

Chemical Analysis Report

WAS-SECT-2018-06-06-01

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

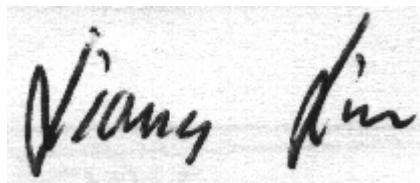
Event Description: **CDD, Godby, 3Pole, Ocklock, Harbinwood**
Request ID: **RQ-2018-06-04-38**
Customer: **WAS-SECT**
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 28-JUN-2018 14:56

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Central Drainage Ditch downstream of Orange Ave. **Collection Date/Time: 06/06/2018 08:00**

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998107	EPA 180.1 Rev. 2.0	Turbidity	20		NTU	P346502	
	EPA 300.0 Rev. 2.1	Chloride	4.4	A	mg Cl/L	P346892	
		Sulfate	3.1	A	mg SO4/L	P346895	
	SM 2120 B	Color (true)	8.1		PCU	P346505	
	SM 2320 B-97	Total Alkalinity	71		mg CaCO3/L	P346671	
	SM 2540 C-97	TDS	81		mg/L	P347015	
	SM 2540 D-97	TSS	12		mg/L	P347022	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P346674	
1998113	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P347044	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P346813	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P346789	
1998119	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P346530	
1998150	EPA 200.7 Rev. 4.4	Calcium	24.6		mg/L	P346578	
		Iron	440		ug/L	P346578	
		Magnesium	3.77		mg/L	P346578	
		Potassium	2.1		mg/L	P346578	
		Sodium	3.1		mg/L	P346578	
		Zinc	5.0	U	ug/L	P346578	
	EPA 200.8 Rev. 5.4	Arsenic	1.29		ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	0.40	U	ug/L	P346578	
		Copper	2.64		ug/L	P346578	
		Lead	0.48		ug/L	P346886	
		Nickel	0.37	I	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high 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: Central Drainage Ditch downstream of Orange Ave. **Collection Date/Time: 06/06/2018 08:00**

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998145	EPA 8321B	Aldicarb	0.020	U	ug/L	P346478	
		Aldicarb Sulfone	0.0020	U	ug/L	P346478	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P346478	MS
		Carbaryl	0.0020	U	ug/L	P346478	MS
		Carbofuran	0.0020	U	ug/L	P346478	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P346478	
		Methiocarb	0.0020	U	ug/L	P346478	
		Methomyl	0.0020	U	ug/L	P346478	
		Oxamyl	0.0020	U	ug/L	P346478	
		Propoxur	0.0020	U	ug/L	P346478	
1998146		2,4-D	0.060		ug/L	P346478	
		Bentazon	8.0E-04	U	ug/L	P346478	
		MCP	0.035		ug/L	P346478	
		Triclopyr**	0.0040	U	ug/L	P346478	
		Imidacloprid	0.014	J	ug/L	P346478	MS
		Diuron	0.036		ug/L	P346478	
		Pyraclostrobin**	0.0020	U	ug/L	P346478	
		Primidone**	0.0040	U	ug/L	P346478	
		Linuron	0.0040	U	ug/L	P346478	
		Acetaminophen**	0.0080	U	ug/L	P346478	
		Fenuron	0.016	U	ug/L	P346478	
		Imazapyr**	0.045		ug/L	P346478	
		Carbamazepine**	4.0E-04	U	ug/L	P346478	
		Fluridone**	4.0E-04	U	ug/L	P346478	
		Hydrocodone**	8.0E-04	U	ug/L	P346478	
		Sucralose**	0.066		ug/L	P346468	
		Glyphosate**	1.2		ug/L	P346468	
		AMPA**	0.50		ug/L	P346468	
		Endothall**	0.10	U	ug/L	P346468	
		Glufosinate**	0.10	U	ug/L	P346468	
		Acesulfame K**	0.27	I	ug/L	P346468	
1998148	EPA 8270D	Aldrin	4.3	U	ng/L	P346580	
		Alpha-BHC	2.1	U	ng/L	P346580	
		Beta-BHC	4.3	U	ng/L	P346580	
		Delta-BHC	4.3	U	ng/L	P346580	
		Gamma-BHC	4.3	U	ng/L	P346580	
		Carbophenothion	4.3	U	ng/L	P346580	
		Chlorothalonil	2.1	U	ng/L	P346580	
		Cypermethrin	21	U	ng/L	P346580	
		DDD-p,p'	3.2	U	ng/L	P346580	
		DDE-p,p'	3.2	U	ng/L	P346580	
		DDT-p,p'	3.2	U	ng/L	P346580	
		Dieldrin	4.3	U	ng/L	P346580	

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998148	EPA 8270D	Endosulfan I	4.3	U	ng/L	P346580	
		Endosulfan II	4.3	U	ng/L	P346580	
		Endosulfan Sulfate	2.1	U	ng/L	P346580	
		Endrin	2.1	U	ng/L	P346580	
		Endrin Aldehyde	2.1	U	ng/L	P346580	
		Heptachlor	1.6	U	ng/L	P346580	
		Heptachlor Epoxide	2.1	U	ng/L	P346580	
		Methoxychlor	4.3	U	ng/L	P346580	
		Mirex	2.1	U	ng/L	P346580	
		Permethrin	11	U	ng/L	P346580	
		Trifluralin	1.1	U	ng/L	P346580	
		Alpha-Chlordane	1.1	U	ng/L	P346580	
		Gamma-Chlordane	1.1	U	ng/L	P346580	
		Endrin Ketone	2.1	U	ng/L	P346580	
		Dicofol	32	U	ng/L	P346580	
	EPA 8276	Chlordane	3.9	I	ng/L	P346580	
		Toxaphene	32	U	ng/L	P346580	
1998149	EPA 8270D	Alachlor	0.24	U	ng/L	P346534	
		Ametryn	0.32	U	ng/L	P346534	
		Atrazine	33		ng/L	P346534	
		Atrazine Desethyl	6.0		ng/L	P346534	
		Azinphos Methyl	2.2	U	ng/L	P346534	
		Bromacil	0.49	U	ng/L	P346534	
		Butylate	0.39	U	ng/L	P346534	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P346534	
		Chlorpyrifos Methyl	0.097	U	ng/L	P346534	
		Demeton	1.9	U	ng/L	P346534	
		Diazinon	0.12	U	ng/L	P346534	
		Disulfoton	0.49	U	ng/L	P346534	
		EPTC	1.2	U	ng/L	P346534	
		Ethion	0.15	UJ	ng/L	P346534	LCS, MS, RPD
		Ethoprop	0.097	U	ng/L	P346534	
		Fenamiphos	0.24	U	ng/L	P346534	
		Fipronil	1.2		ng/L	P346534	
		Fipronil Sulfide	0.86		ng/L	P346534	
		Fipronil Sulfone	1.3		ng/L	P346534	
		Hexazinone	0.93	I	ng/L	P346534	
		Malathion	0.34	U	ng/L	P346534	
		Metribuzin	0.19	U	ng/L	P346534	
		Mevinphos	0.49	U	ng/L	P346534	
		Molinate	0.29	U	ng/L	P346534	
		Norflurazon	0.49	U	ng/L	P346534	
		Pendimethalin	0.97	U	ng/L	P346534	
		Phorate	0.24	U	ng/L	P346534	

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998149	EPA 8270D	Prometon	0.87	U	ng/L	P346534	RPD
		Prometryn	0.19	U	ng/L	P346534	
		Simazine	0.82	I	ng/L	P346534	
		Terbufos	0.097	U	ng/L	P346534	
		Terbuthylazine	0.41	U	ng/L	P346534	
		Fonofos	0.19	U	ng/L	P346534	
		Metalaxyl	38		ng/L	P346534	
		Metolachlor	1.3		ng/L	P346534	
		Acetochlor	0.73	I	ng/L	P346534	
		Cyanazine	0.49	U	ng/L	P346534	
		Parathion Ethyl	0.24	U	ng/L	P346534	
		Parathion Methyl	0.24	U	ng/L	P346534	

Ref. Method and Comment:

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

EPA 8276: Duplicate matrix spike was partially lost during extraction and is not reported.

