

Chemical Analysis Report

WAS-SECT-2018-04-12-01

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

Event Description: **Big, Big, Staffors, Coon, Stone Mill**

Request ID: **RQ-2018-04-09-20**

Customer: **WAS-SECT**

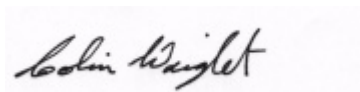
Project ID: **SMP**

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Attn: Curtis Musson

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Certified by: Colin Wright, Program Administrator

Date Certified: 15-MAY-2018 12:38

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Stone Mill Creek Upstream of Dianna St.

Collection Date/Time: 04/12/2018 10:45

Field ID: G2WA0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984304	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P343336	
	EPA 300.0 Rev. 2.1	Chloride	4.5		mg Cl/L	P343494	
		Sulfate	1.5		mg SO4/L	P343493	
	SM 2120 B	Color (true)	120		PCU	P343302	
	SM 2320 B-97	Total Alkalinity	2.9		mg CaCO3/L	P343952	
	SM 2540 C-97	TDS	51		mg/L	P343629	
	SM 2540 D-97	TSS	2	U	mg/L	P343522	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P343956	
1984307	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P343690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P343459	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.071		mg N/L	P343654	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P343596	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P343560	
1984310	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343381	

Ref. Method and Comment:

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

Sample Location: Big Branch Downstream of Road 5

Collection Date/Time: 04/12/2018 10:22

Field ID: G2WA0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984305	EPA 180.1 Rev. 2.0	Turbidity	4.3	A	NTU	P343337	
	EPA 300.0 Rev. 2.1	Chloride	4.3		mg Cl/L	P343494	
		Sulfate	1.0		mg SO4/L	P343493	
	SM 2120 B	Color (true)	53	A	PCU	P343302	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P343952	
	SM 2540 C-97	TDS	34		mg/L	P343629	
	SM 2540 D-97	TSS	2	I	mg/L	P343522	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P343956	
1984308	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P343690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P343459	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P343654	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P343596	
	SM 5310 B-00	Organic Carbon	7.2		mg C/L	P343560	
1984311	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343381	

Ref. Method and Comment:

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

Sample Location: Stone Mill Creek Upstream of Dianna St.

Collection Date/Time: 04/12/2018 10:45

Field ID: G2WA0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984335	EPA 200.7 Rev. 4.4	Calcium	2.89		mg/L	P343487	
		Iron	480		ug/L	P343487	
		Magnesium	0.64		mg/L	P343487	

Field ID: G2WA0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984335	EPA 200.7 Rev. 4.4	Potassium	0.30	U	mg/L	P343487	
		Sodium	2.6		mg/L	P343487	
		Zinc	5.0	U	ug/L	P343487	
	EPA 200.8 Rev. 5.4	Arsenic	0.17	I	ug/L	P343487	
		Cadmium	0.020	U	ug/L	P343487	
		Chromium	0.51	I	ug/L	P343487	
		Copper	0.20	U	ug/L	P343487	
		Lead	0.37		ug/L	P343487	
		Nickel	0.34	I	ug/L	P343487	
		Silver	0.010	U	ug/L	P343487	

Sample Location: Stone Mill Creek Upstream of Dianna St.

Collection Date/Time: 04/12/2018 10:45

Field ID: G2WA0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984323	EPA 8321B	Aldicarb	0.020	U	ug/L	P343184	
		Aldicarb Sulfone	0.0020	U	ug/L	P343184	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P343184	
		Carbaryl	0.0020	U	ug/L	P343184	
		Carbofuran	0.0020	U	ug/L	P343184	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P343184	
		Methiocarb	0.0020	U	ug/L	P343184	
		Methomyl	0.0020	U	ug/L	P343184	
		Oxamyl	0.0020	U	ug/L	P343184	
		Propoxur	0.0020	U	ug/L	P343184	
1984325		2,4-D	0.0020	U	ug/L	P343184	
		Bentazon	8.0E-04	U	ug/L	P343184	
		MCPP	0.0020	U	ug/L	P343184	
		Triclopyr**	0.0040	U	ug/L	P343184	
		Imidacloprid	0.0020	U	ug/L	P343184	MS
		Diuron	0.0020	U	ug/L	P343184	
		Pyraclostrobin**	0.0020	U	ug/L	P343184	
		Primidone**	0.0040	U	ug/L	P343184	
		Linuron	0.0040	U	ug/L	P343184	
		Acetaminophen**	0.0080	U	ug/L	P343184	
		Fenuron	0.016	U	ug/L	P343184	
		Imazapyr**	0.0040	U	ug/L	P343184	
		Carbamazepine**	4.0E-04	U	ug/L	P343184	
		Fluridone**	8.0E-04	U	ug/L	P343184	
		Hydrocodone**	8.0E-04	U	ug/L	P343184	
		Sucralose**	0.10	U	ug/L	P343272	
		Glyphosate**	0.10	U	ug/L	P343272	
		AMPA**	0.10	U	ug/L	P343272	MS
		Endothal**	0.10	U	ug/L	P343272	
		Glufosinate**	0.10	U	ug/L	P343272	

Field ID: G2WA0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984331	EPA 8270D	Aldrin	4.3	U	ng/L	P343276	
		Alpha-BHC	2.2	U	ng/L	P343276	
		Beta-BHC	4.3	U	ng/L	P343276	
		Delta-BHC	4.3	U	ng/L	P343276	
		Gamma-BHC	4.3	U	ng/L	P343276	
		Carbophenothion	4.3	U	ng/L	P343276	
		Chlorothalonil	2.2	U	ng/L	P343276	RPD
		Cypermethrin	22	U	ng/L	P343276	
		DDD-p,p'	3.2	U	ng/L	P343276	
		DDE-p,p'	3.2	U	ng/L	P343276	
		DDT-p,p'	3.2	U	ng/L	P343276	
		Dieldrin	4.3	U	ng/L	P343276	
		Endosulfan I	4.3	U	ng/L	P343276	
		Endosulfan II	4.3	U	ng/L	P343276	
		Endosulfan Sulfate	2.2	U	ng/L	P343276	
		Endrin	2.2	U	ng/L	P343276	
		Endrin Aldehyde	2.2	U	ng/L	P343276	RPD
		Heptachlor	1.6	U	ng/L	P343276	
		Heptachlor Epoxide	2.2	U	ng/L	P343276	
		Methoxychlor	4.3	U	ng/L	P343276	
		Mirex	2.2	U	ng/L	P343276	
		Permethrin	11	U	ng/L	P343276	
		Trifluralin	1.1	U	ng/L	P343276	
		Alpha-Chlordane	1.1	U	ng/L	P343276	
		Gamma-Chlordane	1.1	U	ng/L	P343276	
		Endrin Ketone	2.2	U	ng/L	P343276	
		Dicofol	32	U	ng/L	P343276	
	EPA 8276	Chlordane**	2.7	U	ng/L	P343276	
		Toxaphene**	32	U	ng/L	P343276	
1984333	EPA 8270D	Alachlor	0.25	U	ng/L	P343441	
		Ametryn	0.32	U	ng/L	P343441	MS
		Atrazine	0.72	I	ng/L	P343441	
		Atrazine Desethyl	1.5	U	ng/L	P343441	
		Azinphos Methyl	2.2	U	ng/L	P343441	
		Bromacil	0.49	U	ng/L	P343441	
		Butylate	0.39	U	ng/L	P343441	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P343441	
		Chlorpyrifos Methyl	0.098	U	ng/L	P343441	
		Demeton	2.0	U	ng/L	P343441	
		Diazinon	0.12	U	ng/L	P343441	
		Disulfoton	0.49	U	ng/L	P343441	RPD
		EPTC	1.2	U	ng/L	P343441	
		Ethion	0.15	U	ng/L	P343441	
		Ethoprop	0.098	U	ng/L	P343441	
		Fenamiphos	0.25	U	ng/L	P343441	

Field ID: G2WA0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984333	EPA 8270D	Fipronil	0.25	U	ng/L	P343441	
		Fipronil Sulfide	0.15	U	ng/L	P343441	
		Fipronil Sulfone	0.15	U	ng/L	P343441	
		Hexazinone	0.49	U	ng/L	P343441	
		Malathion	0.34	U	ng/L	P343441	
		Metribuzin	0.20	UJ	ng/L	P343441	CCV
		Mevinphos	0.49	U	ng/L	P343441	
		Molinate	0.29	U	ng/L	P343441	
		Norflurazon	0.49	U	ng/L	P343441	RPD
		Pendimethalin	0.98	U	ng/L	P343441	
		Phorate	0.25	U	ng/L	P343441	
		Prometon	0.88	U	ng/L	P343441	
		Prometryn	0.20	U	ng/L	P343441	
		Simazine	0.49	U	ng/L	P343441	
		Terbufos	0.098	U	ng/L	P343441	
		Terbuthylazine	0.42	U	ng/L	P343441	
		Fonofos	0.20	U	ng/L	P343441	
		Metalaxyl	0.25	U	ng/L	P343441	RPD
		Metolachlor	0.25	U	ng/L	P343441	
		Acetochlor	0.25	U	ng/L	P343441	
		Cyanazine	0.49	UJ	ng/L	P343441	CCV
		Parathion Ethyl	0.25	U	ng/L	P343441	
		Parathion Methyl	0.25	U	ng/L	P343441	

Ref. Method and Comment:

EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Stafford Creek 100 meters upstream of SR 69 **Collection Date/Time: 04/12/2018 11:46**

Field ID: G2WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984306	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P343337	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P343494	
		Sulfate	1.2		mg SO4/L	P343493	
	SM 2120 B	Color (true)	90		PCU	P343302	
	SM 2320 B-97	Total Alkalinity	9.4		mg CaCO3/L	P343952	
	SM 2540 C-97	TDS	53		mg/L	P343629	
	SM 2540 D-97	TSS	2	U	mg/L	P343522	
	SM 4500 F-C-97	Fluoride	0.036	I	mg F/L	P343956	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P343690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P343459	
1984309	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P343654	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P343596	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P343560	
	EPA 365.1 Rev. 2.0	O-Phosphate-P dissolved	0.004	U	mg P/L	P343381	

Field ID: G2WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment: SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.							

