

Chemical Analysis Report

CEN-DIST-2018-04-24-01

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

Event Description: **Greenwood / Ann / Searcy**

Request ID: **RQ-2018-04-23-53**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

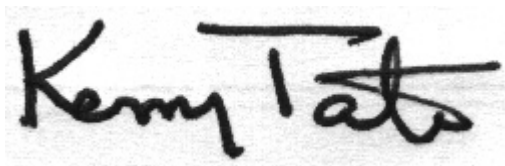
FL Dept. of Environmental Protection
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Orlando, FL 32803-3767
Attn: Michael Linger

For additional information please contact

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 01-JUN-2018 13:48

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: GREENWOOD LAKE WEST LOBE @ CENTER Collection Date/Time: 04/23/2018 10:45

Field ID: G2CE0112

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986634	EPA 180.1 Rev. 2.0	Turbidity	4.1	A	NTU	P344000	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P344132	
		Sulfate	5.4		mg SO4/L	P344134	
	SM 2120 B	Color (true)	39		PCU	P343963	
	SM 2320 B-97	Total Alkalinity	46		mg CaCO3/L	P344453	RPD
	SM 2540 C-97	TDS	108		mg/L	P344544	
	SM 2540 D-97	TSS	4	I	mg/L	P344674	
	SM 4500 F-C-97	Fluoride	0.049	I	mg F/L	P344457	
1986637	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P344184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P343991	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P344119	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P344042	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P344290	
1986640	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343969	
1986675	EPA 200.7 Rev. 4.4	Calcium	17.8		mg/L	P344067	
		Iron	87	I	ug/L	P344067	
		Magnesium	2.62		mg/L	P344067	
		Potassium	2.9		mg/L	P344067	
		Sodium	16.6		mg/L	P344067	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P344067	
		Arsenic	0.85		ug/L	P344067	
		Cadmium	0.024	I	ug/L	P344067	
		Chromium	0.40	U	ug/L	P344067	
		Copper	1.70		ug/L	P344067	
		Lead	0.087	I	ug/L	P344067	
		Nickel	0.22	I	ug/L	P344067	
		Silver	0.010	U	ug/L	P344067	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

**Sample Location: GREENWOOD LAKE WEST LOBE @ 250M SW Collection Date/Time: 04/23/2018 10:56
OF CENTER**

Field ID: G2CE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986635	EPA 180.1 Rev. 2.0	Turbidity	6.1		NTU	P344000	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P344132	
		Sulfate	5.4		mg SO4/L	P344134	
	SM 2120 B	Color (true)	38		PCU	P343963	
	SM 2320 B-97	Total Alkalinity	46		mg CaCO3/L	P344453	RPD
	SM 2540 C-97	TDS	119		mg/L	P344544	
	SM 2540 D-97	TSS	8	I	mg/L	P344674	

Field ID: G2CE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986635	SM 4500 F-C-97	Fluoride	0.050	I	mg F/L	P344457	
1986638	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P344185	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P343991	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P344120	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P344042	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P344290	
1986641	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343970	
1986676	EPA 200.7 Rev. 4.4	Calcium	17.7		mg/L	P344067	
		Iron	110	I	ug/L	P344067	
		Magnesium	2.59		mg/L	P344067	
		Potassium	2.9		mg/L	P344067	
		Sodium	16.3		mg/L	P344067	
		Zinc	5.0	U	ug/L	P344067	
	EPA 200.8 Rev. 5.4	Arsenic	0.87		ug/L	P344067	
		Cadmium	0.020	U	ug/L	P344067	
		Chromium	0.43	I	ug/L	P344067	
		Copper	2.36		ug/L	P344067	
		Lead	0.15	I	ug/L	P344067	
		Nickel	0.24	I	ug/L	P344067	
		Silver	0.010	U	ug/L	P344067	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: GREENWOOD LAKE WEST LOBE @ 250M SW OF CENTER **Collection Date/Time: 04/23/2018 10:56**

Field ID: G2CE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986667	EPA 8321B	Aldicarb	0.020	U	ug/L	P343931	
		Aldicarb Sulfone	0.0020	U	ug/L	P343931	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P343931	
		Carbaryl	0.0020	U	ug/L	P343931	
		Carbofuran	0.0020	U	ug/L	P343931	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P343931	
		Methiocarb	0.0020	U	ug/L	P343931	
		Methomyl	0.0020	U	ug/L	P343931	
		Oxamyl	0.0020	U	ug/L	P343931	
		Propoxur	0.0020	U	ug/L	P343931	
1986668		2,4-D	0.044		ug/L	P343931	
		Bentazon	0.046		ug/L	P343931	
		MCP	0.0020	U	ug/L	P343931	
		Triclopyr**	0.0040	U	ug/L	P343931	
		Imidacloprid	0.011		ug/L	P343931	
		Diuron	0.0020	U	ug/L	P343931	

Field ID: G2CE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986668	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P343931	
		Primidone**	0.0087	I	ug/L	P343931	
		Linuron	0.0040	U	ug/L	P343931	
		Acetaminophen**	0.0080	U	ug/L	P343931	
		Fenuron	0.026	I	ug/L	P343931	
		Imazapyr**	0.044		ug/L	P343931	
		Carbamazepine**	0.0035		ug/L	P343931	
		Fluridone**	0.0016	I	ug/L	P343931	
		Hydrocodone**	8.0E-04	U	ug/L	P343931	
		Sucralose**	1.9		ug/L	P343719	
		Glyphosate**	0.10	U	ug/L	P343719	MS
		AMPA**	0.10	U	ug/L	P343719	MS
		Endothall**	0.10	U	ug/L	P343719	
		Glufosinate**	0.10	U	ug/L	P343719	MS
1986669	EPA 8270D	Aldrin	4.6	UJ	ng/L	P344097	RPD
		Alpha-BHC	2.3	U	ng/L	P344097	
		Beta-BHC	4.6	U	ng/L	P344097	
		Delta-BHC	4.6	UJ	ng/L	P344097	MS
		Gamma-BHC	4.6	U	ng/L	P344097	
		Carbophenothion	4.6	U	ng/L	P344097	
		Chlorothalonil	2.3	U	ng/L	P344097	
		Cypermethrin	23	U	ng/L	P344097	
		DDD-p,p'	3.5	U	ng/L	P344097	
		DDE-p,p'	3.5	U	ng/L	P344097	
		DDT-p,p'	3.5	U	ng/L	P344097	
		Dieldrin	4.6	U	ng/L	P344097	
		Endosulfan I	4.6	U	ng/L	P344097	
		Endosulfan II	4.6	U	ng/L	P344097	
		Endosulfan Sulfate	2.3	U	ng/L	P344097	
		Endrin	2.3	U	ng/L	P344097	
		Endrin Aldehyde	2.3	U	ng/L	P344097	
		Heptachlor	1.7	U	ng/L	P344097	
		Heptachlor Epoxide	2.3	U	ng/L	P344097	
		Methoxychlor	4.6	U	ng/L	P344097	
		Mirex	2.3	U	ng/L	P344097	
		Permethrin	12	U	ng/L	P344097	
		Trifluralin	1.2	U	ng/L	P344097	
		Alpha-Chlordane	1.2	U	ng/L	P344097	
		Gamma-Chlordane	1.2	U	ng/L	P344097	
		Endrin Ketone	2.3	UJ	ng/L	P344097	MS
		Dicofol	35	U	ng/L	P344097	
	EPA 8276	Chlordane**	2.9	U	ng/L	P344097	
		Toxaphene**	35	U	ng/L	P344097	
1986670	EPA 8270D	Alachlor	0.24	U	ng/L	P344213	
		Ametryn	0.32	UJ	ng/L	P344213	RPD

