 124
1933193	Atrazine Desethyl	124	156	F/F	12 - 103
1933193	Azinphos Methyl	88.2	93.3	P/P	60 - 202
1933193	Bromacil	98.5	101	P/P	42 - 133
1933193	Butylate	43.6	50.8	P/P	10 - 85.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P333059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933193	Chlorpyrifos Ethyl	82.1	95.4	P/P	53 - 113
1933193	Chlorpyrifos Methyl	91.4	100	P/P	40 - 115
1933193	Cyanazine	187	213	P/F	22 - 210
1933193	Demeton	121	122	P/P	17 - 149
1933193	Diazinon	118	142	P/F	72 - 124
1933193	Disulfoton	119	133	P/P	43 - 139
1933193	EPTC	39.4	47.5	P/P	10 - 86.0
1933193	Ethion	81.8	93.4	P/P	65 - 131
1933193	Ethoprop	120	141	F/F	59 - 110
1933193	Fenamiphos	97.4	99.2	P/P	57 - 138
1933193	Fipronil	74.8	84.2	P/P	40 - 130
1933193	Fipronil Sulfide	80.9	98.6	P/P	36 - 128
1933193	Fipronil Sulfone	66.0	80.4	P/P	16 - 145
1933193	Fonofos	104	120	P/F	60 - 112
1933193	Hexazinone	90.2	110	P/P	69 - 142
1933193	Malathion	95.2	113	P/P	68 - 132
1933193	Metalaxyl	83.2	96.4	P/P	66 - 118
1933193	Metolachlor	85.4	95.0	P/P	71 - 124
1933193	Metribuzin	289	289	F/F	61 - 140
1933193	Mevinphos	32.1	40.8	F/P	38 - 130
1933193	Molinate	54.8	59.1	P/P	23 - 99.0
1933193	Norflurazon	75.8	85.9	P/P	39 - 139
1933193	Parathion Ethyl	95.9	108	P/P	75 - 111
1933193	Parathion Methyl	112	127	P/P	64 - 130
1933193	Pendimethalin	85.9	97.2	P/P	26 - 173
1933193	Phorate	104	115	P/P	43 - 127
1933193	Prometon	104	86.2	P/P	50 - 144
1933193	Prometryn	84.1	95.9	P/P	69 - 126
1933193	Simazine	98.4	118	P/P	51 - 152
1933193	Terbufos	117	135	P/F	54 - 125
1933193	Terbutylazine	91.7	106	P/P	76 - 113

Reference Method: EPA 8276

Batch ID: P332715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1934156	Chlordane	83.5	74.9	P/P	44 - 134
1934156	Toxaphene	105	98.5	P/P	36 - 147

Reference Method: EPA 8321B

Batch ID: P332642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933717	Sucralose	102	107	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P332696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933717	Glyphosate	112	118	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P332701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1934227	Pyraclostrobin	101	119	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P333076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933836	Fluoride	98.4	99.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P333153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933885	Organic Carbon	91.6	91.6	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1933900	2,4-D	60.6	62.0	P/P	40 - 150
1933900	Acetaminophen	65.7	94.0	P/P	30 - 150
1933900	Bentazon	22.4	22.5	F/F	30 - 150
1933900	Carbamazepine	122	125	P/P	40 - 150
1933900	Diuron	100	102	P/P	40 - 150
1933900	Fenuron	103	106	P/P	40 - 150
1933900	Fluridone	113	117	P/P	40 - 150
1933900	Imidacloprid	218	232	F/F	40 - 160
1933900	Linuron	118	114	P/P	40 - 150
1933900	MCP	56.1	61.0	P/P	40 - 150
1933900	Primidone	131	140	P/P	40 - 150
1933900	Triclopyr	56.7	57.1	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933943	Turbidity	7.55	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933903	Calcium	0.197	Spike	P	0 - 20
1933903	Iron	1.36	Spike	P	0 - 20
1933903	Magnesium	0.885	Spike	P	0 - 20
1933903	Potassium	0.179	Spike	P	0 - 20
1933903	Sodium	0.772	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933903	Zinc	1.39	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933903	Arsenic	0.0930	Spike	P	0 - 20
1933903	Cadmium	0.489	Spike	P	0 - 20
1933903	Chromium	1.09	Spike	P	0 - 20
1933903	Copper	0.893	Spike	P	0 - 20
1933903	Lead	0.706	Spike	P	0 - 20
1933903	Nickel	0.342	Spike	P	0 - 20
1933903	Silver	0.703	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933943	Chloride	0.904	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933943	Sulfate	2.20	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933964	Ammonia-N	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1934650	Kjeldahl Nitrogen	3.21	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933967	NO2NO3-N	0.803	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P333010