Sample Location: Stafford Creek 100 meters upstream of SR 69 Collection Date/Time: 04/12/2018 11:46

Field ID: G2WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984336	EPA 200.7 Rev. 4.4	Calcium	5.12		mg/L	P343487	
		Iron	480		ug/L	P343487	
		Magnesium	2.37		mg/L	P343487	
		Potassium	0.67	I	mg/L	P343487	
		Sodium	3.0		mg/L	P343487	
		Zinc	5.0	U	ug/L	P343487	
	EPA 200.8 Rev. 5.4	Arsenic	0.38		ug/L	P343487	
		Cadmium	0.020	U	ug/L	P343487	
		Chromium	0.46	I	ug/L	P343487	
		Copper	0.24	I	ug/L	P343487	
		Lead	0.20	I	ug/L	P343487	
		Nickel	0.29	I	ug/L	P343487	
		Silver	0.010	U	ug/L	P343487	

Sample Location: Stafford Creek 100 meters upstream of SR 69 Collection Date/Time: 04/12/2018 11:46

Field ID: G2WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984324	EPA 8321B	Aldicarb	0.020	U	ug/L	P343184	
		Aldicarb Sulfone	0.0020	U	ug/L	P343184	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P343184	
		Carbaryl	0.0020	U	ug/L	P343184	
		Carbofuran	0.0020	U	ug/L	P343184	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P343184	
		Methiocarb	0.0020	U	ug/L	P343184	
		Methomyl	0.0020	U	ug/L	P343184	
		Oxamyl	0.0020	U	ug/L	P343184	
		Propoxur	0.0020	U	ug/L	P343184	
1984326		2,4-D	0.0020	U	ug/L	P343184	
		Bentazon	8.0E-04	U	ug/L	P343184	
		MCP	0.0020	U	ug/L	P343184	
		Triclopyr**	0.0040	U	ug/L	P343184	
		Imidacloprid	0.0020	U	ug/L	P343184	MS
		Diuron	0.0020	U	ug/L	P343184	
		Pyraclostrobin**	0.0020	U	ug/L	P343184	
		Primidone**	0.0040	U	ug/L	P343184	
		Linuron	0.0040	U	ug/L	P343184	
		Acetaminophen**	0.0080	U	ug/L	P343184	
	Fenuron	0.016	U	ug/L	P343184		

Field ID: G2WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984326	EPA 8321B	Imazapyr**	0.032		ug/L	P343184	
		Carbamazepine**	4.0E-04	U	ug/L	P343184	
		Fluridone**	8.0E-04	U	ug/L	P343184	
		Hydrocodone**	8.0E-04	U	ug/L	P343184	
		Sucralose**	0.10	U	ug/L	P343272	
		Glyphosate**	0.10	U	ug/L	P343272	
		AMPA**	0.10	U	ug/L	P343272	MS
		Endothall**	0.10	U	ug/L	P343272	
		Glufosinate**	0.10	U	ug/L	P343272	
1984332	EPA 8270D	Aldrin	4.2	U	ng/L	P343276	
		Alpha-BHC	2.1	U	ng/L	P343276	
		Beta-BHC	4.2	U	ng/L	P343276	
		Delta-BHC	4.2	U	ng/L	P343276	
		Gamma-BHC	4.2	U	ng/L	P343276	
		Carbophenothion	4.2	U	ng/L	P343276	
		Chlorothalonil	2.1	U	ng/L	P343276	RPD
		Cypermethrin	21	U	ng/L	P343276	
		DDD-p,p'	3.2	U	ng/L	P343276	
		DDE-p,p'	3.2	U	ng/L	P343276	
		DDT-p,p'	3.2	U	ng/L	P343276	
		Dieldrin	4.2	U	ng/L	P343276	
		Endosulfan I	4.2	U	ng/L	P343276	
		Endosulfan II	4.2	U	ng/L	P343276	
		Endosulfan Sulfate	2.1	U	ng/L	P343276	
		Endrin	2.1	U	ng/L	P343276	
		Endrin Aldehyde	2.1	U	ng/L	P343276	RPD
		Heptachlor	1.6	U	ng/L	P343276	
		Heptachlor Epoxide	2.1	U	ng/L	P343276	
		Methoxychlor	4.2	U	ng/L	P343276	
		Mirex	2.1	U	ng/L	P343276	
		Permethrin	11	U	ng/L	P343276	
		Trifluralin	1.1	U	ng/L	P343276	
		Alpha-Chlordane	1.1	U	ng/L	P343276	
		Gamma-Chlordane	1.1	U	ng/L	P343276	
		Endrin Ketone	2.1	U	ng/L	P343276	
		Dicofol	32	U	ng/L	P343276	
		Chlordane**	4.9	I	ng/L	P343276	
		Toxaphene**	32	U	ng/L	P343276	
	EPA 8276						
1984334	EPA 8270D	Alachlor	0.24	U	ng/L	P343441	
		Ametryn	0.32	U	ng/L	P343441	MS
		Atrazine	2.3		ng/L	P343441	
		Atrazine Desethyl	1.5	U	ng/L	P343441	
		Azinphos Methyl	2.2	U	ng/L	P343441	
		Bromacil	0.49	U	ng/L	P343441	
		Butylate	0.39	U	ng/L	P343441	

Field ID: G2WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984334	EPA 8270D	Chlorpyrifos Ethyl	0.24	U	ng/L	P343441	
		Chlorpyrifos Methyl	0.097	U	ng/L	P343441	
		Demeton	1.9	U	ng/L	P343441	
		Diazinon	0.12	U	ng/L	P343441	
		Disulfoton	0.49	U	ng/L	P343441	RPD
		EPTC	1.2	U	ng/L	P343441	
		Ethion	0.15	U	ng/L	P343441	
		Ethoprop	0.097	U	ng/L	P343441	
		Fenamiphos	0.24	U	ng/L	P343441	
		Fipronil	0.24	U	ng/L	P343441	
		Fipronil Sulfide	0.15	U	ng/L	P343441	
		Fipronil Sulfone	0.15	U	ng/L	P343441	
		Hexazinone	0.49	U	ng/L	P343441	
		Malathion	0.34	U	ng/L	P343441	
		Metribuzin	0.19	UJ	ng/L	P343441	CCV
		Mevinphos	0.49	U	ng/L	P343441	
		Molinate	0.29	U	ng/L	P343441	
		Norflurazon	0.49	U	ng/L	P343441	RPD
		Pendimethalin	0.97	U	ng/L	P343441	
		Phorate	0.24	U	ng/L	P343441	
		Prometon	0.88	U	ng/L	P343441	
		Prometryn	0.19	U	ng/L	P343441	
		Simazine	0.49	U	ng/L	P343441	
		Terbufos	0.097	U	ng/L	P343441	
		Terbuthylazine	0.41	U	ng/L	P343441	
		Fonofos	0.19	U	ng/L	P343441	
		Metalaxyl	0.24	U	ng/L	P343441	RPD
		Metolachlor	0.24	U	ng/L	P343441	
		Acetochlor	0.24	U	ng/L	P343441	
		Cyanazine	0.49	UJ	ng/L	P343441	CCV
		Parathion Ethyl	0.24	U	ng/L	P343441	
		Parathion Methyl	0.24	U	ng/L	P343441	

Ref. Method and Comment:

EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Big Branch 50 meters upstream of CR 67

Collection Date/Time: 04/12/2018 08:50

Field ID: G1WA0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984322	EPA 8321B	2,4-D	0.0020	U	ug/L	P343321	
		Bentazon	8.0E-04	U	ug/L	P343321	
		MCP	0.0020	U	ug/L	P343321	
		Triclopyr**	0.0040	U	ug/L	P343321	
		Imidacloprid	0.0020	U	ug/L	P343321	MS, RPD
		Diuron	0.0020	U	ug/L	P343321	RPD

Field ID: G1WA0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1984322	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P343321	MS, RPD
		Primidone**	0.0040	U	ug/L	P343321	MS, RPD
		Linuron	0.0040	U	ug/L	P343321	
		Acetaminophen**	0.0080	U	ug/L	P343321	MS, RPD
		Fenuron	0.016	U	ug/L	P343321	RPD
		Imazapyr**	0.0040	U	ug/L	P343321	
		Carbamazepine**	4.0E-04	U	ug/L	P343321	RPD
		Fluridone**	8.0E-04	U	ug/L	P343321	
		Hydrocodone**	8.0E-04	U	ug/L	P343321	
		Sucralose**	0.10	U	ug/L	P343272	

Ref. Method and Comment:
EPA 8321B: MS accuracy and precision for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P343336

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P343337

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P343487

Component	Result	Code	Units
Calcium	0.097	I	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: P343487

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343493

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343494

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343690

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343459

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343654

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343596

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343381

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

Reference Method: EPA 8270D
Batch ID: P343276

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D**Batch ID: P343276**

Component	Result	Code	Units
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: P343441**