Field ID: G2CE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986670	EPA 8270D	Atrazine	100		ng/L	P344213	
		Atrazine Desethyl	8.0		ng/L	P344213	
		Azinphos Methyl	2.2	U	ng/L	P344213	
		Bromacil	0.49	U	ng/L	P344213	
		Butylate	0.39	UJ	ng/L	P344213	RPD
		Chlorpyrifos Ethyl	0.24	U	ng/L	P344213	
		Chlorpyrifos Methyl	0.097	U	ng/L	P344213	
		Demeton	1.9	U	ng/L	P344213	
		Diazinon	0.12	U	ng/L	P344213	
		Disulfoton	0.49	U	ng/L	P344213	
		EPTC	1.2	UJ	ng/L	P344213	RPD
		Ethion	0.15	U	ng/L	P344213	
		Ethoprop	0.097	U	ng/L	P344213	
		Fenamiphos	0.24	U	ng/L	P344213	
		Fipronil	0.26	IJ	ng/L	P344213	RPD
		Fipronil Sulfide	1.1	J	ng/L	P344213	MS, RPD
		Fipronil Sulfone	3.1	J	ng/L	P344213	RPD
		Hexazinone	0.49	U	ng/L	P344213	
		Malathion	0.34	U	ng/L	P344213	
		Metribuzin	0.19	UJ	ng/L	P344213	RPD
		Mevinphos	0.49	U	ng/L	P344213	
		Molinate	0.29	U	ng/L	P344213	
		Norflurazon	0.49	UJ	ng/L	P344213	MS, RPD
		Pendimethalin	0.97	U	ng/L	P344213	
		Phorate	0.24	UJ	ng/L	P344213	LCS, RPD
		Prometon	0.87	U	ng/L	P344213	
		Prometryn	0.19	U	ng/L	P344213	
		Simazine	0.49	UJ	ng/L	P344213	MS
		Terbufos	0.097	U	ng/L	P344213	
		Terbutylazine	0.41	U	ng/L	P344213	
		Fonofos	0.19	U	ng/L	P344213	
		Metalaxyl	0.24	U	ng/L	P344213	
		Metolachlor	0.39	I	ng/L	P344213	
		Acetochlor	0.24	U	ng/L	P344213	
		Cyanazine	0.49	UJ	ng/L	P344213	RPD
		Parathion Ethyl	0.24	U	ng/L	P344213	
		Parathion Methyl	0.24	U	ng/L	P344213	

Ref. Method and Comment:

EPA 8321B: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: Precision for glyphosate, AMPA and glufosinate is not available due to no recoveries in the duplicate matrix spikes.

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

EPA 8270D: Matrix spike accuracy for Atrazine and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

Refer to the narrative for an explanation of QC Codes.

Sample Location: GREENWOOD LAKE WEST LOBE @ 110M N OF REFLECTION PARK BOAT RAMP **Collection Date/Time: 04/23/2018 11:15**

Field ID: G2CE0135

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986636	EPA 180.1 Rev. 2.0	Turbidity	5.4		NTU	P344000	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P344132	
		Sulfate	5.4		mg SO4/L	P344134	
	SM 2120 B	Color (true)	39	A	PCU	P343964	
	SM 2320 B-97	Total Alkalinity	46		mg CaCO3/L	P344453	RPD
	SM 2540 C-97	TDS	105		mg/L	P344544	
	SM 2540 D-97	TSS	7	I	mg/L	P344674	
	SM 4500 F-C-97	Fluoride	0.050	I	mg F/L	P344457	
1986639	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P344185	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P343991	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P344120	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P344042	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P344290	
1986642	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343970	
1986677	EPA 200.7 Rev. 4.4	Calcium	17.5		mg/L	P344067	
		Iron	110	I	ug/L	P344067	
		Magnesium	2.56		mg/L	P344067	
		Potassium	2.9		mg/L	P344067	
		Sodium	16.4		mg/L	P344067	
		Zinc	5.0	U	ug/L	P344067	
	EPA 200.8 Rev. 5.4	Arsenic	0.87		ug/L	P344067	
		Cadmium	0.020	U	ug/L	P344067	
		Chromium	0.40	U	ug/L	P344067	
		Copper	1.81		ug/L	P344067	
		Lead	0.12	I	ug/L	P344067	
		Nickel	0.23	I	ug/L	P344067	
		Silver	0.010	U	ug/L	P344067	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE SEARCY @ CENTER

Collection Date/Time: 04/23/2018 12:35

Field ID: G2CE0137

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986643	EPA 180.1 Rev. 2.0	Turbidity	7.6		NTU	P344000	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P344132	
		Sulfate	4.7		mg SO4/L	P344134	
	SM 2120 B	Color (true)	48		PCU	P343964	
	SM 2320 B-97	Total Alkalinity	29		mg CaCO3/L	P344453	RPD
	SM 2540 C-97	TDS	111		mg/L	P344544	
	SM 2540 D-97	TSS	6	I	mg/L	P344674	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P344457	
1986645	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P344185	

Field ID: G2CE0137

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986645	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P343991	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P344120	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P344042	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P344290	
1986647	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343970	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LAKE ANN @ CENTER

Collection Date/Time: 04/23/2018 13:35

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986644	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P344000	
	EPA 300.0 Rev. 2.1	Chloride	21	A	mg Cl/L	P344280	
		Sulfate	18	A	mg SO4/L	P344284	
	SM 2120 B	Color (true)	32		PCU	P343964	
	SM 2320 B-97	Total Alkalinity	27	AJ	mg CaCO3/L	P344453	RPD
	SM 2540 C-97	TDS	101		mg/L	P344545	
	SM 2540 D-97	TSS	10	I	mg/L	P344675	
	SM 4500 F-C-97	Fluoride	0.045	I	mg F/L	P344457	
1986646	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P344185	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P343991	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P344120	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P344043	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P344290	
1986648	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P343970	

Ref. Method and Comment:

SM 2320 B-97: Refer to the narrative for an explanation of QC Codes.

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

SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P344000

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P344067

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P344067

Component	Result	Code	Units
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344067

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: P344132

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344134

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344280

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344284

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344184

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344185

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343991

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344119

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344120

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344042

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344043

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343969

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343970

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

Reference Method: EPA 8270D
Batch ID: P344097

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: P344097

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: P344213

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: P344213

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: P344097

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

Reference Method: EPA 8321B

Batch ID: P343719

Component	Result	Code	Units
AMPA	0.10	U	ug/L
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: P343931

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P343931

Component	Result	Code	Units
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: SM 2120 B
Batch ID: P343963

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P343964

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P344453

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

Reference Method: SM 2540 C-97
Batch ID: P344544

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P344545

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P344674

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P344675

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P344457

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P344290

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: P344067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	107		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	99.1		P	85 - 115
Sodium	98.7		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.4		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	97.1		P	85 - 115
Copper	94.8		P	85 - 115
Lead	96.1		P	85 - 115
Nickel	97.8		P	85 - 115
Silver	98.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344132

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344280

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344284

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344184

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344185

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343991

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344119

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	99.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344120

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344042

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344043

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343969

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343970

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P344097

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	27.1	43.2	P/P	24 - 89.0
Alpha-BHC	82.1	81.9	P/P	58 - 117
Alpha-Chlordane	79.7	84.8	P/P	56 - 115
Beta-BHC	93.8	100	P/P	55 - 137
Carbophenothion	78.0	81.8	P/P	37 - 145
Chlorothalonil	95.6	86.7	P/P	26 - 163
Cypermethrin	71.0	73.6	P/P	42 - 156
DDD-p,p'	91.5	96.0	P/P	59 - 129
DDE-p,p'	78.2	85.4	P/P	52 - 117
DDT-p,p'	88.3	89.7	P/P	48 - 128
Delta-BHC	101	105	P/P	59 - 158
Dicofol	81.2	81.7	P/P	19 - 124
Dieldrin	88.0	92.1	P/P	57 - 126
Endosulfan I	93.6	94.8	P/P	59 - 133
Endosulfan II	108	103	P/P	58 - 148
Endosulfan Sulfate	93.9	91.2	P/P	56 - 135
Endrin	83.4	97.9	P/P	50 - 140
Endrin Aldehyde	87.9	87.3	P/P	47 - 141
Endrin Ketone	90.5	87.8	P/P	63 - 123
Gamma-BHC	80.6	82.9	P/P	59 - 132
Gamma-Chlordane	76.6	81.1	P/P	55 - 112
Heptachlor	67.2	70.0	P/P	45 - 102
Heptachlor Epoxide	87.2	86.4	P/P	61 - 116
Methoxychlor	95.5	93.4	P/P	60 - 133
Mirex	63.2	69.2	P/P	40 - 98.0
Permethrin	70.1	77.4	P/P	45 - 131
Trifluralin	81.0	81.8	P/P	38 - 179