EPA 8270D: MS accuracy for Atrazine Desethyl, Atrazine, Simazine, Metalaxyl, Bromacil, Metolachlor and Norflurazon 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: Godby Drainage at Progress Dr

Collection Date/Time: 06/06/2018 08:50

Field ID: G1WA0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998108	EPA 180.1 Rev. 2.0	Turbidity	20		NTU	P346502	
	EPA 300.0 Rev. 2.1	Chloride	2.5		mg Cl/L	P346892	
		Sulfate	1.5		mg SO4/L	P346895	
		Color (true)	17		PCU	P346505	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P346671	
	SM 2540 C-97	TDS	75		mg/L	P347015	
	SM 2540 D-97	TSS	26		mg/L	P347022	
	SM 4500 F-C-97	Fluoride	0.099	I	mg F/L	P346674	
1998114	EPA 350.1 Rev. 2.0	Ammonia-N	0.055		mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.41		mg N/L	P347094	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P346813	
	SM 5310 B-00	Organic Carbon	4.8		mg C/L	P346789	
1998120	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P346528	
1998151	EPA 200.7 Rev. 4.4	Calcium	17.8		mg/L	P346578	
		Iron	370		ug/L	P346578	
		Magnesium	5.18		mg/L	P346578	
		Potassium	1.1	I	mg/L	P346578	
		Sodium	1.8	I	mg/L	P346578	
		Zinc	5.0	U	ug/L	P346578	
	EPA 200.8 Rev. 5.4	Arsenic	1.61		ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	0.53	I	ug/L	P346578	
		Copper	1.41		ug/L	P346578	
		Lead	0.59		ug/L	P346886	
		Nickel	0.26	I	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

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

Sample Location: Ochlockonee River Upstream of US 90

Collection Date/Time: 06/06/2018 09:30

Field ID: G1WA0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998109	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P346502	
	EPA 300.0 Rev. 2.1	Chloride	9.0		mg Cl/L	P346892	
		Sulfate	3.6		mg SO4/L	P346895	
		Color (true)	140		PCU	P346505	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P346671	
	SM 2540 C-97	TDS	71		mg/L	P347015	
	SM 2540 D-97	TSS	13		mg/L	P347022	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P346674	
1998115	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P347094	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P346813	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P346789	
1998121	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.084		mg P/L	P346528	
1998152	EPA 200.7 Rev. 4.4	Calcium	5.81		mg/L	P346578	
		Iron	1.74E+03		ug/L	P346578	
		Magnesium	2.82		mg/L	P346578	
		Potassium	3.1		mg/L	P346578	
		Sodium	4.8		mg/L	P346578	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P346578	
		Arsenic	1.58		ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	1.4	I	ug/L	P346578	
		Copper	1.52		ug/L	P346578	
		Lead	0.82		ug/L	P346886	
		Nickel	0.66	I	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

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

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 06/22/2018.

Sample Location: Three Pole Creek

Collection Date/Time: 06/06/2018 10:15

Field ID: G1WA0076

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998110	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P346502	
	EPA 300.0 Rev. 2.1	Chloride	7.7		mg Cl/L	P346892	
		Sulfate	2.4		mg SO4/L	P346895	
		Color (true)	37		PCU	P346501	
	SM 2320 B-97	Total Alkalinity	109		mg CaCO3/L	P346671	
	SM 2540 C-97	TDS	118		mg/L	P347015	
	SM 2540 D-97	TSS	3	I	mg/L	P347022	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P346674	
1998116	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P347094	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P346814	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P346789	
1998122	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P346528	
1998153	EPA 200.7 Rev. 4.4	Calcium	35.4		mg/L	P346578	
		Iron	320		ug/L	P346578	
		Magnesium	6.75		mg/L	P346578	
		Potassium	0.42	I	mg/L	P346578	
		Sodium	4.0		mg/L	P346578	
		Zinc	5.0	U	ug/L	P346578	
	EPA 200.8 Rev. 5.4	Arsenic	0.76		ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	0.40	U	ug/L	P346578	
		Copper	0.26	I	ug/L	P346578	
		Lead	0.13	I	ug/L	P346886	
		Nickel	0.56	I	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

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

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 06/06/2018 11:45

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998111	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P346502	
	EPA 300.0 Rev. 2.1	Chloride	7.4		mg Cl/L	P346892	
		Sulfate	1.1		mg SO4/L	P346895	
	SM 2120 B	Color (true)	56		PCU	P346501	
	SM 2320 B-97	Total Alkalinity	34		mg CaCO3/L	P346670	
	SM 2540 C-97	TDS	57		mg/L	P347015	
	SM 2540 D-97	TSS	5	I	mg/L	P347022	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P346673	
1998117	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P347094	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P346814	
	SM 5310 B-00	Organic Carbon	7.8		mg C/L	P346789	
1998123	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P346528	
1998154	EPA 200.7 Rev. 4.4	Calcium	9.88		mg/L	P346578	
		Iron	800		ug/L	P346578	
		Magnesium	3.27		mg/L	P346578	
		Potassium	1.6		mg/L	P346578	
		Sodium	4.3		mg/L	P346578	
		Zinc	5.0	U	ug/L	P346578	
	EPA 200.8 Rev. 5.4	Arsenic	1.55		ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	0.48	I	ug/L	P346578	
		Copper	0.67	I	ug/L	P346578	
		Lead	0.28		ug/L	P346886	
		Nickel	0.24	I	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

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

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 06/06/2018 11:45

Field ID: G1WA0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998143	EPA 8321B	2,4-D	0.0020	U	ug/L	P346478	
		Bentazon	8.0E-04	U	ug/L	P346478	
		MCP	0.0020	U	ug/L	P346478	
		Triclopyr**	0.0040	U	ug/L	P346478	
		Imidacloprid	0.066		ug/L	P346478	MS
		Diuron	0.0020	U	ug/L	P346478	
		Pyraclostrobin**	0.0020	U	ug/L	P346478	
		Primidone**	0.0040	U	ug/L	P346478	
		Linuron	0.0040	U	ug/L	P346478	
		Acetaminophen**	0.0080	U	ug/L	P346478	
		Fenuron	0.016	U	ug/L	P346478	
		Imazapyr**	0.48		ug/L	P346478	
		Carbamazepine**	4.0E-04	U	ug/L	P346478	
		Fluridone**	4.0E-04	U	ug/L	P346478	
		Hydrocodone**	8.0E-04	U	ug/L	P346478	
		Sucralose**	0.22		ug/L	P346468	

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 06/06/2018 11:45

Field ID: G1WA0034_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998112	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P346502	
	EPA 300.0 Rev. 2.1	Chloride	7.3		mg Cl/L	P346892	
		Sulfate	1.1		mg SO4/L	P346895	
		Color (true)	55	A	PCU	P346501	
	SM 2320 B-97	Total Alkalinity	33		mg CaCO3/L	P346910	
	SM 2540 C-97	TDS	58		mg/L	P347015	
	SM 2540 D-97	TSS	6	I	mg/L	P347022	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P346911	
1998118	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P347094	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P346814	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P346789	
1998124	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P346528	
1998155	EPA 200.7 Rev. 4.4	Calcium	9.81		mg/L	P346578	
		Iron	790		ug/L	P346578	
		Magnesium	3.22		mg/L	P346578	
		Potassium	1.6		mg/L	P346578	
		Sodium	4.2		mg/L	P346578	
		Zinc	5.0	U	ug/L	P346578	
	EPA 200.8 Rev. 5.4	Arsenic	1.55		ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	0.49	I	ug/L	P346578	
		Copper	0.69	I	ug/L	P346578	
		Lead	0.30		ug/L	P346886	
		Nickel	0.23	I	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

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

Sample Location: Harbinwood Estates Drain

Collection Date/Time: 06/06/2018 11:45

Field ID: G1WA0034_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998144	EPA 8321B	2,4-D	0.0020	U	ug/L	P346478	
		Bentazon	8.0E-04	U	ug/L	P346478	
		MCP	0.0020	U	ug/L	P346478	
		Triclopyr**	0.0040	U	ug/L	P346478	
		Imidacloprid	0.065		ug/L	P346478	MS
		Diuron	0.0020	U	ug/L	P346478	
		Pyraclostrobin**	0.0020	U	ug/L	P346478	
		Primidone**	0.0040	U	ug/L	P346478	
		Linuron	0.0040	U	ug/L	P346478	
		Acetaminophen**	0.0080	U	ug/L	P346478	
		Fenuron	0.016	U	ug/L	P346478	
		Imazapyr**	0.47		ug/L	P346478	
		Carbamazepine**	4.0E-04	U	ug/L	P346478	
		Fluridone**	4.0E-04	U	ug/L	P346478	
		Hydrocodone**	8.0E-04	U	ug/L	P346478	
		Sucralose**	0.21		ug/L	P346468	

Sample Location: Field Blank

Collection Date/Time: 06/06/2018 11:10

Field ID: Blank_0606018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998125	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P346504	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P346892	
		Sulfate	0.20	U	mg SO4/L	P346895	
		Color (true)	2.5	U	PCU	P346503	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P346910	
	SM 2540 C-97	TDS	15	U	mg/L	P347011	
	SM 2540 D-97	TSS	2	U	mg/L	P347018	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346911	
1998126	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P347053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P347329	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P346685	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P346814	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P346789	
1998127	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346528	
1998147	EPA 8321B	2,4-D	0.0020	U	ug/L	P346478	
		Bentazon	8.0E-04	U	ug/L	P346478	
		MCP	0.0020	U	ug/L	P346478	
		Triclopyr**	0.0040	U	ug/L	P346478	
		Imidacloprid	0.0020	U	ug/L	P346478	MS
		Diuron	0.0020	U	ug/L	P346478	
		Pyraclostrobin**	0.0020	U	ug/L	P346478	
		Primidone**	0.0040	U	ug/L	P346478	
		Linuron	0.0040	U	ug/L	P346478	
		Acetaminophen**	0.0080	U	ug/L	P346478	
		Fenuron	0.016	U	ug/L	P346478	
		Imazapyr**	0.0040	U	ug/L	P346478	
		Carbamazepine**	4.0E-04	U	ug/L	P346478	
		Fluridone**	4.0E-04	U	ug/L	P346478	
		Hydrocodone**	8.0E-04	U	ug/L	P346478	
		Sucralose**	0.010	U	ug/L	P346468	
		Glyphosate**	0.10	U	ug/L	P346468	
		AMPA**	0.10	U	ug/L	P346468	
		Endothall**	0.10	U	ug/L	P346468	
		Glufosinate**	0.10	U	ug/L	P346468	
1998156	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P346578	
		Iron	30	U	ug/L	P346578	
		Magnesium	0.040	U	mg/L	P346578	
		Potassium	0.30	U	mg/L	P346578	
		Sodium	0.50	U	mg/L	P346578	
		Zinc	5.0	U	ug/L	P346578	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P346578	
		Cadmium	0.020	U	ug/L	P346578	
		Chromium	0.40	U	ug/L	P346578	