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.25	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D
Batch ID: P343441

Component	Result	Code	Units
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

Reference Method: EPA 8276
Batch ID: P343276

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P343184

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P343272

Component	Result	Code	Units
AMPA	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P343272

Component	Result	Code	Units
Endothall	0.10	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P343321

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	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P343302

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P343952

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

Reference Method: SM 2540 C-97
Batch ID: P343629

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P343522

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P343956

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P343560

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P343487

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	104		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	102		P	85 - 115
Sodium	110		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343487

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	96.4		P	85 - 115
Copper	95.7		P	85 - 115
Lead	96.5		P	85 - 115
Nickel	98.2		P	85 - 115
Silver	98.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343494

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.1		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343459

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343654

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343596

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343381

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.0		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P343276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	33.3	33.3	P/P	24 - 89.0
Alpha-BHC	81.3	89.0	P/P	58 - 117
Alpha-Chlordane	79.6	80.9	P/P	56 - 115
Beta-BHC	89.8	97.5	P/P	55 - 137
Carbophenothion	98.5	110	P/P	37 - 145
Chlorothalonil	68.3	68.9	P/P	26 - 163
Cypermethrin	78.8	81.2	P/P	42 - 156
DDD-p,p'	91.2	93.5	P/P	59 - 129
DDE-p,p'	81.9	84.2	P/P	52 - 117
DDT-p,p'	87.9	89.8	P/P	48 - 128
Delta-BHC	91.0	97.9	P/P	59 - 158
Dicofol	78.2	80.3	P/P	19 - 124
Dieldrin	79.0	87.0	P/P	57 - 126
Endosulfan I	82.6	80.9	P/P	59 - 133
Endosulfan II	91.8	86.6	P/P	58 - 148
Endosulfan Sulfate	93.0	83.5	P/P	56 - 135
Endrin	79.8	90.6	P/P	50 - 140
Endrin Aldehyde	73.3	71.2	P/P	47 - 141
Endrin Ketone	87.2	85.0	P/P	63 - 123
Gamma-BHC	83.6	87.0	P/P	59 - 132
Gamma-Chlordane	76.2	77.4	P/P	55 - 112
Heptachlor	66.6	67.0	P/P	45 - 102
Heptachlor Epoxide	77.7	79.0	P/P	61 - 116
Methoxychlor	89.0	92.4	P/P	60 - 133
Mirex	75.7	77.2	P/P	40 - 98.0
Permethrin	81.8	82.4	P/P	45 - 131
Trifluralin	79.7	82.0	P/P	38 - 179

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P343441

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.5	90.2	P/P	74 - 119
Alachlor	103	91.1	P/P	75 - 118
Ametryn	71.3	65.7	P/P	59 - 137
Atrazine	98.9	90.2	P/P	73 - 120
Atrazine Desethyl	83.0	92.5	P/P	19 - 129
Azinphos Methyl	131	120	P/P	65 - 181
Bromacil	94.0	91.3	P/P	43 - 123
Butylate	52.8	68.1	P/P	28 - 85.0
Chlorpyrifos Ethyl	84.9	98.9	P/P	55 - 112
Chlorpyrifos Methyl	93.8	99.6	P/P	35 - 124
Cyanazine	192	201	P/P	26 - 262
Demeton	56.2	60.6	P/P	43 - 122
Diazinon	101	103	P/P	72 - 120
Disulfoton	70.6	87.9	P/P	45 - 137
EPTC	46.2	58.4	P/P	28 - 95.0
Ethion	103	92.7	P/P	63 - 127
Ethoprop	71.8	92.3	P/P	63 - 109
Fenamiphos	88.3	96.8	P/P	66 - 136
Fipronil	90.1	84.9	P/P	63 - 126
Fipronil Sulfide	73.1	70.3	P/P	59 - 123
Fipronil Sulfone	78.8	67.2	P/P	56 - 122
Fonofos	76.7	88.1	P/P	64 - 114
Hexazinone	98.7	88.8	P/P	49 - 144
Malathion	87.4	95.9	P/P	68 - 131
Metaxyl	86.9	82.0	P/P	57 - 126
Metolachlor	94.5	98.9	P/P	75 - 118
Metribuzin	97.6	120	P/P	46 - 169
Mevinphos	65.7	73.7	P/P	34 - 126
Molinate	60.4	72.8	P/P	37 - 101
Norflurazon	94.9	77.8	P/P	63 - 127
Parathion Ethyl	85.0	85.8	P/P	78 - 109
Parathion Methyl	116	99.4	P/P	74 - 123
Pendimethalin	97.0	92.2	P/P	51 - 130
Phorate	75.5	87.8	P/P	53 - 116
Prometon	95.0	88.7	P/P	66 - 124
Prometryn	91.7	69.2	P/P	66 - 124
Simazine	88.5	93.2	P/P	62 - 134
Terbufos	81.0	95.3	P/P	59 - 115
Terbutylazine	94.0	86.7	P/P	76 - 113

Reference Method: EPA 8276

Batch ID: P343276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	108	92.2	P/P	47 - 125
Toxaphene	75.9	82.4	P/P	46 - 147

Reference Method: EPA 8321B

Batch ID: P343184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	78.5		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P343184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	94.2		P	40 - 150
Acetaminophen	91.0		P	30 - 150
Aldicarb	77.2		P	30 - 150
Aldicarb Sulfone	95.3		P	40 - 150
Aldicarb Sulfoxide	90.6		P	40 - 150
Bentazon	68.4		P	30 - 150
Carbamazepine	80.4		P	40 - 150
Carbaryl	63.4		P	40 - 150
Carbofuran	69.1		P	40 - 150
Diuron	63.8		P	40 - 150
Fenuron	110		P	40 - 150
Fluridone	61.9		P	40 - 150
Hydrocodone	103		P	40 - 150
Imazapyr	65.5		P	40 - 150
Imidacloprid	104		P	40 - 160
Linuron	72.0		P	40 - 150
MCPP	64.0		P	40 - 150
Methiocarb	65.9		P	40 - 150
Methomyl	104		P	40 - 150
Oxamyl	88.6		P	40 - 150
Primidone	106		P	40 - 150
Propoxur	68.2		P	40 - 150
Pyraclostrobin	69.2		P	40 - 150
Triclopyr	63.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P343272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	81.1		P	40 - 140
Endothall	100		P	40 - 140
Glufosinate	68.5		P	40 - 140
Glyphosate	94.4		P	40 - 140
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P343321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.4		P	40 - 150
Acetaminophen	115		P	30 - 150
Bentazon	105		P	30 - 150
Carbamazepine	101		P	40 - 150
Diuron	69.5		P	40 - 150
Fenuron	126		P	40 - 150
Fluridone	49.2		P	40 - 150
Hydrocodone	106		P	40 - 150
Imazapyr	82.5		P	40 - 150
Imidacloprid	108		P	40 - 160
Linuron	66.9		P	40 - 150
MCPP	68.9		P	40 - 150
Primidone	119		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P343321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	54.9		P	40 - 150
Triclopyr	76.9		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P343952

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P343956

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343560

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P343487

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984354	Calcium	102		P	80 - 120
1984354	Iron	104		P	80 - 120
1984354	Magnesium	108		P	80 - 120
1984354	Potassium	100		P	80 - 120
1984354	Sodium	104		P	80 - 120
1984354	Zinc	101		P	80 - 120
1984472	Calcium	105	101	P/P	80 - 120
1984472	Iron	106	103	P/P	80 - 120
1984472	Magnesium	112	109	P/P	80 - 120
1984472	Potassium	109	104	P/P	80 - 120
1984472	Sodium	106	103	P/P	80 - 120
1984472	Zinc	103	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343487

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984354	Arsenic	99.9		P	80 - 120
1984354	Cadmium	101		P	80 - 120
1984354	Chromium	97.4		P	80 - 120
1984354	Copper	93.6		P	80 - 120
1984354	Lead	96.8		P	80 - 120
1984354	Nickel	98.0		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343487

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984354	Silver	98.3		P	80 - 120
1984472	Arsenic	99.4	99.4	P/P	80 - 120
1984472	Cadmium	101	100	P/P	80 - 120
1984472	Chromium	97.3	96.2	P/P	80 - 120
1984472	Copper	95.0	94.7	P/P	80 - 120
1984472	Lead	96.3	96.8	P/P	80 - 120
1984472	Nickel	98.1	97.0	P/P	80 - 120
1984472	Silver	98.5	98.0	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984046	Sulfate	94.3		P	90 - 110
1984328	Sulfate	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343494

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984046	Chloride	99.3		P	90 - 110
1984328	Chloride	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984240	Ammonia-N	97.1	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343459