Reference Method: EPA 8270D

Batch ID: P344213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	82.2	88.1	P/P	74 - 119
Alachlor	79.5	84.6	P/P	75 - 118
Ametryn	81.4	72.8	P/P	59 - 137
Atrazine	92.9	97.4	P/P	73 - 120
Atrazine Desethyl	84.7	80.0	P/P	19 - 129
Azinphos Methyl	121	131	P/P	65 - 181
Bromacil	69.5	68.5	P/P	43 - 123
Butylate	41.1	40.8	P/P	28 - 85.0
Chlorpyrifos Ethyl	86.5	87.8	P/P	55 - 112
Chlorpyrifos Methyl	99.8	96.1	P/P	35 - 124
Cyanazine	137	124	P/P	26 - 262
Demeton	54.9	51.9	P/P	43 - 122
Diazinon	103	101	P/P	72 - 120
Disulfoton	74.1	65.8	P/P	45 - 137
EPTC	35.3	41.4	P/P	28 - 95.0
Ethion	81.7	79.9	P/P	63 - 127
Ethoprop	94.3	83.5	P/P	63 - 109
Fenamiphos	68.1	67.6	P/P	66 - 136
Fipronil	68.3	69.8	P/P	63 - 126
Fipronil Sulfide	68.5	59.2	P/P	59 - 123

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P344213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Sulfone	65.2	60.5	P/P	56 - 122
Fonofos	108	99.6	P/P	64 - 114
Hexazinone	98.3	97.4	P/P	49 - 144
Malathion	92.4	76.0	P/P	68 - 131
Metalaxyl	76.5	77.5	P/P	57 - 126
Metolachlor	79.2	80.6	P/P	75 - 118
Metribuzin	154	139	P/P	46 - 169
Mevinphos	86.0	73.1	P/P	34 - 126
Molinate	51.2	49.9	P/P	37 - 101
Norflurazon	71.1	69.3	P/P	63 - 127
Parathion Ethyl	84.2	85.4	P/P	78 - 109
Parathion Methyl	102	106	P/P	74 - 123
Pendimethalin	92.2	97.4	P/P	51 - 130
Phorate	73.1	52.7	P/F	53 - 116
Prometon	70.0	76.0	P/P	66 - 124
Prometryn	74.6	73.8	P/P	66 - 124
Simazine	104	109	P/P	62 - 134
Terbufos	91.7	78.6	P/P	59 - 115
Terbutylazine	87.9	87.4	P/P	76 - 113

Reference Method: EPA 8276

Batch ID: P344097

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.9	92.2	P/P	47 - 125
Toxaphene	64.3	80.3	P/P	46 - 147

Reference Method: EPA 8321B

Batch ID: P343719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	85.0		P	40 - 140
Endothall	84.3		P	40 - 140
Glufosinate	88.3		P	40 - 140
Glyphosate	105		P	40 - 140
Sucralose	88.0		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P343931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	88.8		P	40 - 150
3-Hydroxycarbofuran	93.8		P	40 - 150
Acetaminophen	93.1		P	30 - 150
Aldicarb	104		P	30 - 150
Aldicarb Sulfone	97.7		P	40 - 150
Aldicarb Sulfoxide	105		P	40 - 150
Bentazon	117		P	30 - 150
Carbamazepine	96.8		P	40 - 150
Carbaryl	83.8		P	40 - 150
Carbofuran	85.6		P	40 - 150
Diuron	90.4		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P343931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	110		P	40 - 150
Fluridone	87.8		P	40 - 150
Hydrocodone	115		P	40 - 150
Imazapyr	104		P	40 - 150
Imidacloprid	104		P	40 - 160
Linuron	90.8		P	40 - 150
MCPP	103		P	40 - 150
Methiocarb	87.6		P	40 - 150
Methomyl	98.1		P	40 - 150
Oxamyl	87.3		P	40 - 150
Primidone	97.8		P	40 - 150
Propoxur	86.6		P	40 - 150
Pyraclostrobin	83.1		P	40 - 150
Triclopyr	106		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P344453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P344457

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P344290

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P344067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986963	Calcium	98.6		P	80 - 120
1986963	Iron	102	103	P/P	80 - 120
1986963	Magnesium	97.5		P	80 - 120
1986963	Potassium	96.4		P	80 - 120
1986963	Sodium	96.8		P	80 - 120
1986963	Zinc	95.7	96.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986963	Arsenic	102	101	P/P	80 - 120
1986963	Cadmium	101	100	P/P	80 - 120
1986963	Chromium	95.7	95.0	P/P	80 - 120
1986963	Copper	94.5	94.4	P/P	80 - 120
1986963	Lead	99.0	97.6	P/P	80 - 120
1986963	Nickel	97.2	96.3	P/P	80 - 120
1986963	Silver	99.0	98.4	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986502	Chloride	95.1		P	90 - 110
1986606	Chloride	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986606	Sulfate	90.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986644	Chloride	97.9		P	90 - 110
1986809	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986644	Sulfate	94.3		P	90 - 110
1986809	Sulfate	93.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986579	Ammonia-N	100	98.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344185

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986638	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986646	Kjeldahl Nitrogen	103	98.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P344119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986579	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P344120

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986638	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P344042

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986607	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P344043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986735	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P343969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986584	O-Phosphate-P	98.9	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P343970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986641	O-Phosphate-P	97.1	97.9	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P344097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986669	Aldrin	58.8	56.9	P/P	26 - 96.0
1986669	Alpha-BHC	84.0	82.2	P/P	51 - 123
1986669	Alpha-Chlordane	68.2	63.9	P/P	45 - 120
1986669	Beta-BHC	94.0	81.3	P/P	43 - 146
1986669	Carbophenothion	102	101	P/P	26 - 179
1986669	Chlorothalonil	145	128	P/P	10 - 215
1986669	Cypermethrin	109	109	P/P	35 - 169
1986669	DDD-p,p'	76.6	74.4	P/P	49 - 131
1986669	DDE-p,p'	62.8	62.3	P/P	39 - 127
1986669	DDT-p,p'	86.2	89.4	P/P	49 - 120
1986669	Delta-BHC	269	253	F/F	49 - 187
1986669	Dicofol	77.7	65.1	P/P	10 - 129
1986669	Dieldrin	66.8	60.4	P/P	46 - 132
1986669	Endosulfan I	69.3	63.0	P/P	57 - 130
1986669	Endosulfan II	106	102	P/P	52 - 148
1986669	Endosulfan Sulfate	100	90.8	P/P	55 - 129

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P344097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986669	Endrin	102	76.6	P/P	45 - 133
1986669	Endrin Aldehyde	61.7	54.3	P/P	26 - 140
1986669	Endrin Ketone	129	113	F/P	60 - 125
1986669	Gamma-BHC	97.1	90.3	P/P	50 - 145
1986669	Gamma-Chlordane	68.4	63.9	P/P	44 - 118
1986669	Heptachlor	64.8	61.7	P/P	35 - 106
1986669	Heptachlor Epoxide	81.2	74.8	P/P	52 - 123
1986669	Methoxychlor	85.7	82.8	P/P	54 - 132
1986669	Mirex	58.4	54.3	P/P	36 - 107
1986669	Permethrin	83.0	85.2	P/P	47 - 135
1986669	Trifluralin	69.7	66.9	P/P	32 - 228