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933923	Total-P	1.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P332731

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933912	O-Phosphate-P	2.41	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P332715

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933538	Aldrin	0.829	Spike	P	0 - 30
1933538	Alpha-BHC	1.37	Spike	P	0 - 30
1933538	Alpha-Chlordane	1.88	Spike	P	0 - 30
1933538	Beta-BHC	6.82	Spike	P	0 - 30
1933538	Carbophenothion	14.5	Spike	P	0 - 30
1933538	Chlorothalonil	83.6	Spike	F	0 - 30
1933538	Cypermethrin	1.19	Spike	P	0 - 30
1933538	DDD-p,p'	0.883	Spike	P	0 - 30
1933538	DDE-p,p'	7.38	Spike	P	0 - 30
1933538	DDT-p,p'	2.10	Spike	P	0 - 30
1933538	Delta-BHC	4.59	Spike	P	0 - 30
1933538	Dicofol	69.0	Spike	F	0 - 30
1933538	Dieldrin	2.09	Spike	P	0 - 30
1933538	Endosulfan I	6.26	Spike	P	0 - 30
1933538	Endosulfan II	4.56	Spike	P	0 - 30
1933538	Endosulfan Sulfate	4.59	Spike	P	0 - 30
1933538	Endrin	9.59	Spike	P	0 - 30
1933538	Endrin Aldehyde	36.1	Spike	F	0 - 30
1933538	Endrin Ketone	2.21	Spike	P	0 - 30
1933538	Gamma-BHC	6.82	Spike	P	0 - 30
1933538	Gamma-Chlordane	1.53	Spike	P	0 - 30
1933538	Heptachlor	3.46	Spike	P	0 - 30
1933538	Heptachlor Epoxide	0.862	Spike	P	0 - 30
1933538	Methoxychlor	0.00649	Spike	P	0 - 30
1933538	Mirex	2.67	Spike	P	0 - 30
1933538	Permethrin	5.07	Spike	P	0 - 30
1933538	Trifluralin	1.70	Spike	P	0 - 30
LFB	Aldrin	6.31	LCS	P	0 - 30
LFB	Alpha-BHC	1.62	LCS	P	0 - 30
LFB	Alpha-Chlordane	11.8	LCS	P	0 - 30
LFB	Beta-BHC	12.9	LCS	P	0 - 30
LFB	Carbophenothion	6.54	LCS	P	0 - 30
LFB	Chlorothalonil	23.8	LCS	P	0 - 30
LFB	Cypermethrin	9.61	LCS	P	0 - 30
LFB	DDD-p,p'	16.5	LCS	P	0 - 30
LFB	DDE-p,p'	10.2	LCS	P	0 - 30
LFB	DDT-p,p'	14.7	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Delta-BHC	17.1	LCS	P	0 - 30
LFB	Dicofol	12.2	LCS	P	0 - 30
LFB	Dieldrin	1.24	LCS	P	0 - 30
LFB	Endosulfan I	17.2	LCS	P	0 - 30
LFB	Endosulfan II	18.4	LCS	P	0 - 30
LFB	Endosulfan Sulfate	16.9	LCS	P	0 - 30
LFB	Endrin	12.7	LCS	P	0 - 30
LFB	Endrin Aldehyde	12.7	LCS	P	0 - 30
LFB	Endrin Ketone	13.0	LCS	P	0 - 30
LFB	Gamma-BHC	12.9	LCS	P	0 - 30
LFB	Gamma-Chlordane	13.5	LCS	P	0 - 30
LFB	Heptachlor	11.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.4	LCS	P	0 - 30
LFB	Methoxychlor	14.8	LCS	P	0 - 30
LFB	Mirex	21.0	LCS	P	0 - 30
LFB	Permethrin	16.3	LCS	P	0 - 30
LFB	Trifluralin	14.6	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P333059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933193	Acetochlor	11.2	Spike	P	0 - 30
1933193	Alachlor	13.9	Spike	P	0 - 30
1933193	Ametryn	11.9	Spike	P	0 - 30
1933193	Atrazine	13.4	Spike	P	0 - 30
1933193	Atrazine Desethyl	22.9	Spike	P	0 - 30
1933193	Azinphos Methyl	5.69	Spike	P	0 - 30