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984308	Kjeldahl Nitrogen	101	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984238	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984329	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984242	O-Phosphate-P	97.5	96.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P343276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984036	Aldrin	48.9	49.3	P/P	26 - 96.0
1984036	Alpha-BHC	92.5	88.9	P/P	51 - 123
1984036	Alpha-Chlordane	78.5	81.8	P/P	45 - 120
1984036	Beta-BHC	109	106	P/P	43 - 146
1984036	Carbophenothion	112	120	P/P	26 - 179
1984036	Chlorothalonil	80.4	56.8	P/P	10 - 215
1984036	Cypermethrin	79.7	78.4	P/P	35 - 169
1984036	DDD-p,p'	91.6	91.5	P/P	49 - 131
1984036	DDE-p,p'	83.4	85.7	P/P	39 - 127
1984036	DDT-p,p'	92.8	86.0	P/P	49 - 120
1984036	Delta-BHC	127	115	P/P	49 - 187
1984036	Dicofol	86.1	82.3	P/P	10 - 129
1984036	Dieldrin	80.6	89.2	P/P	46 - 132
1984036	Endosulfan I	80.6	84.3	P/P	57 - 130
1984036	Endosulfan II	82.8	92.4	P/P	52 - 148
1984036	Endosulfan Sulfate	90.7	88.2	P/P	55 - 129
1984036	Endrin	89.5	82.2	P/P	45 - 133
1984036	Endrin Aldehyde	68.2	48.9	P/P	26 - 140
1984036	Endrin Ketone	98.7	95.4	P/P	60 - 125
1984036	Gamma-BHC	101	74.8	P/P	50 - 145
1984036	Gamma-Chlordane	77.4	80.7	P/P	44 - 118
1984036	Heptachlor	63.2	63.6	P/P	35 - 106
1984036	Heptachlor Epoxide	80.6	83.8	P/P	52 - 123
1984036	Methoxychlor	82.2	88.0	P/P	54 - 132
1984036	Mirex	74.8	74.8	P/P	36 - 107
1984036	Permethrin	83.2	83.9	P/P	47 - 135
1984036	Trifluralin	81.2	79.8	P/P	32 - 228

Reference Method: EPA 8270D

Batch ID: P343441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1983041	Acetochlor	88.1	113	P/P	67 - 125
1983041	Alachlor	91.3	114	P/P	69 - 123
1983041	Ametryn	206	165	F/F	52 - 151
1983041	Atrazine Desethyl	83.4	76.7	P/P	10 - 129
1983041	Azinphos Methyl	118	140	P/P	48 - 200
1983041	Bromacil	79.2	88.0	P/P	46 - 130
1983041	Butylate	50.3	54.4	P/P	10 - 85.0
1983041	Chlorpyrifos Ethyl	77.1	75.9	P/P	54 - 115
1983041	Chlorpyrifos Methyl	93.2	95.1	P/P	44 - 117
1983041	Cyanazine	177	183	P/P	10 - 262
1983041	Demeton	88.3	73.1	P/P	24 - 145
1983041	Diazinon	104	121	P/P	66 - 129
1983041	Disulfoton	92.7	65.9	P/P	45 - 139
1983041	EPTC	43.2	45.6	P/P	10 - 86.0
1983041	Ethion	92.5	93.7	P/P	59 - 133
1983041	Ethoprop	88.9	92.3	P/P	54 - 116
1983041	Fenamiphos	76.2	82.0	P/P	55 - 140
1983041	Fipronil	78.1	74.6	P/P	37 - 142
1983041	Fipronil Sulfide	57.0	50.4	P/P	37 - 130
1983041	Fipronil Sulfone	67.0	50.1	P/P	18 - 143

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P343441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1983041	Fonofos	88.9	85.8	P/P	55 - 118
1983041	Hexazinone	73.7	88.6	P/P	62 - 140
1983041	Malathion	75.3	79.9	P/P	64 - 132
1983041	Metalaxyl	65.1	94.5	P/P	55 - 129
1983041	Metolachlor	72.7	95.3	P/P	56 - 137
1983041	Metribuzin	173	199	P/P	16 - 218
1983041	Mevinphos	81.9	66.8	P/P	34 - 129
1983041	Molinate	69.0	76.1	P/P	16 - 99.0
1983041	Norflurazon	48.9	72.4	P/P	43 - 135
1983041	Parathion Ethyl	75.5	88.1	P/P	71 - 112
1983041	Parathion Methyl	97.7	120	P/P	65 - 127
1983041	Pendimethalin	80.6	107	P/P	35 - 159
1983041	Phorate	88.0	69.2	P/P	41 - 129
1983041	Prometon	89.9	102	P/P	56 - 140
1983041	Prometryn	74.8	95.6	P/P	65 - 130
1983041	Simazine	86.3	112	P/P	54 - 148
1983041	Terbufos	91.9	88.4	P/P	53 - 126
1983041	Terbuthylazine	89.0	108	P/P	73 - 114

Reference Method: EPA 8276
 Batch ID: P343276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1983745	Chlordane	83.6	74.8	P/P	41 - 134
1983745	Toxaphene	57.2	50.9	P/P	39 - 158

Reference Method: EPA 8321B
 Batch ID: P343184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1983224	2,4-D	130	136	P/P	40 - 150
1983224	3-Hydroxycarbofuran	131	126	P/P	40 - 150
1983224	Acetaminophen	122	128	P/P	30 - 150
1983224	Aldicarb	73.1	91.2	P/P	30 - 150
1983224	Aldicarb Sulfone	141	147	P/P	40 - 150
1983224	Aldicarb Sulfoxide	102	99.4	P/P	40 - 150
1983224	Bentazon	41.1	43.3	P/P	30 - 150
1983224	Carbamazepine	103	103	P/P	40 - 150
1983224	Carbaryl	67.6	65.3	P/P	40 - 150
1983224	Carbofuran	77.0	73.6	P/P	40 - 150
1983224	Diuron	79.4	73.3	P/P	40 - 150
1983224	Fenuron	111	108	P/P	40 - 150
1983224	Fluridone	61.8	70.7	P/P	40 - 150
1983224	Hydrocodone	147	141	P/P	40 - 150
1983224	Imazapyr	89.8	74.8	P/P	40 - 150
1983224	Imidacloprid	248	245	F/F	40 - 160
1983224	Linuron	89.4	88.5	P/P	40 - 150
1983224	MCPP	96.0	99.7	P/P	40 - 150
1983224	Methiocarb	78.0	79.1	P/P	40 - 150
1983224	Methomyl	106	119	P/P	40 - 150
1983224	Oxamyl	102	109	P/P	40 - 150
1983224	Primidone	130	122	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P343184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1983224	Propoxur	76.0	69.4	P/P	40 - 150
1983224	Pyraclostrobin	75.5	75.8	P/P	40 - 150
1983224	Triclopyr	92.0	96.4	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P343272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1983451	AMPA	34.7	35.8	F/F	40 - 140
1983451	Endothall	113	112	P/P	40 - 140
1983451	Glufosinate	92.3	92.6	P/P	40 - 140
1983451	Glyphosate	61.1	61.9	P/P	40 - 140
1983451	Sucralose	60.7	59.3	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P343321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984892	2,4-D	91.3	98.0	P/P	40 - 150
1984892	Acetaminophen	158	97.8	F/P	30 - 150
1984892	Bentazon	108	113	P/P	30 - 150
1984892	Carbamazepine	127	92.0	P/P	40 - 150
1984892	Diuron	84.1	58.9	P/P	40 - 150
1984892	Fenuron	138	90.5	P/P	40 - 150
1984892	Fluridone	54.9	40.4	P/P	40 - 150
1984892	Hydrocodone	122	98.6	P/P	40 - 150
1984892	Imidacloprid	276	179	F/F	40 - 160
1984892	Linuron	82.9	64.6	P/P	40 - 150
1984892	MCP	83.6	85.8	P/P	40 - 150
1984892	Primidone	153	91.0	F/P	40 - 150
1984892	Pyraclostrobin	69.8	38.1	P/F	40 - 150
1984892	Triclopyr	81.7	90.6	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P343956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984236	Fluoride	95.2	95.7	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P343560

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984026	Organic Carbon	95.2	95.6	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P343336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984235	Turbidity	1.40	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P343337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984305	Turbidity	4.64	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P343487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984472	Calcium	2.41	Spike	P	0 - 20
1984472	Iron	2.92	Spike	P	0 - 20
1984472	Magnesium	2.59	Spike	P	0 - 20
1984472	Potassium	3.60	Spike	P	0 - 20
1984472	Sodium	1.88	Spike	P	0 - 20
1984472	Zinc	1.81	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984472	Arsenic	0.0116	Spike	P	0 - 20
1984472	Cadmium	0.984	Spike	P	0 - 20
1984472	Chromium	1.21	Spike	P	0 - 20
1984472	Copper	0.375	Spike	P	0 - 20
1984472	Lead	0.443	Spike	P	0 - 20
1984472	Nickel	1.14	Spike	P	0 - 20
1984472	Silver	0.541	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984046	Sulfate	7.71	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984046	Chloride	6.54	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984240	Ammonia-N	0.0975	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343459