Field ID: Blank_0606018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998156	EPA 200.8 Rev. 5.4	Copper	0.20	U	ug/L	P346578	
		Lead	0.050	U	ug/L	P346578	
		Nickel	0.20	U	ug/L	P346578	
		Silver	0.010	U	ug/L	P347286	

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.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346502

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346504

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P346578

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346578

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	0.23	U	ug/L
Nickel	0.20	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346886

Component	Result	Code	Units
Lead	0.050	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P347286

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346892

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346895

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346895

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347053

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347044

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347094

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347329

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346685

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346813

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346814

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346528

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P346530

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

Reference Method: EPA 8270D
 Batch ID: P346534

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
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D
 Batch ID: P346580

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P346580

Component	Result	Code	Units
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P346580

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

Reference Method: EPA 8321B
Batch ID: P346468

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
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	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P346478

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P346478

Component	Result	Code	Units
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	0.039	I	ug/L
Fluridone	4.0E-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: SM 2120 B
Batch ID: P346501

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P346503

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P346505

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P346670

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

Reference Method: SM 2320 B-97
Batch ID: P346671

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P346910

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

Reference Method: SM 2540 C-97
Batch ID: P347011

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P347015

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P347018

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P347022

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P346673

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P346674

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P346911

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P346789

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: P346578

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346578

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	100		P	85 - 115
Copper	97.7		P	85 - 115
Lead	97.1		P	85 - 115
Nickel	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	98.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P347286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	95.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346892

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346895

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347053

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: P347044

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

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347044

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347094

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347329

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346685

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346814

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346528

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346530

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

Reference Method: EPA 8270D
Batch ID: P346534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.5	101	P/P	74 - 119
Alachlor	90.2	95.8	P/P	75 - 118
Ametryn	94.9	114	P/P	59 - 137
Atrazine	96.6	102	P/P	73 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P346534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	101	112	P/P	19 - 129
Azinphos Methyl	102	111	P/P	65 - 181
Bromacil	91.0	90.6	P/P	43 - 123
Butylate	62.6	65.4	P/P	28 - 85.0
Chlorpyrifos Ethyl	82.8	87.3	P/P	55 - 112
Chlorpyrifos Methyl	91.7	96.0	P/P	35 - 124
Cyanazine	140	154	P/P	26 - 262
Demeton	73.1	77.2	P/P	43 - 122
Diazinon	103	110	P/P	72 - 120
Disulfoton	82.3	87.1	P/P	45 - 137
EPTC	60.8	61.0	P/P	28 - 95.0
Ethion	67.7	55.9	P/F	63 - 127
Ethoprop	68.3	83.2	P/P	63 - 109
Fenamiphos	77.3	86.6	P/P	66 - 136
Fipronil	95.8	98.0	P/P	63 - 126
Fipronil Sulfide	83.4	86.0	P/P	59 - 123
Fipronil Sulfone	76.3	76.2	P/P	56 - 122
Fonofos	96.6	105	P/P	64 - 114
Hexazinone	97.1	102	P/P	49 - 144
Malathion	88.3	88.0	P/P	68 - 131
Metalaxyl	94.6	98.3	P/P	57 - 126
Metolachlor	90.1	94.9	P/P	75 - 118
Metribuzin	147	132	P/P	46 - 169
Mevinphos	88.7	92.8	P/P	34 - 126
Molinate	58.2	67.9	P/P	37 - 101
Norflurazon	91.2	94.9	P/P	63 - 127
Parathion Ethyl	92.2	96.8	P/P	78 - 109
Parathion Methyl	103	104	P/P	74 - 123
Pendimethalin	108	115	P/P	51 - 130
Phorate	80.3	89.8	P/P	53 - 116
Prometon	86.3	84.1	P/P	66 - 124
Prometryn	91.8	95.0	P/P	66 - 124
Simazine	96.9	99.5	P/P	62 - 134
Terbufos	93.7	102	P/P	59 - 115
Terbuthylazine	94.4	99.2	P/P	76 - 113

Reference Method: EPA 8270D

Batch ID: P346580

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.3	55.2	P/P	24 - 89.0
Alpha-BHC	85.8	94.8	P/P	58 - 117
Alpha-Chlordane	83.8	91.0	P/P	56 - 115
Beta-BHC	108	105	P/P	55 - 137
Carbophenothion	83.4	88.1	P/P	37 - 145
Chlorothalonil	71.1	91.0	P/P	26 - 163
Cypermethrin	83.9	88.2	P/P	42 - 156
DDD-p,p'	99.8	109	P/P	59 - 129
DDE-p,p'	86.1	98.2	P/P	52 - 117
DDT-p,p'	90.5	97.9	P/P	48 - 128
Delta-BHC	111	125	P/P	59 - 158
Dicofol	110	104	P/P	19 - 124

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P346580

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	84.2	103	P/P	57 - 126
Endosulfan I	96.5	97.9	P/P	59 - 133
Endosulfan II	105	112	P/P	58 - 148
Endosulfan Sulfate	95.3	104	P/P	56 - 135
Endrin	92.9	83.8	P/P	50 - 140
Endrin Aldehyde	95.7	108	P/P	47 - 141
Endrin Ketone	93.1	98.7	P/P	63 - 123
Gamma-BHC	99.4	101	P/P	59 - 132
Gamma-Chlordane	81.2	88.0	P/P	55 - 112
Heptachlor	68.7	69.0	P/P	45 - 102
Heptachlor Epoxide	85.4	92.1	P/P	61 - 116
Methoxychlor	106	106	P/P	60 - 133
Mirex	72.2	79.1	P/P	40 - 98.0
Permethrin	81.1	87.8	P/P	45 - 131
Trifluralin	83.4	86.3	P/P	38 - 179

Reference Method: EPA 8276

Batch ID: P346580

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	87.6	100	P/P	47 - 125
Toxaphene	77.3	81.5	P/P	46 - 147

Reference Method: EPA 8321B

Batch ID: P346468

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 140
AMPA	96.8		P	40 - 140
Endothall	99.9		P	40 - 140
Glufosinate	96.3		P	40 - 140
Glyphosate	105		P	40 - 140
Sucralose	82.3		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P346478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	88.9		P	40 - 150
3-Hydroxycarbofuran	97.1		P	40 - 150
Acetaminophen	114		P	30 - 150
Aldicarb	71.7		P	30 - 150
Aldicarb Sulfone	99.3		P	40 - 150
Aldicarb Sulfoxide	86.4		P	40 - 150
Bentazon	86.5		P	30 - 150
Carbamazepine	103		P	40 - 150
Carbaryl	60.1		P	40 - 150
Carbofuran	79.3		P	40 - 150
Diuron	74.5		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	88.5		P	40 - 150
Hydrocodone	97.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
 Batch ID: P346478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imazapyr	87.9		P	40 - 150
Imidacloprid	123		P	40 - 160
Linuron	77.4		P	40 - 150
MCPP	91.5		P	40 - 150
Methiocarb	81.4		P	40 - 150
Methomyl	92.7		P	40 - 150
Oxamyl	93.8		P	40 - 150
Primidone	105		P	40 - 150
Propoxur	86.8		P	40 - 150
Pyraclostrobin	97.2		P	40 - 150
Triclopyr	93.4		P	40 - 150

Reference Method: SM 2320 B-97
 Batch ID: P346670

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 107

Reference Method: SM 2320 B-97
 Batch ID: P346671

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 2320 B-97
 Batch ID: P346910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 107

Reference Method: SM 4500 F-C-97
 Batch ID: P346673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	91 - 105

Reference Method: SM 4500 F-C-97
 Batch ID: P346674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.3		P	91 - 105

Reference Method: SM 4500 F-C-97
 Batch ID: P346911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P346789

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

Reference Method: SM 5310 B-00
Batch ID: P346789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P346578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998151	Calcium	102		P	80 - 120
1998151	Iron	106		P	80 - 120
1998151	Magnesium	101		P	80 - 120
1998151	Potassium	108		P	80 - 120
1998151	Sodium	109		P	80 - 120
1998151	Zinc	105		P	80 - 120
1998153	Calcium	100		P	80 - 120
1998153	Iron	103	104	P/P	80 - 120
1998153	Magnesium	100		P	80 - 120
1998153	Potassium	103	104	P/P	80 - 120
1998153	Sodium	102	105	P/P	80 - 120
1998153	Zinc	97.4	98.8	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998151	Arsenic	101		P	80 - 120
1998151	Cadmium	101		P	80 - 120
1998151	Chromium	99.3		P	80 - 120
1998151	Copper	95.3		P	80 - 120
1998151	Lead	97.9		P	80 - 120
1998151	Nickel	98.6		P	80 - 120
1998153	Arsenic	102	101	P/P	80 - 120
1998153	Cadmium	101	100	P/P	80 - 120
1998153	Chromium	102	101	P/P	80 - 120
1998153	Copper	95.0	94.5	P/P	80 - 120
1998153	Lead	98.2	96.8	P/P	80 - 120
1998153	Nickel	97.6	97.5	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1989807	Lead	101	101	P/P	80 - 120
1998151	Lead	99.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P347286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998096	Silver	103		P	80 - 120
1998150	Silver	104	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346892