Reference Method: EPA 8270D
 Batch ID: P344213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986670	Acetochlor	87.0	79.1	P/P	67 - 125
1986670	Alachlor	88.0	80.0	P/P	69 - 123
1986670	Ametryn	135	76.5	P/P	52 - 151
1986670	Atrazine Desethyl	64.0	36.8	P/P	10 - 129
1986670	Azinphos Methyl	135	112	P/P	48 - 200
1986670	Bromacil	79.3	64.0	P/P	46 - 130
1986670	Butylate	44.6	32.2	P/P	10 - 85.0
1986670	Chlorpyrifos Ethyl	77.4	76.4	P/P	54 - 115
1986670	Chlorpyrifos Methyl	96.8	93.4	P/P	44 - 117
1986670	Cyanazine	115	80.3	P/P	10 - 262
1986670	Demeton	71.2	70.2	P/P	24 - 145
1986670	Diazinon	110	98.8	P/P	66 - 129
1986670	Disulfoton	107	92.1	P/P	45 - 139
1986670	EPTC	43.4	31.0	P/P	10 - 86.0
1986670	Ethion	83.2	81.7	P/P	59 - 133
1986670	Ethoprop	110	97.1	P/P	54 - 116
1986670	Fenamiphos	69.8	59.7	P/P	55 - 140
1986670	Fipronil	65.6	41.5	P/P	37 - 142
1986670	Fipronil Sulfide	49.4	16.9	P/F	37 - 130
1986670	Fonofos	104	114	P/P	55 - 118
1986670	Hexazinone	99.5	89.9	P/P	62 - 140
1986670	Malathion	97.6	87.8	P/P	64 - 132
1986670	Metalaxyl	84.5	74.5	P/P	55 - 129
1986670	Metolachlor	85.0	76.5	P/P	56 - 137
1986670	Metribuzin	168	74.3	P/P	16 - 218
1986670	Mevinphos	103	82.5	P/P	34 - 129
1986670	Molinate	57.9	45.1	P/P	16 - 99.0
1986670	Norflurazon	56.7	33.1	P/F	43 - 135
1986670	Parathion Ethyl	86.9	81.0	P/P	71 - 112
1986670	Parathion Methyl	98.1	92.9	P/P	65 - 127
1986670	Pendimethalin	91.8	98.5	P/P	35 - 159
1986670	Phorate	92.7	84.2	P/P	41 - 129
1986670	Prometon	83.0	74.2	P/P	56 - 140
1986670	Prometryn	76.4	69.5	P/P	65 - 130
1986670	Simazine	270	232	F/F	54 - 148
1986670	Terbufos	99.0	98.2	P/P	53 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P344213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986670	Terbutylazine	86.8	83.5	P/P	73 - 114

Reference Method: EPA 8276
 Batch ID: P344097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986957	Chlordane	83.8	87.1	P/P	41 - 134
1986957	Toxaphene	71.5	70.1	P/P	39 - 158

Reference Method: EPA 8321B
 Batch ID: P343719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986060	AMPA	0.0	0.0	F/F	40 - 140
1986060	Endothall	70.2	72.9	P/P	40 - 140
1986060	Glufosinate	0.0	0.0	F/F	40 - 140
1986060	Glyphosate	0.0	0.0	F/F	40 - 140
1986060	Sucralose	46.4	49.1	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P343931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986950	2,4-D	80.1	76.0	P/P	40 - 150
1986950	3-Hydroxycarbofuran	122	103	P/P	40 - 150
1986950	Acetaminophen	128	117	P/P	30 - 150
1986950	Aldicarb	115	90.1	P/P	30 - 150
1986950	Aldicarb Sulfone	134	122	P/P	40 - 150
1986950	Aldicarb Sulfoxide	113	97.1	P/P	40 - 150
1986950	Bentazon	75.6	68.5	P/P	30 - 150
1986950	Carbamazepine	116	108	P/P	40 - 150
1986950	Carbaryl	81.4	68.2	P/P	40 - 150
1986950	Carbofuran	85.2	78.1	P/P	40 - 150
1986950	Diuron	96.5	88.5	P/P	40 - 150
1986950	Fenuron	121	108	P/P	40 - 150
1986950	Fluridone	88.8	80.4	P/P	40 - 150
1986950	Hydrocodone	146	135	P/P	40 - 150
1986950	Imazapyr	119	87.0	P/P	40 - 150
1986950	Linuron	100	89.9	P/P	40 - 150
1986950	MCPP	92.7	84.2	P/P	40 - 150
1986950	Methiocarb	99.0	84.3	P/P	40 - 150
1986950	Methomyl	95.7	88.8	P/P	40 - 150
1986950	Oxamyl	95.5	88.1	P/P	40 - 150
1986950	Primidone	131	110	P/P	40 - 150
1986950	Propoxur	85.9	73.8	P/P	40 - 150
1986950	Pyraclostrobin	103	97.6	P/P	40 - 150
1986950	Triclopyr	96.1	88.3	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P344457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P344457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986644	Fluoride	94.2	94.7	P/P	91 - 105

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P344000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986634	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P344067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986963	Calcium	0.353	Spike	P	0 - 20
1986963	Iron	1.07	Spike	P	0 - 20
1986963	Magnesium	1.37	Spike	P	0 - 20
1986963	Potassium	0.551	Spike	P	0 - 20
1986963	Sodium	0.244	Spike	P	0 - 20
1986963	Zinc	0.907	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P344067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986963	Arsenic	0.452	Spike	P	0 - 20
1986963	Cadmium	0.908	Spike	P	0 - 20
1986963	Chromium	0.706	Spike	P	0 - 20
1986963	Copper	0.122	Spike	P	0 - 20
1986963	Lead	1.42	Spike	P	0 - 20
1986963	Nickel	0.923	Spike	P	0 - 20
1986963	Silver	0.554	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P344132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986502	Chloride	0.464	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P344134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986502	Sulfate	0.610	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986644	Chloride	0.740	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P344284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986644	Sulfate	0.991	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986579	Ammonia-N	1.60	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344185

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986638	Ammonia-N	1.75	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P343991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986646	Kjeldahl Nitrogen	2.42	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986579	NO2NO3-N	0.489	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986638	NO2NO3-N	0.494	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986607	Total-P	0.968	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P344043

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986735	Total-P	0.654	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P343969

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986584	O-Phosphate-P	1.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P343970

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986641	O-Phosphate-P	0.821	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P344097

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986669	Aldrin	3.18	Spike	P	0 - 30
1986669	Alpha-BHC	2.12	Spike	P	0 - 30
1986669	Alpha-Chlordane	6.55	Spike	P	0 - 30
1986669	Beta-BHC	14.4	Spike	P	0 - 30
1986669	Carbophenothion	0.926	Spike	P	0 - 30
1986669	Chlorothalonil	12.6	Spike	P	0 - 30
1986669	Cypermethrin	0.711	Spike	P	0 - 30
1986669	DDD-p,p'	2.91	Spike	P	0 - 30
1986669	DDE-p,p'	0.696	Spike	P	0 - 30
1986669	DDT-p,p'	3.59	Spike	P	0 - 30
1986669	Delta-BHC	6.38	Spike	P	0 - 30
1986669	Dicofol	17.7	Spike	P	0 - 30
1986669	Dieldrin	10.1	Spike	P	0 - 30
1986669	Endosulfan I	9.47	Spike	P	0 - 30
1986669	Endosulfan II	3.54	Spike	P	0 - 30
1986669	Endosulfan Sulfate	9.71	Spike	P	0 - 30
1986669	Endrin	28.1	Spike	P	0 - 30
1986669	Endrin Aldehyde	12.8	Spike	P	0 - 30
1986669	Endrin Ketone	13.3	Spike	P	0 - 30
1986669	Gamma-BHC	7.24	Spike	P	0 - 30
1986669	Gamma-Chlordane	6.86	Spike	P	0 - 30
1986669	Heptachlor	4.82	Spike	P	0 - 30
1986669	Heptachlor Epoxide	8.18	Spike	P	0 - 30
1986669	Methoxychlor	3.53	Spike	P	0 - 30
1986669	Mirex	7.30	Spike	P	0 - 30
1986669	Permethrin	2.64	Spike	P	0 - 30
1986669	Trifluralin	4.05	Spike	P	0 - 30
LFB	Aldrin	45.7	LCS	F	0 - 30
LFB	Alpha-BHC	0.198	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.20	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P344097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Beta-BHC	6.74	LCS	P	0 - 30
LFB	Carbophenothion	4.82	LCS	P	0 - 30
LFB	Chlorothalonil	9.76	LCS	P	0 - 30
LFB	Cypermethrin	3.59	LCS	P	0 - 30
LFB	DDD-p,p'	4.73	LCS	P	0 - 30
LFB	DDE-p,p'	8.86	LCS	P	0 - 30
LFB	DDT-p,p'	1.51	LCS	P	0 - 30
LFB	Delta-BHC	4.43	LCS	P	0 - 30
LFB	Dicofol	0.618	LCS	P	0 - 30
LFB	Dieldrin	4.59	LCS	P	0 - 30
LFB	Endosulfan I	1.32	LCS	P	0 - 30
LFB	Endosulfan II	5.00	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.90	LCS	P	0 - 30
LFB	Endrin	16.0	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.717	LCS	P	0 - 30
LFB	Endrin Ketone	3.03	LCS	P	0 - 30
LFB	Gamma-BHC	2.84	LCS	P	0 - 30
LFB	Gamma-Chlordane	5.69	LCS	P	0 - 30
LFB	Heptachlor	4.07	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.953	LCS	P	0 - 30
LFB	Methoxychlor	2.20	LCS	P	0 - 30
LFB	Mirex	9.00	LCS	P	0 - 30
LFB	Permethrin	9.92	LCS	P	0 - 30
LFB	Trifluralin	1.00	LCS	P	0 - 30