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984308	Kjeldahl Nitrogen	3.55	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984238	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984329	Total-P	0.883	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984242	O-Phosphate-P	0.590	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P343276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984036	Aldrin	0.984	Spike	P	0 - 30
1984036	Alpha-BHC	4.04	Spike	P	0 - 30
1984036	Alpha-Chlordane	4.14	Spike	P	0 - 30
1984036	Beta-BHC	3.28	Spike	P	0 - 30
1984036	Carbophenothion	6.96	Spike	P	0 - 30
1984036	Chlorothalonil	34.3	Spike	F	0 - 30
1984036	Cypermethrin	1.53	Spike	P	0 - 30
1984036	DDD-p,p'	0.169	Spike	P	0 - 30
1984036	DDE-p,p'	2.70	Spike	P	0 - 30
1984036	DDT-p,p'	7.59	Spike	P	0 - 30
1984036	Delta-BHC	10.6	Spike	P	0 - 30
1984036	Dicofol	4.60	Spike	P	0 - 30
1984036	Dieldrin	5.31	Spike	P	0 - 30
1984036	Endosulfan I	4.54	Spike	P	0 - 30
1984036	Endosulfan II	11.0	Spike	P	0 - 30
1984036	Endosulfan Sulfate	2.78	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P343276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984036	Endrin	8.53	Spike	P	0 - 30
1984036	Endrin Aldehyde	32.9	Spike	F	0 - 30
1984036	Endrin Ketone	3.41	Spike	P	0 - 30
1984036	Gamma-BHC	29.4	Spike	P	0 - 30
1984036	Gamma-Chlordane	4.22	Spike	P	0 - 30
1984036	Heptachlor	0.540	Spike	P	0 - 30
1984036	Heptachlor Epoxide	3.89	Spike	P	0 - 30
1984036	Methoxychlor	6.83	Spike	P	0 - 30
1984036	Mirex	0.00301	Spike	P	0 - 30
1984036	Permethrin	0.828	Spike	P	0 - 30
1984036	Trifluralin	1.71	Spike	P	0 - 30
LFB	Aldrin	0.0278	LCS	P	0 - 30
LFB	Alpha-BHC	9.11	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.55	LCS	P	0 - 30
LFB	Beta-BHC	8.31	LCS	P	0 - 30
LFB	Carbophenothion	10.9	LCS	P	0 - 30
LFB	Chlorothalonil	0.889	LCS	P	0 - 30
LFB	Cypermethrin	3.10	LCS	P	0 - 30
LFB	DDD-p,p'	2.50	LCS	P	0 - 30
LFB	DDE-p,p'	2.74	LCS	P	0 - 30
LFB	DDT-p,p'	2.09	LCS	P	0 - 30
LFB	Delta-BHC	7.38	LCS	P	0 - 30
LFB	Dicofol	2.71	LCS	P	0 - 30
LFB	Dieldrin	9.63	LCS	P	0 - 30
LFB	Endosulfan I	2.16	LCS	P	0 - 30
LFB	Endosulfan II	5.79	LCS	P	0 - 30
LFB	Endosulfan Sulfate	10.8	LCS	P	0 - 30
LFB	Endrin	12.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	2.84	LCS	P	0 - 30
LFB	Endrin Ketone	2.55	LCS	P	0 - 30
LFB	Gamma-BHC	4.03	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.64	LCS	P	0 - 30
LFB	Heptachlor	0.680	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.64	LCS	P	0 - 30
LFB	Methoxychlor	3.72	LCS	P	0 - 30
LFB	Mirex	1.92	LCS	P	0 - 30
LFB	Permethrin	0.738	LCS	P	0 - 30
LFB	Trifluralin	2.82	LCS	P	0 - 30

Reference Method: EPA 8270D

Batch ID: P343441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983041	Acetochlor	24.6	Spike	P	0 - 30
1983041	Alachlor	21.7	Spike	P	0 - 30
1983041	Ametryn	21.9	Spike	P	0 - 30
1983041	Atrazine	14.6	Spike	P	0 - 30
1983041	Atrazine Desethyl	8.29	Spike	P	0 - 30
1983041	Azinphos Methyl	16.5	Spike	P	0 - 30
1983041	Bromacil	10.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P343441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983041	Butylate	7.87	Spike	P	0 - 30
1983041	Chlorpyrifos Ethyl	1.55	Spike	P	0 - 30
1983041	Chlorpyrifos Methyl	1.99	Spike	P	0 - 30
1983041	Cyanazine	3.42	Spike	P	0 - 30
1983041	Demeton	18.8	Spike	P	0 - 30
1983041	Diazinon	15.1	Spike	P	0 - 30
1983041	Disulfoton	33.7	Spike	F	0 - 30
1983041	EPTC	5.45	Spike	P	0 - 30
1983041	Ethion	1.25	Spike	P	0 - 30
1983041	Ethoprop	3.80	Spike	P	0 - 30
1983041	Fenamiphos	7.25	Spike	P	0 - 30
1983041	Fipronil	4.58	Spike	P	0 - 30
1983041	Fipronil Sulfide	12.2	Spike	P	0 - 30
1983041	Fipronil Sulfone	28.8	Spike	P	0 - 30
1983041	Fonofos	3.60	Spike	P	0 - 30
1983041	Hexazinone	18.4	Spike	P	0 - 30
1983041	Malathion	5.86	Spike	P	0 - 30
1983041	Metalaxyl	36.8	Spike	F	0 - 30
1983041	Metolachlor	25.5	Spike	P	0 - 30
1983041	Metribuzin	14.2	Spike	P	0 - 30
1983041	Mevinphos	20.2	Spike	P	0 - 30
1983041	Molinate	9.77	Spike	P	0 - 30
1983041	Norflurazon	38.7	Spike	F	0 - 30
1983041	Parathion Ethyl	15.4	Spike	P	0 - 30
1983041	Parathion Methyl	20.6	Spike	P	0 - 30
1983041	Pendimethalin	28.1	Spike	P	0 - 30
1983041	Phorate	24.0	Spike	P	0 - 30
1983041	Prometon	12.2	Spike	P	0 - 30
1983041	Prometryn	24.4	Spike	P	0 - 30
1983041	Simazine	26.3	Spike	P	0 - 30
1983041	Terbufos	3.87	Spike	P	0 - 30
1983041	Terbutylazine	19.1	Spike	P	0 - 30
LFB	Acetochlor	5.79	LCS	P	0 - 30
LFB	Alachlor	11.8	LCS	P	0 - 30
LFB	Ametryn	8.12	LCS	P	0 - 30
LFB	Atrazine	9.17	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.7	LCS	P	0 - 30
LFB	Azinphos Methyl	8.77	LCS	P	0 - 30
LFB	Bromacil	2.88	LCS	P	0 - 30
LFB	Butylate	25.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.3	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.04	LCS	P	0 - 30
LFB	Cyanazine	4.59	LCS	P	0 - 30
LFB	Demeton	7.54	LCS	P	0 - 30
LFB	Diazinon	2.32	LCS	P	0 - 30
LFB	Disulfoton	21.9	LCS	P	0 - 30
LFB	EPTC	23.3	LCS	P	0 - 30
LFB	Ethion	10.1	LCS	P	0 - 30
LFB	Ethoprop	25.0	LCS	P	0 - 30
LFB	Fenamiphos	9.22	LCS	P	0 - 30
LFB	Fipronil	5.90	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P343441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	3.90	LCS	P	0 - 30
LFB	Fipronil Sulfone	15.9	LCS	P	0 - 30
LFB	Fonofos	13.8	LCS	P	0 - 30
LFB	Hexazinone	10.6	LCS	P	0 - 30
LFB	Malathion	9.20	LCS	P	0 - 30
LFB	Metalaxyl	5.70	LCS	P	0 - 30
LFB	Metolachlor	4.62	LCS	P	0 - 30
LFB	Metribuzin	20.4	LCS	P	0 - 30
LFB	Mevinphos	11.5	LCS	P	0 - 30
LFB	Molinate	18.7	LCS	P	0 - 30
LFB	Norflurazon	19.7	LCS	P	0 - 30
LFB	Parathion Ethyl	0.892	LCS	P	0 - 30
LFB	Parathion Methyl	15.6	LCS	P	0 - 30
LFB	Pendimethalin	5.11	LCS	P	0 - 30
LFB	Phorate	15.0	LCS	P	0 - 30
LFB	Prometon	6.94	LCS	P	0 - 30
LFB	Prometryn	28.0	LCS	P	0 - 30
LFB	Simazine	5.20	LCS	P	0 - 30
LFB	Terbufos	16.2	LCS	P	0 - 30
LFB	Terbuthylazine	8.06	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P343276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983745	Chlordane	11.1	Spike	P	0 - 30
1983745	Toxaphene	11.7	Spike	P	0 - 30
LFB	Chlordane	15.7	LCS	P	0 - 30
LFB	Toxaphene	8.24	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P343184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983224	2,4-D	4.71	Spike	P	0 - 30
1983224	3-Hydroxycarbofuran	3.79	Spike	P	0 - 30
1983224	Acetaminophen	4.60	Spike	P	0 - 30
1983224	Aldicarb	22.1	Spike	P	0 - 30
1983224	Aldicarb Sulfone	4.57	Spike	P	0 - 30
1983224	Aldicarb Sulfoxide	2.56	Spike	P	0 - 30
1983224	Bentazon	5.22	Spike	P	0 - 30
1983224	Carbamazepine	0.542	Spike	P	0 - 30
1983224	Carbaryl	3.44	Spike	P	0 - 30
1983224	Carbofuran	4.48	Spike	P	0 - 30
1983224	Diuron	8.02	Spike	P	0 - 30
1983224	Fenuron	2.41	Spike	P	0 - 30
1983224	Fluridone	13.5	Spike	P	0 - 30
1983224	Hydrocodone	4.30	Spike	P	0 - 30
1983224	Imazapyr	15.4	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P343184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983224	Imidacloprid	1.39	Spike	P	0 - 30
1983224	Linuron	0.996	Spike	P	0 - 30
1983224	MCP	3.82	Spike	P	0 - 30
1983224	Methiocarb	1.34	Spike	P	0 - 30
1983224	Methomyl	12.2	Spike	P	0 - 30
1983224	Oxamyl	7.21	Spike	P	0 - 30
1983224	Primidone	6.33	Spike	P	0 - 30
1983224	Propoxur	9.06	Spike	P	0 - 30
1983224	Pyraclostrobin	0.414	Spike	P	0 - 30
1983224	Triclopyr	4.67	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P343272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983451	AMPA	2.07	Spike	P	0 - 30
1983451	Endothall	0.886	Spike	P	0 - 30
1983451	Glufosinate	0.325	Spike	P	0 - 30
1983451	Glyphosate	0.691	Spike	P	0 - 30
1983451	Sucralose	0.882	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P343321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984892	2,4-D	6.62	Spike	P	0 - 30
1984892	Acetaminophen	46.8	Spike	F	0 - 30
1984892	Bentazon	4.20	Spike	P	0 - 30
1984892	Carbamazepine	31.4	Spike	F	0 - 30
1984892	Diuron	31.0	Spike	F	0 - 30
1984892	Fenuron	41.6	Spike	F	0 - 30
1984892	Fluridone	26.9	Spike	P	0 - 30
1984892	Hydrocodone	21.6	Spike	P	0 - 30
1984892	Imidacloprid	39.9	Spike	F	0 - 30
1984892	Linuron	24.7	Spike	P	0 - 30
1984892	MCP	2.61	Spike	P	0 - 30
1984892	Primidone	48.0	Spike	F	0 - 30
1984892	Pyraclostrobin	58.9	Spike	F	0 - 30
1984892	Triclopyr	10.3	Spike	P	0 - 30