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998107	Chloride	98.7		P	90 - 110
1998236	Chloride	93.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998107	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998113	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998116	Kjeldahl Nitrogen	92.9	94.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999690	Kjeldahl Nitrogen	93.3	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346685

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998066	NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998114	Total-P	99.0	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998238	Total-P	97.5	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998119	O-Phosphate-P	97.4	97.7	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P346534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998027	Acetochlor	89.0	94.7	P/P	67 - 125
1998027	Alachlor	82.6	89.0	P/P	69 - 123
1998027	Ametryn	122	109	P/P	52 - 151
1998027	Azinphos Methyl	94.3	90.4	P/P	48 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P346534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998027	Butylate	59.3	69.6	P/P	10 - 85.0
1998027	Chlorpyrifos Ethyl	84.5	93.1	P/P	54 - 115
1998027	Chlorpyrifos Methyl	84.4	88.3	P/P	44 - 117
1998027	Cyanazine	96.6	101	P/P	10 - 262
1998027	Demeton	103	105	P/P	24 - 145
1998027	Diazinon	105	111	P/P	66 - 129
1998027	Disulfoton	101	105	P/P	45 - 139
1998027	EPTC	51.9	65.0	P/P	10 - 86.0
1998027	Ethion	24.8	41.9	F/F	59 - 133
1998027	Ethoprop	75.3	73.7	P/P	54 - 116
1998027	Fenamiphos	59.8	57.6	P/P	55 - 140
1998027	Fipronil	82.7	85.0	P/P	37 - 142
1998027	Fipronil Sulfide	81.5	94.1	P/P	37 - 130
1998027	Fipronil Sulfone	69.5	74.8	P/P	18 - 143
1998027	Fonofos	107	112	P/P	55 - 118
1998027	Hexazinone	101	104	P/P	62 - 140
1998027	Malathion	86.7	85.9	P/P	64 - 132
1998027	Metribuzin	149	150	P/P	16 - 218
1998027	Mevinphos	101	112	P/P	34 - 129
1998027	Molinate	47.9	54.6	P/P	16 - 99.0
1998027	Parathion Ethyl	97.3	108	P/P	71 - 112
1998027	Parathion Methyl	110	118	P/P	65 - 127
1998027	Pendimethalin	122	130	P/P	35 - 159
1998027	Phorate	104	107	P/P	41 - 129
1998027	Prometon	59.5	82.5	P/P	56 - 140
1998027	Prometryn	84.5	90.0	P/P	65 - 130
1998027	Terbufos	115	117	P/P	53 - 126
1998027	Terbutylazine	94.3	97.2	P/P	73 - 114

Reference Method: EPA 8270D

Batch ID: P346580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998576	Aldrin	64.2	62.8	P/P	26 - 96.0
1998576	Alpha-BHC	94.7	98.9	P/P	51 - 123
1998576	Alpha-Chlordane	96.1	92.4	P/P	45 - 120
1998576	Beta-BHC	102	101	P/P	43 - 146
1998576	Carbophenothion	94.6	89.2	P/P	26 - 179
1998576	Chlorothalonil	105	94.3	P/P	10 - 215
1998576	Cypermethrin	95.6	85.0	P/P	35 - 169
1998576	DDD-p,p'	108	106	P/P	49 - 131
1998576	DDE-p,p'	95.7	91.1	P/P	39 - 127
1998576	DDT-p,p'	97.7	96.0	P/P	49 - 120
1998576	Delta-BHC	131	147	P/P	49 - 187
1998576	Dicofol	103	111	P/P	10 - 129
1998576	Dieldrin	95.7	105	P/P	46 - 132
1998576	Endosulfan I	109	103	P/P	57 - 130
1998576	Endosulfan II	120	101	P/P	52 - 148
1998576	Endosulfan Sulfate	107	105	P/P	55 - 129
1998576	Endrin	111	114	P/P	45 - 133
1998576	Endrin Aldehyde	98.1	104	P/P	26 - 140
1998576	Endrin Ketone	114	112	P/P	60 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P346580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998576	Gamma-BHC	110	110	P/P	50 - 145
1998576	Gamma-Chlordane	91.9	89.1	P/P	44 - 118
1998576	Heptachlor	79.0	74.3	P/P	35 - 106
1998576	Heptachlor Epoxide	98.9	95.9	P/P	52 - 123
1998576	Methoxychlor	112	116	P/P	54 - 132
1998576	Mirex	78.2	77.0	P/P	36 - 107
1998576	Permethrin	85.4	87.9	P/P	47 - 135
1998576	Trifluralin	88.0	86.7	P/P	32 - 228

Reference Method: EPA 8276

Batch ID: P346580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1999411	Chlordane	104		P	41 - 134
1999411	Toxaphene	85.2		P	39 - 158

Reference Method: EPA 8321B

Batch ID: P346468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998021	Acesulfame K	136	125	P/P	40 - 140
1998021	AMPA	97.7	93.1	P/P	40 - 140
1998021	Endothall	75.0	69.1	P/P	40 - 140
1998021	Glufosinate	120	137	P/P	40 - 140
1998021	Glyphosate	83.1	95.3	P/P	40 - 140
1998021	Sucralose	83.8	82.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P346478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998022	3-Hydroxycarbofuran	67.3	66.3	P/P	40 - 150
1998022	Aldicarb	32.5	41.8	P/P	30 - 150
1998022	Aldicarb Sulfone	71.1	64.8	P/P	40 - 150
1998022	Aldicarb Sulfoxide	28.3	28.8	F/F	40 - 150
1998022	Carbaryl	33.8	36.9	F/F	40 - 150
1998022	Carbofuran	45.0	55.0	P/P	40 - 150
1998022	Methiocarb	57.2	67.2	P/P	40 - 150
1998022	Methomyl	54.2	57.9	P/P	40 - 150
1998022	Oxamyl	59.4	67.2	P/P	40 - 150
1998022	Propoxur	47.3	47.0	P/P	40 - 150
1998146	2,4-D	55.0	68.1	P/P	40 - 150
1998146	Acetaminophen	101	114	P/P	30 - 150
1998146	Bentazon	59.5	67.8	P/P	30 - 150
1998146	Carbamazepine	61.7	67.3	P/P	40 - 150
1998146	Diuron	43.4	44.9	P/P	40 - 150
1998146	Fenuron	73.9	80.6	P/P	40 - 150
1998146	Fluridone	67.4	65.8	P/P	40 - 150
1998146	Hydrocodone	92.1	93.0	P/P	40 - 150
1998146	Imazapyr	91.2	102	P/P	40 - 150
1998146	Imidacloprid	160	188	P/F	40 - 160
1998146	Linuron	53.0	52.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P346478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998146	MCP	108	109	P/P	40 - 150
1998146	Primidone	118	123	P/P	40 - 150
1998146	Pyraclostrobin	59.0	56.8	P/P	40 - 150
1998146	Triclopyr	105	113	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P346673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997945	Fluoride	98.5	97.7	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P346674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997983	Fluoride	97.0	98.5	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P346911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998168	Fluoride	98.2	97.5	P/P	91 - 105

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998056	Turbidity	2.36	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998167	Turbidity	7.04	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P346578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998153	Calcium	1.15	Spike	P	0 - 20
1998153	Iron	1.02	Spike	P	0 - 20
1998153	Magnesium	1.54	Spike	P	0 - 20
1998153	Potassium	1.62	Spike	P	0 - 20
1998153	Sodium	1.16	Spike	P	0 - 20
1998153	Zinc	1.41	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998153	Arsenic	0.943	Spike	P	0 - 20
1998153	Cadmium	1.16	Spike	P	0 - 20
1998153	Chromium	0.432	Spike	P	0 - 20
1998153	Copper	0.551	Spike	P	0 - 20
1998153	Lead	1.40	Spike	P	0 - 20
1998153	Nickel	0.179	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P346886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1989807	Lead	0.511	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P347286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998150	Silver	0.247	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998107	Chloride	2.54	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998107	Sulfate	3.27	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998113	Ammonia-N	0.386	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998113	Kjeldahl Nitrogen	1.91	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998116	Kjeldahl Nitrogen	1.49	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1999690	Kjeldahl Nitrogen	0.416	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998066	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998114	Total-P	0.527	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P346814

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998238	Total-P	0.890	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P346528

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998123	O-Phosphate-P	0.444	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P346530

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998119	O-Phosphate-P	0.241	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P346534