1933193	Bromacil	2.15	Spike	P	0 - 30
1933193	Butylate	15.2	Spike	P	0 - 30
1933193	Chlorpyrifos Ethyl	15.1	Spike	P	0 - 30
1933193	Chlorpyrifos Methyl	9.51	Spike	P	0 - 30
1933193	Cyanazine	13.0	Spike	P	0 - 30
1933193	Demeton	0.746	Spike	P	0 - 30
1933193	Diazinon	18.4	Spike	P	0 - 30
1933193	Disulfoton	11.3	Spike	P	0 - 30
1933193	EPTC	18.7	Spike	P	0 - 30
1933193	Ethion	13.3	Spike	P	0 - 30
1933193	Ethoprop	16.0	Spike	P	0 - 30
1933193	Fenamiphos	1.80	Spike	P	0 - 30
1933193	Fipronil	11.9	Spike	P	0 - 30
1933193	Fipronil Sulfide	19.7	Spike	P	0 - 30
1933193	Fipronil Sulfone	19.6	Spike	P	0 - 30
1933193	Fonofos	13.7	Spike	P	0 - 30
1933193	Hexazinone	18.0	Spike	P	0 - 30
1933193	Malathion	16.7	Spike	P	0 - 30
1933193	Metaxyl	14.7	Spike	P	0 - 30
1933193	Metolachlor	9.92	Spike	P	0 - 30
1933193	Metribuzin	0.270	Spike	P	0 - 30
1933193	Mevinphos	23.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P333059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933193	Molinate	7.41	Spike	P	0 - 30
1933193	Norflurazon	12.4	Spike	P	0 - 30
1933193	Parathion Ethyl	11.6	Spike	P	0 - 30
1933193	Parathion Methyl	13.1	Spike	P	0 - 30
1933193	Pendimethalin	12.3	Spike	P	0 - 30
1933193	Phorate	10.2	Spike	P	0 - 30
1933193	Prometon	19.0	Spike	P	0 - 30
1933193	Prometryn	13.1	Spike	P	0 - 30
1933193	Simazine	18.1	Spike	P	0 - 30
1933193	Terbufos	14.2	Spike	P	0 - 30
1933193	Terbutylazine	14.9	Spike	P	0 - 30
LFB	Acetochlor	2.30	LCS	P	0 - 30
LFB	Alachlor	9.62	LCS	P	0 - 30
LFB	Ametryn	4.09	LCS	P	0 - 30
LFB	Atrazine	7.40	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.35	LCS	P	0 - 30
LFB	Azinphos Methyl	2.41	LCS	P	0 - 30
LFB	Bromacil	5.60	LCS	P	0 - 30
LFB	Butylate	0.519	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.17	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.90	LCS	P	0 - 30
LFB	Cyanazine	2.29	LCS	P	0 - 30
LFB	Demeton	1.02	LCS	P	0 - 30
LFB	Diazinon	5.16	LCS	P	0 - 30
LFB	Disulfoton	2.61	LCS	P	0 - 30
LFB	EPTC	1.97	LCS	P	0 - 30
LFB	Ethion	6.60	LCS	P	0 - 30
LFB	Ethoprop	4.67	LCS	P	0 - 30
LFB	Fenamiphos	2.44	LCS	P	0 - 30
LFB	Fipronil	0.133	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.0903	LCS	P	0 - 30
LFB	Fipronil Sulfone	5.09	LCS	P	0 - 30
LFB	Fonofos	3.15	LCS	P	0 - 30
LFB	Hexazinone	5.35	LCS	P	0 - 30
LFB	Malathion	5.73	LCS	P	0 - 30
LFB	Metalaxyl	4.16	LCS	P	0 - 30
LFB	Metolachlor	7.79	LCS	P	0 - 30
LFB	Metribuzin	6.43	LCS	P	0 - 30
LFB	Mevinphos	15.8	LCS	P	0 - 30
LFB	Molinate	4.70	LCS	P	0 - 30
LFB	Norflurazon	0.933	LCS	P	0 - 30
LFB	Parathion Ethyl	2.01	LCS	P	0 - 30
LFB	Parathion Methyl	0.756	LCS	P	0 - 30
LFB	Pendimethalin	1.54	LCS	P	0 - 30
LFB	Phorate	2.77	LCS	P	0 - 30
LFB	Prometon	2.86	LCS	P	0 - 30
LFB	Prometryn	1.28	LCS	P	0 - 30
LFB	Simazine	0.558	LCS	P	0 - 30
LFB	Terbufos	4.82	LCS	P	0 - 30