Reference Method: SM 2120 B

Batch ID: P343302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984305	Color (true)	2.99	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P343952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984236	Total Alkalinity	0.123	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P343629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984069	TDS	0.749	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P343956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984236	Fluoride	0.514	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P343560

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1984026	Organic Carbon	0.253	Spike	P	0 - 20

* 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: 1984322
Field Sample ID: G1WA0001

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	Acetaminophen-d4	148	P	30 - 160
EPA 8321B	Acetaminophen-d4	148	P	30 - 160
EPA 8321B	Carbamazepine-d10	148	P	30 - 160
EPA 8321B	Carbamazepine-d10	148	P	30 - 160
EPA 8321B	Diuron-d6	83.8	P	30 - 160
EPA 8321B	Diuron-d6	83.8	P	30 - 160
EPA 8321B	Primidone-d5	128	P	30 - 160
EPA 8321B	Primidone-d5	128	P	30 - 160
EPA 8321B	Sucralose-d6	64.5	P	40 - 160
EPA 8321B	Sucralose-d6	64.5	P	40 - 160

Lab Sample ID: 1984323
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 1984323
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	67.1	P	30 - 160

Lab Sample ID: 1984324
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	66.8	P	30 - 160

Lab Sample ID: 1984325
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	130	P	30 - 160
EPA 8321B	2,4-D-d3	130	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	106	P	30 - 160
EPA 8321B	Diuron-d6	64.1	P	30 - 160
EPA 8321B	Diuron-d6	64.1	P	30 - 160
EPA 8321B	Endothall-d6	88.6	P	40 - 160
EPA 8321B	Endothall-d6	88.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	75.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	75.9	P	40 - 160
EPA 8321B	Primidone-d5	90.0	P	30 - 160
EPA 8321B	Primidone-d5	90.0	P	30 - 160
EPA 8321B	Sucralose-d6	60.2	P	40 - 160
EPA 8321B	Sucralose-d6	60.2	P	40 - 160

Lab Sample ID: 1984326
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	127	P	30 - 160
EPA 8321B	Carbamazepine-d10	127	P	30 - 160
EPA 8321B	Diuron-d6	76.5	P	30 - 160
EPA 8321B	Diuron-d6	76.5	P	30 - 160
EPA 8321B	Endothall-d6	90.4	P	40 - 160
EPA 8321B	Endothall-d6	90.4	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	122	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	122	P	40 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	69.2	P	40 - 160
EPA 8321B	Sucralose-d6	69.2	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1984331
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	79.6	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	59.6	P	34 - 101
EPA 8276	Decachlorobiphenyl	78.8	P	31 - 108
EPA 8276	PCNB	99.0	P	62 - 142

Lab Sample ID: 1984332
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	71.8	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	50.8	P	34 - 101
EPA 8276	Decachlorobiphenyl	76.8	P	31 - 108
EPA 8276	PCNB	95.3	P	62 - 142

Lab Sample ID: 1984333
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	87.9	P	71 - 126
EPA 8270D	Terbufos-d10	96.8	P	59 - 149

Lab Sample ID: 1984334
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	111	P	71 - 126
EPA 8270D	Terbufos-d10	92.5	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A83198
Included Lab Sample IDs: 1984304, 1984305, 1984306

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A83212
Included Lab Sample IDs: 1984304, 1984305, 1984306

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105
Turbidity	98.5	99.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A83231
Included Lab Sample IDs: 1984310, 1984311, 1984312

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A83231

Included Lab Sample IDs: 1984310, 1984311, 1984312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.8	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A83252

Included Lab Sample IDs: 1984322, 1984325, 1984326

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	91.7	93.7	P/P	60 - 150
Endothall	98.4	97.2	P/P	60 - 150
Glufosinate	92.5	101	P/P	60 - 150
Glyphosate	128	124	P/P	60 - 150
Sucralose	114	115	P/P	60 - 130

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A83267

Included Lab Sample IDs: 1984304, 1984305, 1984306

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A83283

Included Lab Sample IDs: 1984325, 1984326

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	91.2	P/P	50 - 150
2,4-D	91.2	83.7	P/P	50 - 150
3-Hydroxycarbofuran	104	107	P/P	60 - 150
Acetaminophen	99.1	85.0	P/P	60 - 150
Aldicarb	93.1	82.5	P/P	60 - 150
Aldicarb Sulfone	103	96.5	P/P	50 - 150
Aldicarb Sulfoxide	105	111	P/P	50 - 150
Bentazon	83.8	89.2	P/P	50 - 150
Bentazon	89.2	84.9	P/P	50 - 150
Carbamazepine	102	94.0	P/P	60 - 150
Carbaryl	106	104	P/P	60 - 150
Carbofuran	102	110	P/P	50 - 150
Diuron	103	81.4	P/P	60 - 150
Fenuron	113	108	P/P	60 - 150
Fluridone	100	107	P/P	60 - 160
Hydrocodone	108	87.3	P/P	60 - 150
Imazapyr	72.9	65.9	P/P	50 - 150
Imidacloprid	113	106	P/P	60 - 150
Linuron	110	101	P/P	60 - 150
MCPP	100	98.7	P/P	50 - 150
MCPP	106	100	P/P	50 - 150
Methiocarb	95.1	106	P/P	50 - 150
Methomyl	97.1	117	P/P	50 - 150
Oxamyl	89.9	98.3	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A83283

Included Lab Sample IDs: 1984325, 1984326

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	111	76.8	P/P	60 - 150
Propoxur	103	110	P/P	50 - 150
Pyraclostrobin	101	105	P/P	60 - 150
Triclopyr	95.3	85.8	P/P	50 - 150
Triclopyr	98.1	95.3	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A83286

Included Lab Sample IDs: 1984307, 1984308, 1984309

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A83301

Included Lab Sample IDs: 1984335, 1984336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.2	100	P/P	95 - 105
Iron	100	99.1	P/P	95 - 105
Magnesium	101	101	P/P	95 - 105
Potassium	101	102	P/P	95 - 105
Zinc	101	101	P/P	95 - 105

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A83312

Included Lab Sample IDs: 1984307, 1984308, 1984309

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A83321

Included Lab Sample IDs: 1984307, 1984308, 1984309

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83326

Included Lab Sample IDs: 1984307, 1984308, 1984309

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A83336

Included Lab Sample IDs: 1984335, 1984336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	102	103	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A83344

Included Lab Sample IDs: 1984331, 1984332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.9		P	80 - 120
Alpha-BHC	98.6		P	80 - 120
Alpha-Chlordane	96.9		P	80 - 120
Beta-BHC	96.8		P	80 - 120
Carbophenothion	102		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cypermethrin	87.3		P	80 - 120
DDD-p,p'	98.3		P	80 - 120
DDE-p,p'	99.1		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	100		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	96.2		P	80 - 120
Endosulfan I	91.0		P	80 - 120
Endosulfan II	91.9		P	80 - 120
Endosulfan Sulfate	101		P	80 - 120
Endrin	97.1		P	80 - 120
Endrin Aldehyde	92.0		P	80 - 120
Endrin Ketone	97.6		P	80 - 120
Gamma-BHC	97.5		P	80 - 120
Gamma-Chlordane	96.4		P	80 - 120
Heptachlor	93.8		P	80 - 120
Heptachlor Epoxide	96.1		P	80 - 120
Methoxychlor	106		P	80 - 120
Mirex	96.1		P	80 - 120
Permethrin	93.0		P	80 - 120
Trifluralin	96.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83356

Included Lab Sample IDs: 1984335, 1984336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	98.5	P/P	90 - 110
Arsenic	98.5	99.2	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	98.4	97.0	P/P	90 - 110
Chromium	98.5	98.4	P/P	90 - 110
Copper	95.5	95.1	P/P	90 - 110
Copper	98.4	95.5	P/P	90 - 110
Lead	98.0	97.9	P/P	90 - 110
Lead	98.4	98.0	P/P	90 - 110
Nickel	95.3	95.6	P/P	90 - 110
Nickel	98.3	95.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83357

Included Lab Sample IDs: 1984307, 1984308, 1984309

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83357

Included Lab Sample IDs: 1984307, 1984308, 1984309

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.2	P/P	90 - 110
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A83411