Reference Method: EPA 8270D

Batch ID: P344213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986670	Acetochlor	9.62	Spike	P	0 - 30
1986670	Alachlor	9.48	Spike	P	0 - 30
1986670	Ametryn	55.2	Spike	F	0 - 30
1986670	Atrazine	5.51	Spike	P	0 - 30
1986670	Atrazine Desethyl	26.6	Spike	P	0 - 30
1986670	Azinphos Methyl	18.5	Spike	P	0 - 30
1986670	Bromacil	21.4	Spike	P	0 - 30
1986670	Butylate	32.4	Spike	F	0 - 30
1986670	Chlorpyrifos Ethyl	1.25	Spike	P	0 - 30
1986670	Chlorpyrifos Methyl	3.50	Spike	P	0 - 30
1986670	Cyanazine	35.6	Spike	F	0 - 30
1986670	Demeton	1.35	Spike	P	0 - 30
1986670	Diazinon	10.6	Spike	P	0 - 30
1986670	Disulfoton	14.6	Spike	P	0 - 30
1986670	EPTC	33.2	Spike	F	0 - 30
1986670	Ethion	1.80	Spike	P	0 - 30
1986670	Ethoprop	12.0	Spike	P	0 - 30
1986670	Fenamiphos	15.5	Spike	P	0 - 30
1986670	Fipronil	39.9	Spike	F	0 - 30
1986670	Fipronil Sulfide	37.2	Spike	F	0 - 30
1986670	Fipronil Sulfone	42.2	Spike	F	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270D

Batch ID: P344213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986670	Fonofos	8.96	Spike	P	0 - 30
1986670	Hexazinone	10.1	Spike	P	0 - 30
1986670	Malathion	10.6	Spike	P	0 - 30
1986670	Metalaxyl	12.6	Spike	P	0 - 30
1986670	Metolachlor	10.1	Spike	P	0 - 30
1986670	Metribuzin	77.1	Spike	F	0 - 30
1986670	Mevinphos	22.4	Spike	P	0 - 30
1986670	Molinate	24.7	Spike	P	0 - 30
1986670	Norflurazon	52.6	Spike	F	0 - 30
1986670	Parathion Ethyl	7.01	Spike	P	0 - 30
1986670	Parathion Methyl	5.40	Spike	P	0 - 30
1986670	Pendimethalin	7.01	Spike	P	0 - 30
1986670	Phorate	9.68	Spike	P	0 - 30
1986670	Prometon	11.2	Spike	P	0 - 30
1986670	Prometryn	9.39	Spike	P	0 - 30
1986670	Simazine	14.9	Spike	P	0 - 30
1986670	Terbufos	0.858	Spike	P	0 - 30
1986670	Terbutylazine	3.93	Spike	P	0 - 30
LFB	Acetochlor	6.95	LCS	P	0 - 30
LFB	Alachlor	6.27	LCS	P	0 - 30
LFB	Ametryn	11.1	LCS	P	0 - 30
LFB	Atrazine	4.73	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.68	LCS	P	0 - 30
LFB	Azinphos Methyl	7.79	LCS	P	0 - 30
LFB	Bromacil	1.43	LCS	P	0 - 30
LFB	Butylate	0.716	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.43	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.81	LCS	P	0 - 30
LFB	Cyanazine	9.59	LCS	P	0 - 30
LFB	Demeton	5.71	LCS	P	0 - 30
LFB	Diazinon	2.66	LCS	P	0 - 30
LFB	Disulfoton	11.9	LCS	P	0 - 30
LFB	EPTC	15.9	LCS	P	0 - 30
LFB	Ethion	2.27	LCS	P	0 - 30
LFB	Ethoprop	12.1	LCS	P	0 - 30
LFB	Fenamiphos	0.726	LCS	P	0 - 30
LFB	Fipronil	2.15	LCS	P	0 - 30
LFB	Fipronil Sulfide	14.6	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.50	LCS	P	0 - 30
LFB	Fonofos	7.91	LCS	P	0 - 30
LFB	Hexazinone	0.998	LCS	P	0 - 30
LFB	Malathion	19.5	LCS	P	0 - 30
LFB	Metalaxyl	1.32	LCS	P	0 - 30
LFB	Metolachlor	1.77	LCS	P	0 - 30
LFB	Metribuzin	10.2	LCS	P	0 - 30
LFB	Mevinphos	16.2	LCS	P	0 - 30
LFB	Molinate	2.71	LCS	P	0 - 30
LFB	Norflurazon	2.61	LCS	P	0 - 30
LFB	Parathion Ethyl	1.49	LCS	P	0 - 30
LFB	Parathion Methyl	4.02	LCS	P	0 - 30
LFB	Pendimethalin	5.52	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P344213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Phorate	32.4	LCS	F	0 - 30
LFB	Prometon	8.32	LCS	P	0 - 30
LFB	Prometryn	1.19	LCS	P	0 - 30
LFB	Simazine	4.44	LCS	P	0 - 30
LFB	Terbufos	15.4	LCS	P	0 - 30
LFB	Terbutylazine	0.556	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P344097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986957	Chlordane	3.91	Spike	P	0 - 30
1986957	Toxaphene	1.86	Spike	P	0 - 30
LFB	Chlordane	14.4	LCS	P	0 - 30
LFB	Toxaphene	22.1	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P343719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986060	Endothall	3.84	Spike	P	0 - 30
1986060	Sucralose	4.17	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P343931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986950	2,4-D	5.24	Spike	P	0 - 30
1986950	3-Hydroxycarbofuran	16.4	Spike	P	0 - 30
1986950	Acetaminophen	8.51	Spike	P	0 - 30
1986950	Aldicarb	24.6	Spike	P	0 - 30
1986950	Aldicarb Sulfone	9.27	Spike	P	0 - 30
1986950	Aldicarb Sulfoxide	14.9	Spike	P	0 - 30
1986950	Bentazon	7.81	Spike	P	0 - 30
1986950	Carbamazepine	7.17	Spike	P	0 - 30
1986950	Carbaryl	16.6	Spike	P	0 - 30
1986950	Carbofuran	8.71	Spike	P	0 - 30
1986950	Diuron	7.50	Spike	P	0 - 30
1986950	Fenuron	10.8	Spike	P	0 - 30
1986950	Fluridone	8.24	Spike	P	0 - 30
1986950	Hydrocodone	8.33	Spike	P	0 - 30
1986950	Imazapyr	11.2	Spike	P	0 - 30
1986950	Imidacloprid	11.5	Spike	P	0 - 30
1986950	Linuron	11.1	Spike	P	0 - 30
1986950	MCP	9.64	Spike	P	0 - 30
1986950	Methiocarb	16.1	Spike	P	0 - 30
1986950	Methomyl	7.51	Spike	P	0 - 30
1986950	Oxamyl	8.05	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P343931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986950	Primidone	17.4	Spike	P	0 - 30
1986950	Propoxur	15.2	Spike	P	0 - 30
1986950	Pyraclostrobin	5.76	Spike	P	0 - 30
1986950	Triclopyr	8.54	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P343963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986575	Color (true)	1.17	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P343964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986636	Color (true)	2.93	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P344453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986644	Total Alkalinity	4.08	Sample	F	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P344544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986605	TDS	6.00	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P344545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986723	TDS	2.36	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P344457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986644	Fluoride	0.479	Spike	P	0 - 3.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P344290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986583	Organic Carbon	0.174	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: 1986667
Field Sample ID: G2CE0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	66.3	P	30 - 160