LFB	Terbutylazine	0.720	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P332715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1934156	Chlordane	10.8	Spike	P	0 - 30
1934156	Toxaphene	6.18	Spike	P	0 - 30
LFB	Chlordane	7.31	LCS	P	0 - 30
LFB	Toxaphene	0.431	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933717	Sucralose	4.20	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933717	Glyphosate	5.53	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1934227	Pyraclostrobin	16.0	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P332751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933960	Color (true)	1.66	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P333072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933836	Total Alkalinity	0.376	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P333045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933884	TDS	5.77	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P333076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933836	Fluoride	0.482	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P333153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933885	Organic Carbon	0.0351	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P332643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933900	2,4-D	2.05	Spike	P	0 - 30
1933900	Acetaminophen	35.4	Spike	F	0 - 30
1933900	Bentazon	0.267	Spike	P	0 - 30
1933900	Carbamazepine	2.54	Spike	P	0 - 30
1933900	Diuron	1.62	Spike	P	0 - 30
1933900	Fenuron	2.53	Spike	P	0 - 30
1933900	Fluridone	3.12	Spike	P	0 - 30
1933900	Imidacloprid	6.49	Spike	P	0 - 30
1933900	Linuron	3.05	Spike	P	0 - 30
1933900	MCPP	8.37	Spike	P	0 - 30
1933900	Primidone	6.98	Spike	P	0 - 30
1933900	Triclopyr	0.773	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: 1933949
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	61.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	69.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	69.6	P	30 - 160
EPA 8321B	Diuron-d6	80.6	P	30 - 160
EPA 8321B	Diuron-d6	46.1	P	30 - 160
EPA 8321B	Diuron-d6	80.6	P	30 - 160
EPA 8321B	Diuron-d6	46.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	40 - 160
EPA 8321B	Primidone-d5	70.7	P	30 - 160
EPA 8321B	Primidone-d5	70.7	P	30 - 160
EPA 8321B	Sucralose-d6	150	P	40 - 160
EPA 8321B	Sucralose-d6	150	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1933949
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	67.4	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	61.3	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	69.6	P	30 - 160
USGS O-2060-01	Diuron-d6	80.6	P	30 - 160
USGS O-2060-01	Diuron-d6	46.1	P	30 - 160
USGS O-2060-01	Primidone-d5	70.7	P	30 - 160
USGS O-2060-01	Sucralose-d6	150	P	40 - 160