Included Lab Sample IDs: 1984333, 1984334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.0		P	80 - 120
Alachlor	94.8		P	80 - 120
Ametryn	92.4		P	80 - 120
Atrazine	95.0		P	80 - 120
Atrazine Desethyl	86.6		P	80 - 120
Azinphos Methyl	82.9		P	80 - 120
Bromacil	89.6		P	80 - 120
Butylate	93.6		P	80 - 120
Chlorpyrifos Ethyl	86.3		P	80 - 120
Chlorpyrifos Methyl	95.3		P	80 - 120
Cyanazine	65.4*		F	80 - 120
Demeton	96.7		P	80 - 120
Diazinon	93.5		P	80 - 120
Disulfoton	93.5		P	80 - 120
EPTC	93.9		P	80 - 120
Ethion	89.7		P	80 - 120
Ethoprop	95.9		P	80 - 120
Fenamiphos	100		P	80 - 120
Fipronil	98.3		P	80 - 120
Fipronil Sulfide	90.8		P	80 - 120
Fipronil Sulfone	100		P	80 - 120
Fonofos	91.8		P	80 - 120
Hexazinone	94.6		P	80 - 120
Malathion	90.7		P	80 - 120
Metalaxyl	92.5		P	80 - 120
Metolachlor	92.2		P	80 - 120
Metribuzin	76.9*		F	80 - 120
Mevinphos	98.6		P	80 - 120
Molinate	93.0		P	80 - 120
Norflurazon	100		P	80 - 120
Parathion Ethyl	88.1		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	91.6		P	80 - 120
Phorate	82.2		P	80 - 120
Prometon	95.3		P	80 - 120
Prometryn	90.2		P	80 - 120
Simazine	89.6		P	80 - 120
Terbufos	94.2		P	80 - 120
Terbuthylazine	95.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83412

Included Lab Sample IDs: 1984335, 1984336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	98.1	97.2	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A83420

Included Lab Sample IDs: 1984304, 1984305, 1984306

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.1	P/P	90 - 110
Total Alkalinity	99.2	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A83420

Included Lab Sample IDs: 1984304, 1984305, 1984306

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	99.1	P/P	90 - 110
Fluoride	99.1	99.5	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A83448

Included Lab Sample IDs: 1984331, 1984332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.5		P	80 - 120
Toxaphene	81.5		P	80 - 120

Reference Method: EPA 8321B

Run ID: A83600

Included Lab Sample IDs: 1984322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	126	149	P/P	50 - 150
Acetaminophen	139	138	P/P	60 - 150
Bentazon	134	158	P/P	50 - 160
Carbamazepine	144	141	P/P	60 - 150
Diuron	131	133	P/P	60 - 150
Fenuron	137	142	P/P	60 - 150
Fluridone	102	110	P/P	60 - 160
Hydrocodone	124	121	P/P	60 - 150
Imazapyr	111	115	P/P	50 - 150
Imidacloprid	132	137	P/P	60 - 150
Linuron	116	117	P/P	60 - 150
MCPP	117	123	P/P	50 - 150
Primidone	122	128	P/P	60 - 150
Pyraclostrobin	91.0	83.0	P/P	60 - 150
Triclopyr	120	123	P/P	50 - 150

* 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	
							LCS	SMP MS
EPA 180.1 Rev. 2.0	Turbidity							1.40
	Turbidity							4.64
EPA 200.7 Rev. 4.4	Calcium	104		102	105	101		2.41
	Iron	104		104	106	103		2.92
	Magnesium	111		108	112	109		2.59
	Potassium	102		100	109	104		3.60
	Sodium	110		104	106	103		1.88
	Zinc	101		101	103	102		1.81
EPA 200.8 Rev. 5.4	Arsenic	100		99.9	99.4	99.4		0.0116
	Cadmium	101		101	101	100		0.984
	Chromium	96.4		97.4	97.3	96.2		1.21
	Copper	95.7		93.6	95.0	94.7		0.375
	Lead	96.5		96.8	96.3	96.8		0.443
	Nickel	98.2		98.0	98.1	97.0		1.14
	Silver	98.8		98.3	98.5	98.0		0.541
EPA 300.0 Rev. 2.1	Chloride	98.2		99.3	97.6			6.54
	Sulfate	96.8		94.3	97.1			7.71
EPA 350.1 Rev. 2.0	Ammonia-N	96.1		97.1	97.2			0.0975
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		101	96.2			3.55
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.0	98.5			0.509
EPA 365.1 Rev. 2.0	Total-P	106		103	104			0.883
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.0		97.5	96.9			0.590
EPA 8270D	Acetochlor	90.2	95.5	88.1	113	5.79		24.6
	Alachlor	91.1	103	114	91.3	11.8		21.7
	Aldrin	33.3	33.3	48.9	49.3	0.0278		0.984
	Alpha-BHC	81.3	89.0	92.5	88.9	9.11		4.04
	Alpha-Chlordane	79.6	80.9	78.5	81.8	1.55		4.14
	Ametryn	71.3	65.7	206	165	8.12		21.9
	Atrazine	90.2	98.9			9.17		14.6
	Atrazine Desethyl	92.5	83.0	83.4	76.7	10.7		8.29
	Azinphos Methyl	131	120	118	140	8.77		16.5
	Beta-BHC	89.8	97.5	109	106	8.31		3.28
	Bromacil	94.0	91.3	79.2	88.0	2.88		10.5
	Butylate	52.8	68.1	50.3	54.4	25.3		7.87
	Carbophenothion	98.5	110	112	120	10.9		6.96
	Chlorothalonil	68.3	68.9	80.4	56.8	0.889		34.3
	Chlorpyrifos Ethyl	84.9	98.9	77.1	75.9	15.3		1.55
	Chlorpyrifos Methyl	93.8	99.6	93.2	95.1	6.04		1.99
	Cyanazine	201	192	177	183	4.59		3.42
	Cypermethrin	78.8	81.2	79.7	78.4	3.10		1.53
	DDD-p,p'	91.2	93.5	91.6	91.5	2.50		0.169
	DDE-p,p'	81.9	84.2	83.4	85.7	2.74		2.70
	DDT-p,p'	87.9	89.8	92.8	86.0	2.09		7.59
	Delta-BHC	91.0	97.9	127	115	7.38		10.6
	Demeton	56.2	60.6	73.1	88.3	7.54		18.8
	Diazinon	103	101	121	104	2.32		15.1
	Dicofol	78.2	80.3	86.1	82.3	2.71		4.60
	Dieldrin	79.0	87.0	80.6	89.2	9.63		5.31
	Disulfoton	87.9	70.6	65.9	92.7	21.9		33.7
	Endosulfan I	82.6	80.9	80.6	84.3	2.16		4.54
	Endosulfan II	91.8	86.6	82.8	92.4	5.79		11.0
	Endosulfan Sulfate	93.0	83.5	90.7	88.2	10.8		2.78
	Endrin	79.8	90.6	89.5	82.2	12.8		8.53
	Endrin Aldehyde	73.3	71.2	68.2	48.9	2.84		32.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Endrin Ketone	87.2	85.0	98.7	95.4	2.55	3.41
	EPTC	58.4	46.2	45.6	43.2	23.3	5.45
	Ethion	92.7	103	93.7	92.5	10.1	1.25
	Ethoprop	92.3	71.8	92.3	88.9	25.0	3.80
	Fenamiphos	96.8	88.3	82.0	76.2	9.22	7.25
	Fipronil	84.9	90.1	74.6	78.1	5.90	4.58
	Fipronil Sulfide	70.3	73.1	50.4	57.0	3.90	12.2
	Fipronil Sulfone	67.2	78.8	67.0	50.1	15.9	28.8
	Fonofos	88.1	76.7	88.9	85.8	13.8	3.60
	Gamma-BHC	83.6	87.0	101	74.8	4.03	29.4
	Gamma-Chlordane	76.2	77.4	77.4	80.7	1.64	4.22
	Heptachlor	66.6	67.0	63.2	63.6	0.680	0.540
	Heptachlor Epoxide	77.7	79.0	80.6	83.8	1.64	3.89
	Hexazinone	88.8	98.7	73.7	88.6	10.6	18.4
	Malathion	95.9	87.4	75.3	79.9	9.20	5.86
	Metalaxyl	82.0	86.9	65.1	94.5	5.70	36.8
	Methoxychlor	89.0	92.4	82.2	88.0	3.72	6.83
	Metolachlor	98.9	94.5	72.7	95.3	4.62	25.5
	Metribuzin	120	97.6	173	199	20.4	14.2
	Mevinphos	73.7	65.7	81.9	66.8	11.5	20.2
	Mirex	75.7	77.2	74.8	74.8	1.92	0.0030
	Molinate	72.8	60.4	69.0	76.1	18.7	9.77
	Norflurazon	77.8	94.9	48.9	72.4	19.7	38.7
	Parathion Ethyl	85.8	85.0	75.5	88.1	0.892	15.4
	Parathion Methyl	99.4	116	97.7	120	15.6	20.6
	Pendimethalin	92.2	97.0	80.6	107	5.11	28.1
	Permethrin	81.8	82.4	83.2	83.9	0.738	0.828
	Phorate	87.8	75.5	88.0	69.2	15.0	24.0
	Prometon	88.7	95.0	89.9	102	6.94	12.2
	Prometryn	69.2	91.7	74.8	95.6	28.0	24.4
	Simazine	93.2	88.5	86.3	112	5.20	26.3
	Terbufos	95.3	81.0	91.9	88.4	16.2	3.87
	Terbuthylazine	86.7	94.0	89.0	108	8.06	19.1
	Trifluralin	79.7	82.0	81.2	79.8	2.82	1.71
EPA 8276	Chlordane	108	92.2	83.6	74.8	15.7	11.1
	Toxaphene	75.9	82.4	57.2	50.9	8.24	11.7
EPA 8321B	2,4-D	78.5		130	136		4.71
	2,4-D	83.4		91.3	98.0		6.62
	3-Hydroxycarbofuran	94.2		131	126		3.79
	Acetaminophen	91.0		122	128		4.60
	Acetaminophen	115		158	97.8		46.8
	Aldicarb	77.2		73.1	91.2		22.1
	Aldicarb Sulfone	95.3		141	147		4.57
	Aldicarb Sulfoxide	90.6		102	99.4		2.56
	AMPA	81.1		34.7	35.8		2.07
	Bentazon	68.4		41.1	43.3		5.22
	Bentazon	105		108	113		4.20
	Carbamazepine	80.4		103	103		0.542
	Carbamazepine	101		127	92.0		31.4
	Carbaryl	63.4		67.6	65.3		3.44
	Carbofuran	69.1		77.0	73.6		4.48
	Diuron	63.8		79.4	73.3		8.02
	Diuron	69.5		84.1	58.9		31.0
	Endothall	100		113	112		0.886