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998027	Acetochlor	6.20	Spike	P	0 - 30
1998027	Alachlor	7.52	Spike	P	0 - 30
1998027	Ametryn	11.2	Spike	P	0 - 30
1998027	Atrazine	5.54	Spike	P	0 - 30
1998027	Atrazine Desethyl	10.2	Spike	P	0 - 30
1998027	Azinphos Methyl	4.23	Spike	P	0 - 30
1998027	Bromacil	5.03	Spike	P	0 - 30
1998027	Butylate	15.9	Spike	P	0 - 30
1998027	Chlorpyrifos Ethyl	9.69	Spike	P	0 - 30
1998027	Chlorpyrifos Methyl	4.54	Spike	P	0 - 30
1998027	Cyanazine	4.29	Spike	P	0 - 30
1998027	Demeton	2.65	Spike	P	0 - 30
1998027	Diazinon	5.40	Spike	P	0 - 30
1998027	Disulfoton	3.66	Spike	P	0 - 30
1998027	EPTC	22.5	Spike	P	0 - 30
1998027	Ethion	51.5	Spike	F	0 - 30
1998027	Ethoprop	2.23	Spike	P	0 - 30
1998027	Fenamiphos	3.81	Spike	P	0 - 30
1998027	Fipronil	2.70	Spike	P	0 - 30
1998027	Fipronil Sulfide	14.3	Spike	P	0 - 30
1998027	Fipronil Sulfone	7.43	Spike	P	0 - 30
1998027	Fonofos	3.89	Spike	P	0 - 30
1998027	Hexazinone	1.78	Spike	P	0 - 30
1998027	Malathion	0.891	Spike	P	0 - 30
1998027	Metalaxyl	9.02	Spike	P	0 - 30
1998027	Metolachlor	2.95	Spike	P	0 - 30
1998027	Metribuzin	0.571	Spike	P	0 - 30
1998027	Mevinphos	10.4	Spike	P	0 - 30
1998027	Molinate	13.1	Spike	P	0 - 30
1998027	Norflurazon	9.92	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P346534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998027	Parathion Ethyl	10.8	Spike	P	0 - 30
1998027	Parathion Methyl	7.72	Spike	P	0 - 30
1998027	Pendimethalin	5.77	Spike	P	0 - 30
1998027	Phorate	3.06	Spike	P	0 - 30
1998027	Prometon	32.3	Spike	F	0 - 30
1998027	Prometryn	6.29	Spike	P	0 - 30
1998027	Simazine	11.7	Spike	P	0 - 30
1998027	Terbufos	2.20	Spike	P	0 - 30
1998027	Terbuthylazine	2.93	Spike	P	0 - 30
LFB	Acetochlor	1.62	LCS	P	0 - 30
LFB	Alachlor	5.94	LCS	P	0 - 30
LFB	Ametryn	18.5	LCS	P	0 - 30
LFB	Atrazine	5.90	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.5	LCS	P	0 - 30
LFB	Azinphos Methyl	8.56	LCS	P	0 - 30
LFB	Bromacil	0.422	LCS	P	0 - 30
LFB	Butylate	4.27	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.26	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.61	LCS	P	0 - 30
LFB	Cyanazine	9.08	LCS	P	0 - 30
LFB	Demeton	5.48	LCS	P	0 - 30
LFB	Diazinon	6.71	LCS	P	0 - 30
LFB	Disulfoton	5.67	LCS	P	0 - 30
LFB	EPTC	0.442	LCS	P	0 - 30
LFB	Ethion	19.1	LCS	P	0 - 30
LFB	Ethoprop	19.7	LCS	P	0 - 30
LFB	Fenamiphos	11.4	LCS	P	0 - 30
LFB	Fipronil	2.24	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.16	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.0754	LCS	P	0 - 30
LFB	Fonofos	8.22	LCS	P	0 - 30
LFB	Hexazinone	5.36	LCS	P	0 - 30
LFB	Malathion	0.264	LCS	P	0 - 30
LFB	Metaxyl	3.81	LCS	P	0 - 30
LFB	Metolachlor	5.19	LCS	P	0 - 30
LFB	Metribuzin	10.6	LCS	P	0 - 30
LFB	Mevinphos	4.56	LCS	P	0 - 30
LFB	Molinate	15.4	LCS	P	0 - 30
LFB	Norflurazon	3.94	LCS	P	0 - 30
LFB	Parathion Ethyl	4.94	LCS	P	0 - 30
LFB	Parathion Methyl	1.31	LCS	P	0 - 30
LFB	Pendimethalin	5.78	LCS	P	0 - 30
LFB	Phorate	11.2	LCS	P	0 - 30
LFB	Prometon	2.51	LCS	P	0 - 30
LFB	Prometryn	3.32	LCS	P	0 - 30
LFB	Simazine	2.58	LCS	P	0 - 30
LFB	Terbufos	8.35	LCS	P	0 - 30
LFB	Terbuthylazine	5.01	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270D

Batch ID: P346580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998576	Aldrin	2.15	Spike	P	0 - 30
1998576	Alpha-BHC	4.43	Spike	P	0 - 30
1998576	Alpha-Chlordane	3.92	Spike	P	0 - 30
1998576	Beta-BHC	0.446	Spike	P	0 - 30
1998576	Carbophenothion	5.83	Spike	P	0 - 30
1998576	Chlorothalonil	10.6	Spike	P	0 - 30
1998576	Cypermethrin	11.7	Spike	P	0 - 30
1998576	DDD-p,p'	2.15	Spike	P	0 - 30
1998576	DDE-p,p'	4.92	Spike	P	0 - 30
1998576	DDT-p,p'	1.76	Spike	P	0 - 30
1998576	Delta-BHC	12.1	Spike	P	0 - 30
1998576	Dicofol	7.96	Spike	P	0 - 30
1998576	Dieldrin	9.00	Spike	P	0 - 30
1998576	Endosulfan I	5.29	Spike	P	0 - 30
1998576	Endosulfan II	17.2	Spike	P	0 - 30
1998576	Endosulfan Sulfate	2.04	Spike	P	0 - 30
1998576	Endrin	2.90	Spike	P	0 - 30
1998576	Endrin Aldehyde	5.53	Spike	P	0 - 30
1998576	Endrin Ketone	1.63	Spike	P	0 - 30
1998576	Gamma-BHC	0.102	Spike	P	0 - 30
1998576	Gamma-Chlordane	3.07	Spike	P	0 - 30
1998576	Heptachlor	6.11	Spike	P	0 - 30
1998576	Heptachlor Epoxide	3.06	Spike	P	0 - 30
1998576	Methoxychlor	3.53	Spike	P	0 - 30
1998576	Mirex	1.54	Spike	P	0 - 30
1998576	Permethrin	2.84	Spike	P	0 - 30
1998576	Trifluralin	1.42	Spike	P	0 - 30
LFB	Aldrin	5.40	LCS	P	0 - 30
LFB	Alpha-BHC	9.99	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.26	LCS	P	0 - 30
LFB	Beta-BHC	2.37	LCS	P	0 - 30
LFB	Carbophenothion	5.53	LCS	P	0 - 30
LFB	Chlorothalonil	24.5	LCS	P	0 - 30
LFB	Cypermethrin	4.98	LCS	P	0 - 30
LFB	DDD-p,p'	9.16	LCS	P	0 - 30
LFB	DDE-p,p'	13.1	LCS	P	0 - 30
LFB	DDT-p,p'	7.92	LCS	P	0 - 30
LFB	Delta-BHC	11.8	LCS	P	0 - 30
LFB	Dicofol	5.26	LCS	P	0 - 30
LFB	Dieldrin	20.4	LCS	P	0 - 30
LFB	Endosulfan I	1.37	LCS	P	0 - 30
LFB	Endosulfan II	6.47	LCS	P	0 - 30
LFB	Endosulfan Sulfate	8.63	LCS	P	0 - 30
LFB	Endrin	10.3	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.8	LCS	P	0 - 30
LFB	Endrin Ketone	5.88	LCS	P	0 - 30
LFB	Gamma-BHC	1.28	LCS	P	0 - 30
LFB	Gamma-Chlordane	7.95	LCS	P	0 - 30
LFB	Heptachlor	0.490	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.53	LCS	P	0 - 30
LFB	Methoxychlor	0.731	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P346580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	9.15	LCS	P	0 - 30
LFB	Permethrin	7.93	LCS	P	0 - 30
LFB	Trifluralin	3.43	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P346580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlordane	13.5	LCS	P	0 - 30
LFB	Toxaphene	5.31	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P346468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998021	Acesulfame K	8.46	Spike	P	0 - 30
1998021	AMPA	2.24	Spike	P	0 - 30
1998021	Endothall	8.19	Spike	P	0 - 30
1998021	Glufosinate	12.9	Spike	P	0 - 30
1998021	Glyphosate	6.40	Spike	P	0 - 30
1998021	Sucralose	1.34	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P346478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998022	3-Hydroxycarbofuran	1.53	Spike	P	0 - 30
1998022	Aldicarb	25.1	Spike	P	0 - 30
1998022	Aldicarb Sulfone	9.29	Spike	P	0 - 30
1998022	Aldicarb Sulfoxide	1.75	Spike	P	0 - 30
1998022	Carbaryl	8.68	Spike	P	0 - 30
1998022	Carbofuran	20.0	Spike	P	0 - 30
1998022	Methiocarb	16.0	Spike	P	0 - 30
1998022	Methomyl	6.67	Spike	P	0 - 30
1998022	Oxamyl	12.3	Spike	P	0 - 30
1998022	Propoxur	0.754	Spike	P	0 - 30
1998146	2,4-D	9.61	Spike	P	0 - 30
1998146	Acetaminophen	11.7	Spike	P	0 - 30
1998146	Bentazon	13.0	Spike	P	0 - 30
1998146	Carbamazepine	8.72	Spike	P	0 - 30
1998146	Diuron	1.72	Spike	P	0 - 30
1998146	Fenuron	8.73	Spike	P	0 - 30
1998146	Fluridone	2.33	Spike	P	0 - 30
1998146	Hydrocodone	1.02	Spike	P	0 - 30
1998146	Imazapyr	7.02	Spike	P	0 - 30
1998146	Imidacloprid	14.6	Spike	P	0 - 30
1998146	Linuron	1.49	Spike	P	0 - 30
1998146	MCP	0.875	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P346478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998146	Primidone	4.07	Spike	P	0 - 30
1998146	Pyraclostrobin	3.79	Spike	P	0 - 30
1998146	Triclopyr	7.72	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P346501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998112	Color (true)	0.576	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P346503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998236	Color (true)	4.38	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P346505