Lab Sample ID: 1933953
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	72.4	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	55.4	P	32 - 103
EPA 8276	Decachlorobiphenyl	71.2	P	31 - 100

Lab Sample ID: 1933954
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	78.0	P	53 - 135
EPA 8270D	Simazine-d10	85.8	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79337
Included Lab Sample IDs: 1933945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	97.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A79338
Included Lab Sample IDs: 1933943

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

Reference Method: SM 2120 B
Run ID: A79343
Included Lab Sample IDs: 1933943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	105	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A79401

Included Lab Sample IDs: 1933943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	108	P/P	90 - 110
Sulfate	102	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79408

Included Lab Sample IDs: 1933955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	102	P/P	90 - 110
Cadmium	98.6	97.8	P/P	90 - 110
Chromium	95.9	96.0	P/P	90 - 110
Copper	98.5	99.9	P/P	90 - 110
Lead	95.1	95.2	P/P	90 - 110
Nickel	98.5	99.5	P/P	90 - 110
Silver	94.5	94.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79430

Included Lab Sample IDs: 1933949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	104	98.0	P/P	70 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A79440

Included Lab Sample IDs: 1933955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	96.7	96.8	P/P	90 - 110
Iron	96.4	95.5	P/P	90 - 110
Magnesium	97.9	97.1	P/P	90 - 110
Potassium	99.6	99.3	P/P	90 - 110
Sodium	96.3	96.7	P/P	90 - 110
Zinc	100	99.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79451

Included Lab Sample IDs: 1933949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	100	103	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79454

Included Lab Sample IDs: 1933944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79457

Included Lab Sample IDs: 1933944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A79462

Included Lab Sample IDs: 1933943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79462

Included Lab Sample IDs: 1933943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79478

Included Lab Sample IDs: 1933949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	104	103	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A79478

Included Lab Sample IDs: 1933949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	88.7	P/P	50 - 150
Acetaminophen	87.8	87.8	P/P	60 - 150
Bentazon	85.0	87.0	P/P	50 - 150
Carbamazepine	89.4	94.5	P/P	60 - 150
Diuron	92.0	98.5	P/P	60 - 150
Fenuron	93.0	92.2	P/P	60 - 150
Fluridone	102	107	P/P	60 - 160
Imidacloprid	94.4	92.4	P/P	60 - 150
Linuron	96.3	94.3	P/P	60 - 150
MCPP	100	97.0	P/P	50 - 150
Primidone	90.0	99.6	P/P	60 - 150
Triclopyr	105	105	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A79484

Included Lab Sample IDs: 1933944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.6	96.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79523

Included Lab Sample IDs: 1933944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79564

Included Lab Sample IDs: 1933944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A79588

Included Lab Sample IDs: 1933953

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	84.8		P	80 - 120
Toxaphene	105		P	80 - 120