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Fenuron	110	111	108		2.41
	Fenuron	126	138	90.5		41.6
	Fluridone	61.9	61.8	70.7		13.5
	Fluridone	49.2	54.9	40.4		26.9
	Glufosinate	68.5	92.3	92.6		0.325
	Glyphosate	94.4	61.1	61.9		0.691
	Hydrocodone	103	147	141		4.30
	Hydrocodone	106	122	98.6		21.6
	Imazapyr	65.5	89.8	74.8		15.4
	Imazapyr	82.5				
	Imidacloprid	104	248	245		1.39
	Imidacloprid	108	276	179		39.9
	Linuron	72.0	89.4	88.5		0.996
	Linuron	66.9	82.9	64.6		24.7
	MCPP	64.0	96.0	99.7		3.82
	MCPP	68.9	83.6	85.8		2.61
	Methiocarb	65.9	78.0	79.1		1.34
	Methomyl	104	106	119		12.2
	Oxamyl	88.6	102	109		7.21
	Primidone	106	130	122		6.33
	Primidone	119	153	91.0		48.0
	Propoxur	68.2	76.0	69.4		9.06
	Pyraclostrobin	69.2	75.5	75.8		0.414
	Pyraclostrobin	54.9	69.8	38.1		58.9
	Sucralose	113	60.7	59.3		0.882
	Triclopyr	63.4	92.0	96.4		4.67
	Triclopyr	76.9	81.7	90.6		10.3
SM 2120 B	Color (true)				2.99	
SM 2320 B-97	Total Alkalinity	101			0.123	
SM 2540 C-97	TDS				0.749	
SM 4500 F-C-97	Fluoride	96.3	95.2	95.7		0.514
SM 5310 B-00	Organic Carbon	95.8	95.2	95.6		0.253

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1984304, 1984305, 1984306
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1984335, 1984336
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1984335, 1984336
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1984304, 1984305, 1984306
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1984304, 1984305, 1984306
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1984307, 1984308, 1984309
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1984307, 1984308, 1984309
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1984307, 1984308, 1984309
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1984307, 1984308, 1984309

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1984310, 1984311, 1984312
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1984331, 1984332
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1984333, 1984334
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1984331, 1984332
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1984323, 1984324
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1984322, 1984325, 1984326
SM 2120 B / E31780	True Color measured at 450 nm	1984304, 1984305, 1984306
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1984304, 1984305, 1984306
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1984304, 1984305, 1984306
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1984304, 1984305, 1984306
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1984304, 1984305, 1984306
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1984307, 1984308, 1984309

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/12/2018			04/12/2018 17:21	William L. Brown IV	1984304, 1984305, 1984306
EPA 200.7 Rev. 4.4	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/17/2018 14:49	Martin Acosta	1984335
	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/17/2018 14:55	Martin Acosta	1984336
	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/18/2018 13:38	Martin Acosta	1984335
	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/18/2018 13:41	Martin Acosta	1984336
EPA 200.8 Rev. 5.4	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/19/2018 16:17	Nadine Brooks	1984335
	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/19/2018 17:05	Nadine Brooks	1984336
	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/23/2018 14:45	Nadine Brooks	1984335
	04/12/2018	04/16/2018 17:45	Elliott D. Healy	04/23/2018 14:52	Nadine Brooks	1984336
EPA 300.0 Rev. 2.1	04/12/2018			04/16/2018 20:25	Lipi Saha	1984304
	04/12/2018			04/16/2018 20:37	Lipi Saha	1984305
	04/12/2018			04/16/2018 20:49	Lipi Saha	1984306
EPA 350.1 Rev. 2.0	04/12/2018			04/17/2018 12:28	Ping Hua	1984307
	04/12/2018			04/17/2018 12:30	Ping Hua	1984308
	04/12/2018			04/17/2018 12:31	Ping Hua	1984309
EPA 351.2 Rev. 2.0	04/12/2018	04/16/2018 15:30	Adrian Shelby	04/18/2018 10:36	Joseph Suarez	1984307
	04/12/2018	04/16/2018 15:30	Adrian Shelby	04/18/2018 10:37	Joseph Suarez	1984308
	04/12/2018	04/16/2018 15:30	Adrian Shelby	04/18/2018 10:42	Joseph Suarez	1984309
EPA 353.2 Rev. 2.0	04/12/2018			04/18/2018 12:41	Lauren Bottorf	1984307
	04/12/2018			04/18/2018 12:42	Lauren Bottorf	1984308
	04/12/2018			04/18/2018 12:44	Lauren Bottorf	1984309
EPA 365.1 Rev. 2.0	04/12/2018	04/17/2018 13:49	Sima Feizi	04/19/2018 14:39	Beverly Y. Sanders	1984307
	04/12/2018	04/17/2018 13:49	Sima Feizi	04/19/2018 14:47	Beverly Y. Sanders	1984308
	04/12/2018	04/17/2018 13:49	Sima Feizi	04/19/2018 14:48	Beverly Y. Sanders	1984309
EPA 365.1 Rev. 2.0 dissolved	04/12/2018			04/13/2018 14:26	Megan Treadwell	1984310
	04/12/2018			04/13/2018 14:27	Megan Treadwell	1984311
	04/12/2018			04/13/2018 14:32	Megan Treadwell	1984312
EPA 8270D	04/12/2018	04/13/2018 09:00	Fe-Val Siddell	04/18/2018 23:14	Dinesh Mishra	1984331
	04/12/2018	04/13/2018 09:00	Fe-Val Siddell	04/18/2018 23:45	Dinesh Mishra	1984332
	04/12/2018	04/16/2018 10:00	John Kaba	04/23/2018 16:10	Vandana T. Nagar	1984333
	04/12/2018	04/16/2018 10:00	John Kaba	04/23/2018 16:33	Vandana T. Nagar	1984334
EPA 8276	04/12/2018	04/13/2018 09:00	Fe-Val Siddell	04/24/2018 09:02	Vandana T. Nagar	1984331
	04/12/2018	04/13/2018 09:00	Fe-Val Siddell	04/24/2018 10:00	Vandana T. Nagar	1984332
EPA 8321B	04/12/2018	04/13/2018 10:00	Hoor Shaik	04/14/2018 16:23	Julie Michelle Frank	1984325
	04/12/2018	04/13/2018 10:00	Hoor Shaik	04/14/2018 17:32	Julie Michelle Frank	1984326
	04/12/2018	04/13/2018 10:00	Hoor Shaik	04/14/2018 21:35	Julie Michelle Frank	1984323
	04/12/2018	04/13/2018 10:00	Hoor Shaik	04/14/2018 22:09	Julie Michelle Frank	1984324
	04/12/2018	04/13/2018 10:00	Hoor Shaik	04/15/2018 07:57	Julie Michelle Frank	1984325
	04/12/2018	04/13/2018 10:00	Hoor Shaik	04/15/2018 08:32	Julie Michelle Frank	1984326
	04/12/2018	04/13/2018 12:00	Hoor Shaik	04/14/2018 01:07	S. M. Reddy	1984322

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/12/2018	04/13/2018 12:00	Hoor Shaik	04/14/2018 01:23	S. M. Reddy	1984325
	04/12/2018	04/13/2018 12:00	Hoor Shaik	04/14/2018 01:39	S. M. Reddy	1984326
	04/12/2018	04/19/2018 08:30	Hoor Shaik	04/21/2018 02:31	Julie Michelle Frank	1984322
	04/12/2018	04/19/2018 08:30	Hoor Shaik	04/21/2018 17:31	Julie Michelle Frank	1984322
SM 2120 B	04/12/2018			04/12/2018 15:56	Tanya Welborn	1984304
	04/12/2018			04/12/2018 15:58	Tanya Welborn	1984305
	04/12/2018			04/12/2018 15:59	Tanya Welborn	1984306
SM 2320 B-97	04/12/2018			04/24/2018 06:43	Dale L. Simmons	1984304
	04/12/2018			04/24/2018 07:18	Dale L. Simmons	1984305
	04/12/2018			04/24/2018 07:29	Dale L. Simmons	1984306
SM 2540 C-97	04/12/2018			04/13/2018 13:20	DeAsia Armster	1984304, 1984305, 1984306
SM 2540 D-97	04/12/2018			04/13/2018 13:20	DeAsia Armster	1984304, 1984305, 1984306
SM 4500 F-C-97	04/12/2018			04/24/2018 06:43	Dale L. Simmons	1984304
	04/12/2018			04/24/2018 07:18	Dale L. Simmons	1984305
	04/12/2018			04/24/2018 07:29	Dale L. Simmons	1984306
SM 5310 B-00	04/12/2018			04/16/2018 18:27	Megan Treadwell	1984307
	04/12/2018			04/16/2018 18:42	Megan Treadwell	1984308
	04/12/2018			04/16/2018 18:57	Megan Treadwell	1984309