Lab Sample ID: 1986668
Field Sample ID: G2CE0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	135	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.0	P	30 - 160
EPA 8321B	Diuron-d6	68.6	P	30 - 160
EPA 8321B	Endothall-d6	109	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	40 - 160
EPA 8321B	Primidone-d5	119	P	30 - 160
EPA 8321B	Sucralose-d6	83.4	P	40 - 160

Lab Sample ID: 1986669
Field Sample ID: G2CE0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	64.4	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	49.4	P	34 - 101
EPA 8276	Decachlorobiphenyl	55.7	P	31 - 108
EPA 8276	PCNB	105	P	62 - 142

Lab Sample ID: 1986670
Field Sample ID: G2CE0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	94.8	P	71 - 126
EPA 8270D	Terbufos-d10	116	P	59 - 149

Quality Assurance Report Calibration Verification

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A83415

Included Lab Sample IDs: 1986634, 1986635, 1986636, 1986643, 1986644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	103	P/P	90 - 110
Chloride	104	101	P/P	90 - 110
Sulfate	101	103	P/P	90 - 110
Sulfate	105	101	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A83425

Included Lab Sample IDs: 1986634, 1986635, 1986636, 1986643, 1986644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.4	P/P	90 - 115
Color (true)	98.2	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A83428

Included Lab Sample IDs: 1986640, 1986641, 1986642, 1986647, 1986648

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	97.8	P/P	90 - 110
O-Phosphate-P	99.0	99.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A83437

Included Lab Sample IDs: 1986634, 1986635, 1986636, 1986643, 1986644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A83449

Included Lab Sample IDs: 1986668

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	93.8	97.6	P/P	60 - 150
Endothall	83.1	86.2	P/P	60 - 150
Glufosinate	109	101	P/P	60 - 150
Glyphosate	101	105	P/P	60 - 150
Sucralose	84.3	87.6	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A83465

Included Lab Sample IDs: 1986637, 1986638, 1986639, 1986645, 1986646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	99.5	P/P	90 - 110
Kjeldahl Nitrogen	99.5	99.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A83479

Included Lab Sample IDs: 1986637, 1986638, 1986639, 1986645, 1986646

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83494

Included Lab Sample IDs: 1986637, 1986638, 1986639, 1986645, 1986646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	103	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110
Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83513

Included Lab Sample IDs: 1986637, 1986646

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A83527

Included Lab Sample IDs: 1986675, 1986676, 1986677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	96.9	P/P	90 - 110
Calcium	102	100	P/P	90 - 110
Iron	101	97.7	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Magnesium	101	98.1	P/P	90 - 110
Magnesium	104	101	P/P	90 - 110
Potassium	96.0	94.9	P/P	90 - 110
Potassium	98.7	96.0	P/P	90 - 110
Sodium	96.7	95.9	P/P	90 - 110
Sodium	99.3	96.7	P/P	90 - 110
Zinc	101	97.8	P/P	90 - 110
Zinc	104	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A83539

Included Lab Sample IDs: 1986637, 1986638, 1986639, 1986645, 1986646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	98.1	P/P	90 - 110
Organic Carbon	98.7	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83540

Included Lab Sample IDs: 1986638, 1986639, 1986645

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83584

Included Lab Sample IDs: 1986675, 1986676, 1986677

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	99.1	P/P	90 - 110
Cadmium	99.6	99.3	P/P	90 - 110
Chromium	98.7	98.2	P/P	90 - 110
Copper	97.6	96.6	P/P	90 - 110
Lead	97.7	97.2	P/P	90 - 110
Nickel	97.9	96.0	P/P	90 - 110
Silver	98.7	98.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A83593

Included Lab Sample IDs: 1986634, 1986635, 1986636, 1986643, 1986644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.4	P/P	90 - 110
Total Alkalinity	99.4	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A83593

Included Lab Sample IDs: 1986634, 1986635, 1986636, 1986643, 1986644

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

Reference Method: EPA 8270D

Run ID: A83697

Included Lab Sample IDs: 1986670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.9		P	80 - 120
Alachlor	99.4		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine Desethyl	88.6		P	80 - 120
Azinphos Methyl	107		P	80 - 120
Bromacil	90.7		P	80 - 120
Butylate	98.3		P	80 - 120
Chlorpyrifos Ethyl	93.3		P	80 - 120
Chlorpyrifos Methyl	92.5		P	80 - 120
Cyanazine	98.8		P	80 - 120
Demeton	88.5		P	80 - 120
Diazinon	96.2		P	80 - 120
Disulfoton	89.8		P	80 - 120
EPTC	95.8		P	80 - 120
Ethion	91.2		P	80 - 120
Ethoprop	94.5		P	80 - 120
Fenamiphos	93.1		P	80 - 120
Fipronil	99.1		P	80 - 120
Fipronil Sulfide	94.9		P	80 - 120
Fipronil Sulfone	99.6		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	95.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A83697

Included Lab Sample IDs: 1986670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Malathion	92.9		P	80 - 120
Metalaxyl	96.9		P	80 - 120
Metolachlor	96.8		P	80 - 120
Metribuzin	88.4		P	80 - 120
Mevinphos	97.3		P	80 - 120
Molinate	99.8		P	80 - 120
Norflurazon	96.2		P	80 - 120
Parathion Ethyl	91.3		P	80 - 120
Parathion Methyl	94.4		P	80 - 120
Pendimethalin	96.7		P	80 - 120
Phorate	101		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	93.4		P	80 - 120
Simazine	96.5		P	80 - 120
Terbufos	91.4		P	80 - 120
Terbuthylazine	95.4		P	80 - 120

Reference Method: EPA 8276

Run ID: A83718

Included Lab Sample IDs: 1986669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.1		P	80 - 120
Toxaphene	96.7		P	80 - 120

Reference Method: EPA 8321B

Run ID: A83753

Included Lab Sample IDs: 1986668

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	99.7	P/P	50 - 150
Bentazon	130	134	P/P	50 - 150
MCPP	105	104	P/P	50 - 150
Triclopyr	115	104	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A83769

Included Lab Sample IDs: 1986667

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	102	101	P/P	60 - 150
Acetaminophen	113	112	P/P	60 - 150
Aldicarb	97.1	104	P/P	60 - 150
Aldicarb Sulfone	100	109	P/P	50 - 150
Aldicarb Sulfoxide	112	109	P/P	50 - 150
Carbamazepine	111	110	P/P	60 - 150
Carbaryl	110	107	P/P	60 - 150
Carbofuran	109	108	P/P	50 - 150
Diuron	118	115	P/P	60 - 150
Fenuron	113	115	P/P	60 - 150
Fluridone	105	105	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A83769

Included Lab Sample IDs: 1986668

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	121	122	P/P	60 - 150
Imazapyr	102	103	P/P	50 - 150
Imidacloprid	111	106	P/P	60 - 150
Linuron	118	123	P/P	60 - 150
Methiocarb	104	112	P/P	50 - 150
Methomyl	92.3	97.5	P/P	50 - 150
Oxamyl	101	105	P/P	50 - 150
Primidone	104	106	P/P	60 - 150
Propoxur	108	105	P/P	50 - 150
Pyraclostrobin	113	114	P/P	60 - 150

Reference Method: EPA 8270D

Run ID: A83771

Included Lab Sample IDs: 1986670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	92.1		P	80 - 120

Reference Method: EPA 8270D

Run ID: A83784

Included Lab Sample IDs: 1986669

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.3		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	96.6		P	80 - 120
Carbophenothion	91.9		P	80 - 120
Chlorothalonil	98.1		P	80 - 120
Cypermethrin	89.0		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	101		P	80 - 120
Dicofol	104		P	80 - 120
Dieldrin	99.3		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	97.2		P	80 - 120
Endrin	99.8		P	80 - 120
Endrin Aldehyde	91.1		P	80 - 120
Endrin Ketone	97.9		P	80 - 120
Gamma-BHC	103		P	80 - 120
Gamma-Chlordane	99.7		P	80 - 120
Heptachlor	98.5		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Methoxychlor	106		P	80 - 120
Mirex	98.8		P	80 - 120
Permethrin	92.1		P	80 - 120
Trifluralin	98.0		P	80 - 120