Reference Method: EPA 8270D

Run ID: A79606

Included Lab Sample IDs: 1933953

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.3		P	80 - 120
Alpha-BHC	109		P	80 - 120
Alpha-Chlordane	98.2		P	80 - 120
Beta-BHC	108		P	80 - 120
Carbophenothion	99.9		P	80 - 120
Chlorothalonil	104		P	80 - 120
Cypermethrin	93.4		P	80 - 120
DDD-p,p'	98.0		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	104		P	80 - 120
Dicofol	95.5		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	98.4		P	80 - 120
Endosulfan II	95.8		P	80 - 120
Endosulfan Sulfate	97.4		P	80 - 120
Endrin	93.8		P	80 - 120
Endrin Aldehyde	92.0		P	80 - 120
Endrin Ketone	96.7		P	80 - 120
Gamma-BHC	108		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Methoxychlor	103		P	80 - 120
Mirex	98.3		P	80 - 120
Permethrin	98.3		P	80 - 120
Trifluralin	98.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
 Run ID: A79638
 Included Lab Sample IDs: 1933954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	98.1		P	80 - 120
Atrazine	97.6		P	80 - 120
Atrazine Desethyl	90.9		P	80 - 120
Azinphos Methyl	96.4		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	102		P	80 - 120
Chlorpyrifos Ethyl	115		P	80 - 120
Chlorpyrifos Methyl	116		P	80 - 120
Cyanazine	83.1		P	80 - 120
Demeton	112		P	80 - 120
Diazinon	107		P	80 - 120
Disulfoton	108		P	80 - 120
EPTC	106		P	80 - 120
Ethion	115		P	80 - 120
Ethoprop	113		P	80 - 120
Fenamiphos	113		P	80 - 120
Fipronil	100		P	80 - 120
Fipronil Sulfide	113		P	80 - 120
Fipronil Sulfone	114		P	80 - 120
Fonofos	112		P	80 - 120
Hexazinone	102		P	80 - 120
Malathion	112		P	80 - 120
Metaxyl	104		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	72.9*		F	80 - 120
Molinate	92.4		P	80 - 120
Norflurazon	97.8		P	80 - 120
Parathion Ethyl	93.0		P	80 - 120
Parathion Methyl	95.7		P	80 - 120
Pendimethalin	88.7		P	80 - 120
Phorate	113		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Simazine	97.8		P	80 - 120
Terbufos	114		P	80 - 120
Terbutylazine	100		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				7.55	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision SMP	MS
EPA 200.7 Rev. 4.4	Calcium	109		105	103	104		0.197
	Iron	106		103	101	103		1.36
	Magnesium	112		108	105	106		0.885
	Potassium	106		105	103	103		0.179
	Sodium	107		101	101	102		0.772
	Zinc	102		104	104	106		1.39
EPA 200.8 Rev. 5.4	Arsenic	98.3		97.8	97.3	97.4		0.0930
	Cadmium	98.4		97.2	100	99.6		0.489
	Chromium	94.5		92.7	94.3	93.3		1.09
	Copper	94.5		93.8	94.1	93.2		0.893
	Lead	93.0		93.6	94.2	93.5		0.706
	Nickel	96.7		93.9	95.3	94.9		0.342
EPA 300.0 Rev. 2.1	Silver	93.9		92.9	94.0	94.7		0.703
	Chloride	103		103	103		0.904	
	Sulfate	99.3		98.8	99.2		2.20	
EPA 350.1 Rev. 2.0	Ammonia-N	94.4		97.5	99.4			1.66
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		101	95.2			3.21
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	106		103				0.803
EPA 365.1 Rev. 2.0	Total-P	94.5						1.02
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		94.6	97.1			2.41
EPA 8270D	Acetochlor	95.1	97.3	88.0	98.4	2.30		11.2
	Alachlor	91.2	100	82.3	94.6	9.62		13.9
	Aldrin	27.2	29.0	47.5	47.9	6.31		0.829
	Alpha-BHC	72.0	70.9	76.8	77.9	1.62		1.37
	Alpha-Chlordane	70.9	63.0	69.7	71.0	11.8		1.88
	Ametryn	95.9	92.0	81.5	91.9	4.09		11.9
	Atrazine	97.3	90.4	95.4	111	7.40		13.4
	Atrazine Desethyl	109	103	124	156	5.35		22.9