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997716	Color (true)	1.64	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P346670

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997945	Total Alkalinity	0.723	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P346671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997983	Total Alkalinity	0.781	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P346910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998168	Total Alkalinity	0.182	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P347011

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

Reference Method: SM 2540 C-97
 Batch ID: P347011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997364	TDS	2.29	Sample	P	0 - 10

Reference Method: SM 2540 C-97
 Batch ID: P347015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998168	TDS	2.99	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P346673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997945	Fluoride	0.513	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
 Batch ID: P346674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997983	Fluoride	0.946	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
 Batch ID: P346911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998168	Fluoride	0.506	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P346789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998063	Organic Carbon	0.319	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: 1998143
Field Sample ID: G1WA0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	137	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	114	P	30 - 160
EPA 8321B	Diuron-d6	61.5	P	30 - 160
EPA 8321B	Primidone-d5	128	P	30 - 160
EPA 8321B	Sucralose-d6	84.0	P	40 - 160

Lab Sample ID: 1998144
Field Sample ID: G1WA0034_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.4	P	30 - 160
EPA 8321B	Diuron-d6	59.3	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	86.9	P	40 - 160

Lab Sample ID: 1998145
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	30.8	P	30 - 160

Lab Sample ID: 1998146
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.4	P	30 - 160
EPA 8321B	Diuron-d6	41.7	P	30 - 160
EPA 8321B	Endothall-d6	59.6	P	50 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	40 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	88.7	P	40 - 160

Lab Sample ID: 1998147
Field Sample ID: Blank_0606018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	142	P	30 - 160
EPA 8321B	Diuron-d6	94.2	P	30 - 160
EPA 8321B	Endothall-d6	121	P	50 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	40 - 160
EPA 8321B	Primidone-d5	83.8	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1998148
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	64.4	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	47.7	P	34 - 101
EPA 8276	Decachlorobiphenyl	55.1	P	31 - 108
EPA 8276	PCNB	90.1	P	62 - 142

Lab Sample ID: 1998149
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	91.5	P	71 - 126
EPA 8270D	Terbufos-d10	114	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A84395

Included Lab Sample IDs: 1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115
Color (true)	101	100	P/P	90 - 115
Color (true)	102	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A84396

Included Lab Sample IDs: 1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A84413

Included Lab Sample IDs: 1998119, 1998120, 1998121, 1998122, 1998123, 1998124, 1998127

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A84472

Included Lab Sample IDs: 1998150, 1998151, 1998152, 1998153, 1998154, 1998155, 1998156

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.0	99.2	P/P	90 - 110
Calcium	99.2	98.4	P/P	90 - 110
Calcium	99.6	97.0	P/P	90 - 110
Iron	98.0	98.2	P/P	90 - 110
Iron	98.6	98.0	P/P	90 - 110
Iron	99.2	98.6	P/P	90 - 110
Magnesium	100	99.4	P/P	90 - 110
Magnesium	99.4	98.6	P/P	90 - 110
Magnesium	99.4	99.4	P/P	90 - 110
Potassium	99.0	99.3	P/P	90 - 110
Potassium	99.3	99.7	P/P	90 - 110
Potassium	99.7	99.0	P/P	90 - 110
Sodium	99.2	99.8	P/P	90 - 110
Sodium	99.8	99.2	P/P	90 - 110
Sodium	99.8	101	P/P	90 - 110
Zinc	99.3	97.9	P/P	90 - 110
Zinc	99.4	99.3	P/P	90 - 110
Zinc	99.5	99.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A84488

Included Lab Sample IDs: 1998143, 1998144, 1998146, 1998147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.6	90.2	P/P	50 - 150
2,4-D	90.2	86.4	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A84488

Included Lab Sample IDs: 1998145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	125	119	P/P	50 - 150
Acetaminophen	137	136	P/P	60 - 150
Acetaminophen	149	137	P/P	60 - 150
Aldicarb	101	91.5	P/P	60 - 150
Aldicarb Sulfone	112	105	P/P	50 - 150
Aldicarb Sulfoxide	98.2	92.0	P/P	50 - 150
Bentazon	104	114	P/P	50 - 150
Bentazon	108	104	P/P	50 - 150
Carbamazepine	131	91.5	P/P	60 - 150
Carbamazepine	146	131	P/P	60 - 150
Carbaryl	108	97.2	P/P	60 - 150
Carbofuran	121	122	P/P	50 - 150
Diuron	125	127	P/P	60 - 150
Diuron	127	133	P/P	60 - 150
Fenuron	106	111	P/P	60 - 150
Fenuron	111	105	P/P	60 - 150
Fluridone	136	141	P/P	60 - 160
Fluridone	139	136	P/P	60 - 160
Hydrocodone	105	111	P/P	60 - 150
Hydrocodone	111	120	P/P	60 - 150
Imazapyr	104	98.3	P/P	50 - 150
Imazapyr	98.3	108	P/P	50 - 150
Imidacloprid	109	117	P/P	60 - 150
Imidacloprid	120	109	P/P	60 - 150
Linuron	125	142	P/P	60 - 150
Linuron	142	137	P/P	60 - 150
MCPP	92.6	88.4	P/P	50 - 150
MCPP	95.0	92.6	P/P	50 - 150
Methiocarb	143	142	P/P	50 - 150
Methomyl	102	104	P/P	50 - 150
Oxamyl	103	111	P/P	50 - 150
Primidone	125	135	P/P	60 - 150
Primidone	135	131	P/P	60 - 150
Propoxur	107	122	P/P	50 - 150
Pyraclostrobin	133	124	P/P	60 - 150
Pyraclostrobin	136	133	P/P	60 - 150
Triclopyr	97.9	88.9	P/P	50 - 160
Triclopyr	98.9	97.9	P/P	50 - 160

Reference Method: SM 2320 B-97

Run ID: A84489

Included Lab Sample IDs: 1998107, 1998108, 1998109, 1998110, 1998111

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.5	P/P	90 - 110
Total Alkalinity	99.5	101	P/P	90 - 110
Total Alkalinity	99.6	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A84489

Included Lab Sample IDs: 1998107, 1998108, 1998109, 1998110, 1998111

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	90 - 110
Fluoride	99.0	100	P/P	90 - 110
Fluoride	99.5	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A84493

Included Lab Sample IDs: 1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A84497

Included Lab Sample IDs: 1998150, 1998151, 1998152, 1998153, 1998154, 1998155, 1998156

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	99.5	P/P	90 - 110
Arsenic	99.1	100	P/P	90 - 110
Arsenic	99.5	99.1	P/P	90 - 110
Cadmium	98.7	99.5	P/P	90 - 110
Cadmium	98.9	98.7	P/P	90 - 110
Cadmium	99.7	98.9	P/P	90 - 110
Chromium	101	99.9	P/P	90 - 110
Chromium	102	101	P/P	90 - 110
Chromium	99.9	101	P/P	90 - 110
Copper	97.7	97.6	P/P	90 - 110
Copper	97.7	97.7	P/P	90 - 110
Copper	99.0	97.7	P/P	90 - 110
Lead	98.1	97.4	P/P	90 - 110
Nickel	97.8	97.4	P/P	90 - 110
Nickel	97.9	97.8	P/P	90 - 110
Nickel	98.9	97.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A84498

Included Lab Sample IDs: 1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	99.3	P/P	90 - 110
Chloride	105	102	P/P	90 - 110
Sulfate	102	96.7	P/P	90 - 110
Sulfate	108	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A84525

Included Lab Sample IDs: 1998143, 1998144, 1998146, 1998147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	119	77.1	P/P	60 - 160
AMPA	106	107	P/P	60 - 160
Endothall	108	99.4	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A84525

Included Lab Sample IDs: 1998143, 1998144, 1998146, 1998147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glufosinate	98.4	98.1	P/P	60 - 160
Glyphosate	105	98.6	P/P	60 - 160
Sucralose	102	106	P/P	60 - 160
Sucralose	81.6	102	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A84530

Included Lab Sample IDs: 1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.1	96.8	P/P	90 - 110
Organic Carbon	96.8	97.6	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A84584

Included Lab Sample IDs: 1998148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	99.0		P	80 - 120
Beta-BHC	92.0		P	80 - 120
Carbophenothion	89.4		P	80 - 120
Chlorothalonil	94.4		P	80 - 120
Cypermethrin	94.9		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	99.4		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	93.2		P	80 - 120
Dieldrin	106		P	80 - 120
Endosulfan I	97.9		P	80 - 120
Endosulfan II	95.1		P	80 - 120
Endosulfan Sulfate	96.2		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	96.7		P	80 - 120
Endrin Ketone	95.8		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	96.9		P	80 - 120
Heptachlor	100		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Methoxychlor	105		P	80 - 120
Mirex	94.9		P	80 - 120
Permethrin	93.0		P	80 - 120
Trifluralin	98.4		P	80 - 120

Reference Method: SM 2320 B-97

Run ID: A84586

Included Lab Sample IDs: 1998112, 1998125

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

Reference Method: SM 2320 B-97

Run ID: A84586

Included Lab Sample IDs: 1998112, 1998125

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

Reference Method: SM 4500 F-C-97

Run ID: A84586

Included Lab Sample IDs: 1998112, 1998125

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	99.0	P/P	90 - 110
Fluoride	97.6	97.2	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A84612