Quality Assurance Report Calibration Verification

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.94	
EPA 200.7 Rev. 4.4	Calcium	104		98.6				0.353
	Iron	107		102	103			1.07
	Magnesium	104		97.5				1.37
	Potassium	99.1		96.4				0.551
	Sodium	98.7		96.8				0.244
	Zinc	103		95.7	96.6			0.907
EPA 200.8 Rev. 5.4	Arsenic	99.4		102	101			0.452
	Cadmium	100		101	100			0.908
	Chromium	97.1		95.7	95.0			0.706
	Copper	94.8		94.5	94.4			0.122
	Lead	96.1		99.0	97.6			1.42
	Nickel	97.8		97.2	96.3			0.923
	Silver	98.5		99.0	98.4			0.554
EPA 300.0 Rev. 2.1	Chloride	97.7		95.1	95.9		0.464	
	Chloride	99.5		97.9	101		0.740	
	Sulfate	97.7		90.6			0.610	
	Sulfate	97.2		94.3	93.0		0.991	
EPA 350.1 Rev. 2.0	Ammonia-N	102		100	98.3			1.60
	Ammonia-N	103		101	103			1.75
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109		103	98.4			2.42
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0		102	102			0.489
	NO ₂ NO ₃ -N	99.5		101	102			0.494
EPA 365.1 Rev. 2.0	Total-P	102		103	104			0.968
	Total-P	103		100	101			0.654
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2		98.9	100			1.12
	O-Phosphate-P	102		97.1	97.9			0.821
EPA 8270D	Acetochlor	82.2	88.1	87.0	79.1	6.95		9.62
	Alachlor	79.5	84.6	88.0	80.0	6.27		9.48
	Aldrin	27.1	43.2	58.8	56.9	45.7		3.18
	Alpha-BHC	82.1	81.9	84.0	82.2	0.198		2.12
	Alpha-Chlordane	79.7	84.8	68.2	63.9	6.20		6.55
	Ametryn	81.4	72.8	135	76.5	11.1		55.2
	Atrazine	92.9	97.4			4.73		5.51
	Atrazine Desethyl	84.7	80.0	64.0	36.8	5.68		26.6
	Azinphos Methyl	121	131	135	112	7.79		18.5
	Beta-BHC	93.8	100	94.0	81.3	6.74		14.4
	Bromacil	69.5	68.5	79.3	64.0	1.43		21.4
	Butylate	41.1	40.8	44.6	32.2	0.716		32.4
	Carbophenothion	78.0	81.8	102	101	4.82		0.926
	Chlorothalonil	95.6	86.7	145	128	9.76		12.6
	Chlorpyrifos Ethyl	86.5	87.8	77.4	76.4	1.43		1.25
	Chlorpyrifos Methyl	99.8	96.1	96.8	93.4	3.81		3.50
	Cyanazine	137	124	115	80.3	9.59		35.6
	Cypermethrin	71.0	73.6	109	109	3.59		0.711
	DDD-p,p'	91.5	96.0	76.6	74.4	4.73		2.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	DDE-p,p'	78.2	85.4	62.8	62.3	8.86	0.696
	DDT-p,p'	88.3	89.7	86.2	89.4	1.51	3.59
	Delta-BHC	101	105	269	253	4.43	6.38
	Demeton	54.9	51.9	71.2	70.2	5.71	1.35
	Diazinon	103	101	110	98.8	2.66	10.6
	Dicofol	81.2	81.7	77.7	65.1	0.618	17.7
	Dieldrin	88.0	92.1	66.8	60.4	4.59	10.1
	Disulfoton	74.1	65.8	107	92.1	11.9	14.6
	Endosulfan I	93.6	94.8	69.3	63.0	1.32	9.47
	Endosulfan II	108	103	106	102	5.00	3.54
	Endosulfan Sulfate	93.9	91.2	100	90.8	2.90	9.71
	Endrin	83.4	97.9	102	76.6	16.0	28.1
	Endrin Aldehyde	87.9	87.3	61.7	54.3	0.717	12.8
	Endrin Ketone	90.5	87.8	129	113	3.03	13.3
	EPTC	35.3	41.4	43.4	31.0	15.9	33.2
	Ethion	81.7	79.9	83.2	81.7	2.27	1.80
	Ethoprop	94.3	83.5	110	97.1	12.1	12.0
	Fenamiphos	68.1	67.6	69.8	59.7	0.726	15.5
	Fipronil	68.3	69.8	65.6	41.5	2.15	39.9
	Fipronil Sulfide	68.5	59.2	49.4	16.9	14.6	37.2
	Fipronil Sulfone	65.2	60.5			7.50	42.2
	Fonofos	108	99.6	104	114	7.91	8.96
	Gamma-BHC	80.6	82.9	97.1	90.3	2.84	7.24
	Gamma-Chlordane	76.6	81.1	68.4	63.9	5.69	6.86
	Heptachlor	67.2	70.0	64.8	61.7	4.07	4.82
	Heptachlor Epoxide	87.2	86.4	81.2	74.8	0.953	8.18
	Hexazinone	98.3	97.4	99.5	89.9	0.998	10.1
	Malathion	92.4	76.0	97.6	87.8	19.5	10.6
	Metalaxyl	76.5	77.5	84.5	74.5	1.32	12.6
	Methoxychlor	95.5	93.4	85.7	82.8	2.20	3.53
	Metolachlor	79.2	80.6	85.0	76.5	1.77	10.1
	Metribuzin	154	139	168	74.3	10.2	77.1
	Mevinphos	86.0	73.1	103	82.5	16.2	22.4
	Mirex	63.2	69.2	58.4	54.3	9.00	7.30
	Molinate	51.2	49.9	57.9	45.1	2.71	24.7
	Norflurazon	71.1	69.3	56.7	33.1	2.61	52.6
	Parathion Ethyl	84.2	85.4	86.9	81.0	1.49	7.01
	Parathion Methyl	102	106	98.1	92.9	4.02	5.40
	Pendimethalin	92.2	97.4	91.8	98.5	5.52	7.01
	Permethrin	70.1	77.4	83.0	85.2	9.92	2.64
	Phorate	73.1	52.7	92.7	84.2	32.4	9.68
	Prometon	70.0	76.0	83.0	74.2	8.32	11.2
	Prometryn	74.6	73.8	76.4	69.5	1.19	9.39
	Simazine	104	109	270	232	4.44	14.9
	Terbufos	91.7	78.6	99.0	98.2	15.4	0.858
	Terbuthylazine	87.9	87.4	86.8	83.5	0.556	3.93
	Trifluralin	81.0	81.8	69.7	66.9	1.00	4.05
EPA 8276	Chlordane	79.9	92.2	83.8	87.1	14.4	3.91
	Toxaphene	64.3	80.3	71.5	70.1	22.1	1.86
EPA 8321B	2,4-D	88.8		80.1	76.0		5.24
	3-Hydroxycarbofuran	93.8		122	103		16.4
	Acetaminophen	93.1		128	117		8.51
	Aldicarb	104		115	90.1		24.6
	Aldicarb Sulfone	97.7		134	122		9.27

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Aldicarb Sulfoxide	105	113	97.1			14.9
	AMPA	85.0	0.0	0.0			
	Bentazon	117	75.6	68.5			7.81
	Carbamazepine	96.8	116	108			7.17
	Carbaryl	83.8	81.4	68.2			16.6
	Carbofuran	85.6	85.2	78.1			8.71
	Diuron	90.4	96.5	88.5			7.50
	Endothall	84.3	70.2	72.9			3.84
	Fenuron	110	121	108			10.8
	Fluridone	87.8	88.8	80.4			8.24
	Glufosinate	88.3	0.0	0.0			
	Glyphosate	105	0.0	0.0			
	Hydrocodone	115	146	135			8.33
	Imazapyr	104	119	87.0			11.2
	Imidacloprid	104					11.5
	Linuron	90.8	100	89.9			11.1
	MCPP	103	92.7	84.2			9.64
	Methiocarb	87.6	99.0	84.3			16.1
	Methomyl	98.1	95.7	88.8			7.51
	Oxamyl	87.3	95.5	88.1			8.05
	Primidone	97.8	131	110			17.4
	Propoxur	86.6	85.9	73.8			15.2
	Pyraclostrobin	83.1	103	97.6			5.76
	Sucralose	88.0	46.4	49.1			4.17
	Triclopyr	106	96.1	88.3			8.54
SM 2120 B	Color (true)					1.17	
	Color (true)					2.93	
SM 2320 B-97	Total Alkalinity	102				4.08	
SM 2540 C-97	TDS					6.00	
	TDS					2.36	
SM 4500 F-C-97	Fluoride	96.5	94.2	94.7			0.479
SM 5310 B-00	Organic Carbon	96.6					0.174