	Azinphos Methyl	106	104	88.2	93.3	2.41		5.69
	Beta-BHC	81.7	71.8	73.1	78.3	12.9		6.82
	Bromacil	94.5	99.9	98.5	101	5.60		2.15
	Butylate	60.1	59.8	43.6	50.8	0.519		15.2
	Carbophenothion	87.5	81.9	141	122	6.54		14.5
	Chlorothalonil	55.6	43.8	132	54.1	23.8		83.6
	Chlorpyrifos Ethyl	88.9	94.5	82.1	95.4	6.17		15.1
	Chlorpyrifos Methyl	94.0	96.7	91.4	100	2.90		9.51
	Cyanazine	204	200	187	213	2.29		13.0
	Cypermethrin	72.2	65.6	98.9	97.7	9.61		1.19
	DDD-p,p'	79.6	67.5	75.8	76.4	16.5		0.883
	DDE-p,p'	70.4	63.5	63.1	67.9	10.2		7.38
	DDT-p,p'	78.5	67.8	75.0	76.6	14.7		2.10
	Delta-BHC	92.8	78.2	101	106	17.1		4.59
	Demeton	87.3	88.2	121	122	1.02		0.746
	Diazinon	105	99.8	118	142	5.16		18.4
	Dicofol	52.2	46.2	20.0	41.1	12.2		69.0
	Dieldrin	74.4	73.5	78.7	80.4	1.24		2.09
	Disulfoton	91.2	88.8	119	133	2.61		11.3
	Endosulfan I	77.3	65.0	81.6	76.6	17.2		6.26
	Endosulfan II	85.8	71.3	85.2	81.4	18.4		4.56
	Endosulfan Sulfate	85.3	72.0	87.1	83.2	16.9		4.59
	Endrin	75.3	66.4	78.2	71.0	12.7		9.59
	Endrin Aldehyde	72.5	63.9	43.0	29.8	12.7		36.1
	Endrin Ketone	78.8	69.2	84.2	82.3	13.0		2.21
	EPTC	60.1	58.9	39.4	47.5	1.97		18.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Ethion	90.1	96.3	81.8	93.4	6.60	13.3
	Ethoprop	87.6	91.8	120	141	4.67	16.0
	Fenamiphos	105	107	97.4	99.2	2.44	1.80
	Fipronil	99.7	99.6	74.8	84.2	0.133	11.9
	Fipronil Sulfide	89.9	90.0	80.9	98.6	0.0903	19.7
	Fipronil Sulfone	86.2	90.8	66.0	80.4	5.09	19.6
	Fonofos	86.9	89.6	104	120	3.15	13.7
	Gamma-BHC	81.7	71.8	73.1	78.3	12.9	6.82
	Gamma-Chlordane	72.1	62.9	70.0	71.1	13.5	1.53
	Heptachlor	61.2	54.7	54.2	52.3	11.2	3.46
	Heptachlor Epoxide	73.0	65.1	77.2	77.9	11.4	0.862
	Hexazinone	85.0	89.7	90.2	110	5.35	18.0
	Malathion	88.4	93.6	95.2	113	5.73	16.7
	Metalaxyl	95.4	99.5	83.2	96.4	4.16	14.7
	Methoxychlor	72.5	62.5	73.2	73.2	14.8	0.0064
	Metolachlor	105	97.2	85.4	95.0	7.79	9.92
	Metribuzin	190	178	289	289	6.43	0.270
	Mevinphos	28.0	32.8	32.1	40.8	15.8	23.9
	Mirex	59.1	47.9	59.1	57.5	21.0	2.67
	Molinate	61.3	64.2	54.8	59.1	4.70	7.41
	Norflurazon	94.6	95.5	75.8	85.9	0.933	12.4
	Parathion Ethyl	94.0	92.2	95.9	108	2.01	11.6
	Parathion Methyl	98.5	99.3	112	127	0.756	13.1
	Pendimethalin	85.1	83.8	85.9	97.2	1.54	12.3
	Permethrin	69.7	59.2	78.2	82.3	16.3	5.07
	Phorate	81.2	83.5	104	115	2.77	10.2
	Prometon	84.4	82.0	104	86.2	2.86	19.0
	Prometryn	95.6	94.4	84.1	95.9	1.28	13.1
	Simazine	101	101	98.4	118	0.558	18.1
	Terbufos	89.0	93.4	117	135	4.82	14.2
	Terbutylazine	94.7	95.4	91.7	106	0.720	14.9
	Trifluralin	89.0	76.9	125	123	14.6	1.70
EPA 8276	Chlordane	76.8	82.6	83.5	74.9	7.31	10.8
	Toxaphene	112	112	105	98.5	0.431	6.18
EPA 8321B	Glyphosate	112		112	118		5.53
	Pyraclostrobin	105		101	119		16.0
	Sucralose	109		102	107		4.20
SM 2120 B	Color (true)					1.66	
SM 2320 B-97	Total Alkalinity	102				0.376	
SM 2540 C-97	TDS					5.77	
SM 4500 F-C-97	Fluoride	98.8		98.4	99.0		0.482
SM 5310 B-00	Organic Carbon	95.5		91.6	91.6		0.0351
USGS O-2060-01	2,4-D	78.1		60.6	62.0		2.05
	Acetaminophen	130		65.7	94.0		35.4
	Bentazon	38.8		22.4	22.5		0.267
	Carbamazepine	135		122	125		2.54
	Diuron	123		100	102		1.62
	Fenuron	121		103	106		2.53
	Fluridone	123		113	117		3.12
	Imidacloprid	115		218	232		6.49
	Linuron	122		118	114		3.05
	MCPP	79.5		56.1	61.0		8.37
	Primidone	128		131	140		6.98
	Triclopyr	79.6		56.7	57.1		0.773