Included Lab Sample IDs: 1998149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.9		P	80 - 120
Alachlor	96.4		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	98.1		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	97.9		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	96.1		P	80 - 120
Chlorpyrifos Methyl	96.3		P	80 - 120
Cyanazine	94.9		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	97.0		P	80 - 120
Disulfoton	95.2		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	94.4		P	80 - 120
Ethoprop	98.8		P	80 - 120
Fenamiphos	93.7		P	80 - 120
Fipronil	95.7		P	80 - 120
Fipronil Sulfide	95.5		P	80 - 120
Fipronil Sulfone	96.8		P	80 - 120
Fonofos	97.2		P	80 - 120
Hexazinone	95.2		P	80 - 120
Malathion	97.6		P	80 - 120
Metaxyl	97.6		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	98.9		P	80 - 120
Mevinphos	94.9		P	80 - 120
Molinate	93.9		P	80 - 120
Norflurazon	96.6		P	80 - 120
Parathion Ethyl	94.2		P	80 - 120
Parathion Methyl	94.9		P	80 - 120
Pendimethalin	101		P	80 - 120
Phorate	97.2		P	80 - 120
Prometon	98.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A84612

Included Lab Sample IDs: 1998149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometryn	96.3		P	80 - 120
Simazine	94.7		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbutylazine	97.8		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A84621

Included Lab Sample IDs: 1998113, 1998114, 1998115, 1998116, 1998117, 1998118

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

Reference Method: EPA 8276

Run ID: A84649

Included Lab Sample IDs: 1998148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.0		P	80 - 120
Toxaphene	98.3		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A84650

Included Lab Sample IDs: 1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	104	P/P	90 - 110
Ammonia-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A84663

Included Lab Sample IDs: 1998126

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A84664

Included Lab Sample IDs: 1998150, 1998151, 1998152, 1998153, 1998154, 1998155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	98.8	99.4	P/P	90 - 110
Lead	99.4	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A84737

Included Lab Sample IDs: 1998114, 1998115, 1998116, 1998117, 1998118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	98.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A84737

Included Lab Sample IDs: 1998114, 1998115, 1998116, 1998117, 1998118

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A84748

Included Lab Sample IDs: 1998113

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	108	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A84822

Included Lab Sample IDs: 1998150, 1998151, 1998152, 1998153, 1998154, 1998155, 1998156

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	102	94.6	P/P	90 - 110
Silver	94.6	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A84827

Included Lab Sample IDs: 1998126

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

* 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						2.36	
	Turbidity						7.04	
EPA 200.7 Rev. 4.4	Calcium	101		102	100			1.15
	Iron	104		106	103	104		1.02
	Magnesium	102		101	100			1.54
	Potassium	102		108	103	104		1.62
	Sodium	106		109	102	105		1.16
	Zinc	101		105	97.4	98.8		1.41
EPA 200.8 Rev. 5.4	Arsenic	102		101	102	101		0.943
	Cadmium	101		101	101	100		1.16
	Chromium	100		99.3	102	101		0.432
	Copper	97.7		95.3	95.0	94.5		0.551
	Lead	97.1		97.9	98.2	96.8		1.40
	Lead	98.5		101	101	99.3		0.511
	Nickel	100		98.6	97.6	97.5		0.179
	Silver	95.2		103	104	104		0.247
EPA 300.0 Rev. 2.1	Chloride	96.8		98.7	93.9		2.54	
	Sulfate	94.5		98.5			3.27	
EPA 350.1 Rev. 2.0	Ammonia-N	103		103	103			0.386
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105						1.91
	Kjeldahl Nitrogen	102		92.9	94.7			1.49
	Kjeldahl Nitrogen	106		93.3	94.0			0.416
EPA 353.2 Rev. 2.0	NO2NO3-N	101		98.5	98.5			0.0
EPA 365.1 Rev. 2.0	Total-P	95.6		99.0	99.7			0.527
	Total-P	96.7		97.5	96.5			0.890
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104						0.444
	O-Phosphate-P	100		97.4	97.7			0.241
EPA 8270D	Acetochlor	99.5	101	89.0	94.7	1.62		6.20
	Alachlor	95.8	90.2	82.6	89.0	5.94		7.52
	Aldrin	52.3	55.2	64.2	62.8	5.40		2.15
	Alpha-BHC	85.8	94.8	94.7	98.9	9.99		4.43
	Alpha-Chlordane	83.8	91.0	96.1	92.4	8.26		3.92
	Ametryn	94.9	114	122	109	18.5		11.2
	Atrazine	96.6	102			5.90		5.54
	Atrazine Desethyl	101	112			10.5		10.2
	Azinphos Methyl	102	111	94.3	90.4	8.56		4.23
	Beta-BHC	108	105	102	101	2.37		0.446
	Bromacil	91.0	90.6			0.422		5.03
	Butylate	62.6	65.4	59.3	69.6	4.27		15.9
	Carbophenothion	83.4	88.1	94.6	89.2	5.53		5.83
	Chlorothalonil	71.1	91.0	105	94.3	24.5		10.6
	Chlorpyrifos Ethyl	82.8	87.3	84.5	93.1	5.26		9.69
	Chlorpyrifos Methyl	91.7	96.0	84.4	88.3	4.61		4.54
	Cyanazine	140	154	96.6	101	9.08		4.29
	Cypermethrin	83.9	88.2	95.6	85.0	4.98		11.7
	DDD-p,p'	99.8	109	108	106	9.16		2.15
	DDE-p,p'	86.1	98.2	95.7	91.1	13.1		4.92
	DDT-p,p'	90.5	97.9	97.7	96.0	7.92		1.76
	Delta-BHC	111	125	131	147	11.8		12.1
	Demeton	77.2	73.1	103	105	5.48		2.65
	Diazinon	110	103	105	111	6.71		5.40
	Dicofol	110	104	103	111	5.26		7.96
	Dieldrin	84.2	103	95.7	105	20.4		9.00
	Disulfoton	87.1	82.3	101	105	5.67		3.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Endosulfan I	96.5	97.9	109	103	1.37		5.29
	Endosulfan II	105	112	120	101	6.47		17.2
	Endosulfan Sulfate	95.3	104	107	105	8.63		2.04
	Endrin	92.9	83.8	111	114	10.3		2.90
	Endrin Aldehyde	95.7	108	98.1	104	11.8		5.53
	Endrin Ketone	93.1	98.7	114	112	5.88		1.63
	EPTC	61.0	60.8	51.9	65.0	0.442		22.5
	Ethion	55.9	67.7	24.8	41.9	19.1		51.5
	Ethoprop	83.2	68.3	75.3	73.7	19.7		2.23
	Fenamiphos	86.6	77.3	59.8	57.6	11.4		3.81
	Fipronil	95.8	98.0	82.7	85.0	2.24		2.70
	Fipronil Sulfide	83.4	86.0	81.5	94.1	3.16		14.3
	Fipronil Sulfone	76.3	76.2	69.5	74.8	0.0754		7.43
	Fonofos	96.6	105	107	112	8.22		3.89
	Gamma-BHC	99.4	101	110	110	1.28		0.102
	Gamma-Chlordane	81.2	88.0	91.9	89.1	7.95		3.07
	Heptachlor	68.7	69.0	79.0	74.3	0.490		6.11
	Heptachlor Epoxide	85.4	92.1	98.9	95.9	7.53		3.06
	Hexazinone	97.1	102	101	104	5.36		1.78
	Malathion	88.3	88.0	86.7	85.9	0.264		0.891
	Metalaxyl	94.6	98.3			3.81		9.02
	Methoxychlor	106	106	112	116	0.731		3.53
	Metolachlor	90.1	94.9			5.19		2.95
	Metribuzin	147	132	149	150	10.6		0.571
	Mevinphos	88.7	92.8	101	112	4.56		10.4
	Mirex	72.2	79.1	78.2	77.0	9.15		1.54
	Molinate	58.2	67.9	47.9	54.6	15.4		13.1
	Norflurazon	91.2	94.9			3.94		9.92
	Parathion Ethyl	92.2	96.8	97.3	108	4.94		10.8
	Parathion Methyl	103	104	110	118	1.31		7.72
	Pendimethalin	108	115	122	130	5.78		5.77
	Permethrin	81.1	87.8	85.4	87.9	7.93		2.84
	Phorate	80.3	89.8	104	107	11.2		3.06
	Prometon	86.3	84.1	59.5	82.5	2.51		32.3
	Prometryn	91.8	95.0	84.5	90.0	3.32		6.29
	Simazine	96.9	99.5			2.58		11.7
	Terbufos	93.7	102	115	117	8.35		2.20
	Terbutylazine	94.4	99.2	94.3	97.2	5.01		2.93
	Trifluralin	83.4	86.3	88.0	86.7	3.43		1.42
EPA 8276	Chlordane	87.6	100	104		13.5		
	Toxaphene	77.3	81.5	85.2		5.31		
EPA 8321B	2,4-D	88.9		55.0	68.1			9.61
	3-Hydroxycarbofuran	97.1		67.3	66.3			1.53
	Acesulfame K	109		136	125			8.46
	Acetaminophen	114		101	114			11.7
	Aldicarb	71.7		32.5	41.8			25.1
	Aldicarb Sulfone	99.3		71.1	64.8			9.29
	Aldicarb Sulfoxide	86.4		28.3	28.8			1.75
	AMPA	96.8		97.7	93.1			2.24
	Bentazon	86.5		59.5	67.8			13.0
	Carbamazepine	103		61.7	67.3			8.72
	Carbaryl	60.1		33.8	36.9			8.68
	Carbofuran	79.3		45.0	55.0			20.0
	Diuron	74.5		43.4	44.9			1.72