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1986634, 1986635, 1986636, 1986643, 1986644
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1986675, 1986676, 1986677
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1986675, 1986676, 1986677
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1986634, 1986635, 1986636, 1986643, 1986644
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1986634, 1986635, 1986636, 1986643, 1986644
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1986637, 1986638, 1986639, 1986645, 1986646
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1986637, 1986638, 1986639, 1986645, 1986646
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1986637, 1986638, 1986639, 1986645, 1986646
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1986637, 1986638, 1986639, 1986645, 1986646

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	1986640, 1986641, 1986642, 1986647, 1986648
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1986669
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1986670
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1986669
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1986667
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1986668
SM 2120 B / E31780	True Color measured at 450 nm	1986634, 1986635, 1986636, 1986643, 1986644
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1986634, 1986635, 1986636, 1986643, 1986644
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1986634, 1986635, 1986636, 1986643, 1986644
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1986634, 1986635, 1986636, 1986643, 1986644
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1986634, 1986635, 1986636, 1986643, 1986644
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1986637, 1986638, 1986639, 1986645, 1986646

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	04/24/2018			04/24/2018 16:04	William L. Brown IV	1986634, 1986635, 1986636, 1986643, 1986644
EPA 200.7 Rev. 4.4	04/24/2018	04/25/2018 17:45	Elliott D. Healy	04/27/2018 14:48	Betina Topolski	1986675
	04/24/2018	04/25/2018 17:45	Elliott D. Healy	04/27/2018 15:20	Betina Topolski	1986676
	04/24/2018	04/25/2018 17:45	Elliott D. Healy	04/27/2018 15:28	Betina Topolski	1986677
EPA 200.8 Rev. 5.4	04/24/2018	04/25/2018 17:45	Elliott D. Healy	05/01/2018 15:27	Nadine Brooks	1986675
	04/24/2018	04/25/2018 17:45	Elliott D. Healy	05/01/2018 15:36	Nadine Brooks	1986676
	04/24/2018	04/25/2018 17:45	Elliott D. Healy	05/01/2018 15:46	Nadine Brooks	1986677
EPA 300.0 Rev. 2.1	04/24/2018			04/25/2018 16:58	Lipi Saha	1986634
	04/24/2018			04/25/2018 17:10	Lipi Saha	1986635
	04/24/2018			04/25/2018 17:22	Lipi Saha	1986636
	04/24/2018			04/25/2018 17:34	Lipi Saha	1986643
	04/24/2018			04/27/2018 14:34	Lipi Saha	1986644
EPA 350.1 Rev. 2.0	04/24/2018			04/25/2018 12:22	Ping Hua	1986637
	04/24/2018			04/25/2018 12:34	Ping Hua	1986638
	04/24/2018			04/25/2018 12:38	Ping Hua	1986639
	04/24/2018			04/25/2018 13:17	Ping Hua	1986645
	04/24/2018			04/25/2018 13:19	Ping Hua	1986646
EPA 351.2 Rev. 2.0	04/24/2018	04/25/2018 10:20	Adrian Shelby	04/25/2018 18:17	Tanya Welborn	1986637
	04/24/2018	04/25/2018 10:20	Adrian Shelby	04/25/2018 18:19	Tanya Welborn	1986638
	04/24/2018	04/25/2018 10:20	Adrian Shelby	04/25/2018 18:23	Tanya Welborn	1986639
	04/24/2018	04/25/2018 10:20	Adrian Shelby	04/25/2018 18:25	Tanya Welborn	1986645
	04/24/2018	04/25/2018 10:20	Adrian Shelby	04/25/2018 18:26	Tanya Welborn	1986646
EPA 353.2 Rev. 2.0	04/24/2018			04/26/2018 11:24	Lauren Bottorf	1986637
	04/24/2018			04/26/2018 11:31	Lauren Bottorf	1986638
	04/24/2018			04/26/2018 11:40	Lauren Bottorf	1986639
	04/24/2018			04/26/2018 11:41	Lauren Bottorf	1986645
	04/24/2018			04/26/2018 11:42	Lauren Bottorf	1986646
EPA 365.1 Rev. 2.0	04/24/2018	04/25/2018 13:20	Sima Feizi	04/27/2018 13:28	Beverly Y. Sanders	1986637
	04/24/2018	04/25/2018 13:20	Sima Feizi	04/27/2018 13:30	Beverly Y. Sanders	1986646
	04/24/2018	04/25/2018 13:20	Sima Feizi	04/30/2018 10:45	Beverly Y. Sanders	1986638, 1986639
	04/24/2018	04/25/2018 13:20	Sima Feizi	04/30/2018 10:46	Beverly Y. Sanders	1986645
EPA 365.1 Rev. 2.0 dissolved	04/24/2018			04/24/2018 14:30	Megan Treadwell	1986641
	04/24/2018			04/24/2018 15:02	Megan Treadwell	1986640
	04/24/2018			04/24/2018 15:03	Megan Treadwell	1986642
	04/24/2018			04/24/2018 15:04	Megan Treadwell	1986647, 1986648
EPA 8270D	04/24/2018	04/27/2018 07:57	Dinesh Mishra	05/04/2018 17:45	Marek Topolski	1986670
	04/24/2018	04/27/2018 07:57	Dinesh Mishra	05/08/2018 17:07	Marek Topolski	1986670
	04/24/2018	04/27/2018 09:00	Fe-Val Siddell	05/07/2018 20:46	Dinesh Mishra	1986669
EPA 8276	04/24/2018	04/27/2018 09:00	Fe-Val Siddell	05/03/2018 17:07	John P. Burgos	1986669

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/24/2018	04/24/2018 15:30	Juyoung Kim	04/25/2018 00:17	Juyoung Kim	1986668
	04/24/2018	04/25/2018 14:00	Hoor Shaik	05/04/2018 18:56	Juyoung Kim	1986668
	04/24/2018	04/25/2018 14:00	Hoor Shaik	05/05/2018 11:47	Juyoung Kim	1986667
	04/24/2018	04/25/2018 14:00	Hoor Shaik	05/05/2018 19:17	Juyoung Kim	1986668
SM 2120 B	04/24/2018			04/24/2018 15:08	Tanya Welborn	1986634
	04/24/2018			04/24/2018 15:09	Tanya Welborn	1986635
	04/24/2018			04/24/2018 15:13	Tanya Welborn	1986636
	04/24/2018			04/24/2018 15:14	Tanya Welborn	1986643, 1986644
SM 2320 B-97	04/24/2018			05/02/2018 05:07	Dale L. Simmons	1986644
	04/24/2018			05/02/2018 06:00	Dale L. Simmons	1986634
	04/24/2018			05/02/2018 06:10	Dale L. Simmons	1986635
	04/24/2018			05/02/2018 06:20	Dale L. Simmons	1986636
SM 2540 C-97	04/24/2018			05/02/2018 06:54	Dale L. Simmons	1986643
	04/24/2018			04/27/2018 16:08	Yijie Li	1986634, 1986635, 1986636, 1986643, 1986644
SM 2540 D-97	04/24/2018			04/27/2018 16:08	Yijie Li	1986634, 1986635, 1986636, 1986643, 1986644
SM 4500 F-C-97	04/24/2018			05/02/2018 05:00	Dale L. Simmons	1986644
	04/24/2018			05/02/2018 06:00	Dale L. Simmons	1986634
	04/24/2018			05/02/2018 06:10	Dale L. Simmons	1986635
	04/24/2018			05/02/2018 06:20	Dale L. Simmons	1986636
SM 5310 B-00	04/24/2018			05/02/2018 06:54	Dale L. Simmons	1986643
	04/24/2018			04/28/2018 05:03	Julia Storbeck	1986637
	04/24/2018			04/28/2018 05:18	Julia Storbeck	1986638
	04/24/2018			04/28/2018 05:33	Julia Storbeck	1986639
	04/24/2018			04/28/2018 05:48	Julia Storbeck	1986645
	04/24/2018			04/28/2018 06:32	Julia Storbeck	1986646