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1933943
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1933955
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1933955
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1933943
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1933943
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1933944
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1933944
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1933944
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1933944
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1933945
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1933953
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1933954
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1933953
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1933949
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1933949
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1933949
SM 2120 B / E31780	True Color measured at 450 nm	1933943
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1933943
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1933943
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1933943
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1933943
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1933944
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1933949
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1933949

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	10/04/2017			10/04/2017 16:16	DeAsia Armster	1933943
EPA 200.7 Rev. 4.4	10/04/2017	10/05/2017	Elliott D. Healy	10/06/2017	Betina Topolski	1933955
EPA 200.8 Rev. 5.4	10/04/2017	10/05/2017	Elliott D. Healy	10/06/2017	Nadine Brooks	1933955
EPA 300.0 Rev. 2.1	10/04/2017			10/06/2017	Julia Storbeck	1933943
EPA 350.1 Rev. 2.0	10/04/2017			10/12/2017	Sofia Elnemr	1933944
EPA 351.2 Rev. 2.0	10/04/2017	10/12/2017	Adrian Shelby	10/13/2017	Virginia P. Brown	1933944
EPA 353.2 Rev. 2.0	10/04/2017			10/10/2017	Beverly Y. Sanders	1933944
EPA 365.1 Rev. 2.0	10/04/2017	10/09/2017	Sima Feizi	10/10/2017	Lipi Saha	1933944
EPA 365.1 Rev. 2.0 dissolved	10/04/2017			10/04/2017 16:03	Megan Treadwell	1933945
EPA 8270D	10/04/2017	10/05/2017	Rasheda Ghaffari	10/12/2017	Marek Topolski	1933954
	10/04/2017	10/06/2017	Fe-Val Siddell	10/13/2017	Vandana T. Nagar	1933953
EPA 8276	10/04/2017	10/06/2017	Fe-Val Siddell	10/14/2017	John P. Burgos	1933953
EPA 8321B	10/04/2017	10/09/2017	Hoor Shaik	10/10/2017	Juyoung Kim	1933949
	10/04/2017	10/09/2017	Juyoung Kim	10/09/2017	Juyoung Kim	1933949
	10/04/2017	10/10/2017	Hoor Shaik	10/11/2017	Julie Michelle Frank	1933949
SM 2120 B	10/04/2017			10/04/2017 17:23	Tanya Welborn	1933943
SM 2320 B-97	10/04/2017			10/10/2017	Dale L. Simmons	1933943
SM 2540 C-97	10/04/2017			10/06/2017	Yijie Li	1933943
SM 2540 D-97	10/04/2017			10/06/2017	Yijie Li	1933943
SM 4500 F-C-97	10/04/2017			10/10/2017	Dale L. Simmons	1933943
SM 5310 B-00	10/04/2017			10/10/2017	Ping Hua	1933944
USGS O-2060-01	10/04/2017	10/09/2017	Hoor Shaik	10/11/2017	Julie Michelle Frank	1933949