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Endothall	99.9	75.0	69.1			8.19
	Fenuron	107	73.9	80.6			8.73
	Fluridone	88.5	67.4	65.8			2.33
	Glufosinate	96.3	120	137			12.9
	Glyphosate	105	83.1	95.3			6.40
	Hydrocodone	97.6	92.1	93.0			1.02
	Imazapyr	87.9	91.2	102			7.02
	Imidacloprid	123	160	188			14.6
	Linuron	77.4	53.0	52.2			1.49
	MCPP	91.5	108	109			0.875
	Methiocarb	81.4	57.2	67.2			16.0
	Methomyl	92.7	54.2	57.9			6.67
	Oxamyl	93.8	59.4	67.2			12.3
	Primidone	105	118	123			4.07
	Propoxur	86.8	47.3	47.0			0.754
	Pyraclostrobin	97.2	59.0	56.8			3.79
	Sucralose	82.3	83.8	82.7			1.34
	Triclopyr	93.4	105	113			7.72
SM 2120 B	Color (true)					0.576	
	Color (true)					4.38	
	Color (true)					1.64	
SM 2320 B-97	Total Alkalinity	104				0.723	
	Total Alkalinity	103				0.781	
	Total Alkalinity	100				0.182	
SM 2540 C-97	TDS					2.29	
	TDS					2.99	
SM 4500 F-C-97	Fluoride	95.9	98.5	97.7			0.513
	Fluoride	97.3	97.0	98.5			0.946
	Fluoride	96.2	98.2	97.5			0.506
SM 5310 B-00	Organic Carbon	96.8					0.319

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1998150, 1998151, 1998152, 1998153, 1998154, 1998155, 1998156
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1998150, 1998151, 1998152, 1998153, 1998154, 1998155, 1998156
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1998119, 1998120, 1998121, 1998122, 1998123, 1998124, 1998127
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1998148

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1998149
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1998148
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1998145
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1998143, 1998144, 1998146, 1998147
SM 2120 B / E31780	True Color measured at 450 nm	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1998113, 1998114, 1998115, 1998116, 1998117, 1998118, 1998126

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	06/06/2018			06/06/2018 17:13	William L. Brown IV	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
EPA 200.7 Rev. 4.4	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 20:51	Betina Topolski	1998156
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 22:22	Betina Topolski	1998150
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 22:30	Betina Topolski	1998151
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 22:51	Betina Topolski	1998152
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 23:22	Betina Topolski	1998153
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 23:48	Betina Topolski	1998154
EPA 200.8 Rev. 5.4	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/08/2018 23:55	Betina Topolski	1998155
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 15:10	Nadine Brooks	1998156
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 17:44	Nadine Brooks	1998150
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 17:54	Nadine Brooks	1998151
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 19:01	Nadine Brooks	1998152
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 19:11	Nadine Brooks	1998153
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 19:40	Nadine Brooks	1998154
	06/06/2018	06/07/2018 18:15	Elliott D. Healy	06/11/2018 19:50	Nadine Brooks	1998155
	06/06/2018	06/14/2018 14:00	Elliott D. Healy	06/18/2018 18:40	Robert K Palmer	1998150
	06/06/2018	06/14/2018 14:00	Elliott D. Healy	06/18/2018 18:46	Robert K Palmer	1998151
	06/06/2018	06/14/2018 14:00	Elliott D. Healy	06/18/2018 19:08	Robert K Palmer	1998152
	06/06/2018	06/14/2018 14:00	Elliott D. Healy	06/18/2018 19:14	Robert K Palmer	1998153
	06/06/2018	06/14/2018 14:00	Elliott D. Healy	06/18/2018 19:20	Robert K Palmer	1998154
	06/06/2018	06/14/2018 14:00	Elliott D. Healy	06/18/2018 19:25	Robert K Palmer	1998155
	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 14:06	Robert K Palmer	1998156
	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 15:08	Robert K Palmer	1998150
	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 15:25	Robert K Palmer	1998151
	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 15:30	Robert K Palmer	1998152
	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 15:36	Robert K Palmer	1998153
	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 15:41	Robert K Palmer	1998154
EPA 300.0 Rev. 2.1	06/06/2018	06/21/2018 17:05	Elliott D. Healy	06/25/2018 15:47	Robert K Palmer	1998155
	06/06/2018			06/14/2018 05:32	Lipi Saha	1998107
	06/06/2018			06/14/2018 06:20	Lipi Saha	1998108
	06/06/2018			06/14/2018 06:56	Lipi Saha	1998109
	06/06/2018			06/14/2018 07:08	Lipi Saha	1998110
	06/06/2018			06/14/2018 07:20	Lipi Saha	1998111
	06/06/2018			06/14/2018 07:32	Lipi Saha	1998112
EPA 350.1 Rev. 2.0	06/06/2018			06/14/2018 07:44	Lipi Saha	1998125
	06/06/2018			06/15/2018 11:40	Ping Hua	1998113
	06/06/2018			06/15/2018 11:45	Ping Hua	1998114
	06/06/2018			06/15/2018 11:46	Ping Hua	1998115
	06/06/2018			06/15/2018 11:48	Ping Hua	1998116

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	06/06/2018			06/15/2018 11:49	Ping Hua	1998126
	06/06/2018			06/15/2018 11:57	Ping Hua	1998117
	06/06/2018			06/15/2018 11:58	Ping Hua	1998118
EPA 351.2 Rev. 2.0	06/06/2018	06/18/2018 15:30	Adrian Shelby	06/21/2018 11:43	Joseph Suarez	1998113
	06/06/2018	06/19/2018 11:10	Adrian Shelby	06/20/2018 15:16	Joseph Suarez	1998114
	06/06/2018	06/19/2018 11:10	Adrian Shelby	06/20/2018 15:18	Joseph Suarez	1998115
	06/06/2018	06/19/2018 11:10	Adrian Shelby	06/20/2018 15:19	Joseph Suarez	1998116
	06/06/2018	06/19/2018 11:10	Adrian Shelby	06/20/2018 15:26	Joseph Suarez	1998117
	06/06/2018	06/19/2018 11:10	Adrian Shelby	06/20/2018 15:28	Joseph Suarez	1998118
	06/06/2018	06/22/2018 10:30	Adrian Shelby	06/26/2018 09:53	Joseph Suarez	1998126
EPA 353.2 Rev. 2.0	06/06/2018			06/11/2018 12:53	Lauren Bottorf	1998126
	06/06/2018			06/11/2018 12:54	Lauren Bottorf	1998117
	06/06/2018			06/11/2018 12:55	Lauren Bottorf	1998118
	06/06/2018			06/11/2018 12:56	Lauren Bottorf	1998113
	06/06/2018			06/11/2018 12:57	Lauren Bottorf	1998114
	06/06/2018			06/11/2018 12:59	Lauren Bottorf	1998115
	06/06/2018			06/11/2018 13:00	Lauren Bottorf	1998116
EPA 365.1 Rev. 2.0	06/06/2018	06/13/2018 11:22	Sima Feizi	06/15/2018 12:00	Beverly Y. Sanders	1998114
	06/06/2018	06/13/2018 11:22	Sima Feizi	06/15/2018 12:13	Beverly Y. Sanders	1998113
	06/06/2018	06/13/2018 11:22	Sima Feizi	06/15/2018 12:14	Beverly Y. Sanders	1998115
	06/06/2018	06/13/2018 11:22	Sima Feizi	06/15/2018 12:23	Beverly Y. Sanders	1998116
	06/06/2018	06/13/2018 11:22	Sima Feizi	06/15/2018 12:24	Beverly Y. Sanders	1998117
	06/06/2018	06/13/2018 11:22	Sima Feizi	06/15/2018 12:26	Beverly Y. Sanders	1998118
	06/06/2018	06/13/2018 11:22	Sima Feizi	06/18/2018 11:09	Beverly Y. Sanders	1998126
EPA 365.1 Rev. 2.0 dissolved	06/06/2018			06/06/2018 17:06	Megan Treadwell	1998119
	06/06/2018			06/06/2018 17:10	Megan Treadwell	1998123
	06/06/2018			06/06/2018 17:31	Megan Treadwell	1998120
	06/06/2018			06/06/2018 17:32	Megan Treadwell	1998121
	06/06/2018			06/06/2018 17:33	Megan Treadwell	1998122
	06/06/2018			06/06/2018 17:34	Megan Treadwell	1998124
	06/06/2018			06/06/2018 17:35	Megan Treadwell	1998127
EPA 8270D	06/06/2018	06/08/2018 08:42	Rasheda Ghaffari	06/12/2018 16:26	Vandana T. Nagar	1998149
	06/06/2018	06/11/2018 09:00	Fe-Val Siddell	06/13/2018 20:45	Dinesh Mishra	1998148
EPA 8276	06/06/2018	06/11/2018 09:00	Fe-Val Siddell	06/15/2018 20:49	Dinesh Mishra	1998148
EPA 8321B	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/09/2018 20:56	Juyoung Kim	1998145
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/09/2018 23:15	Juyoung Kim	1998146
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/10/2018 05:35	Juyoung Kim	1998143
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/10/2018 06:10	Juyoung Kim	1998144
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/10/2018 06:45	Juyoung Kim	1998147
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/12/2018 13:47	Juyoung Kim	1998146

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/12/2018 20:08	Juyoung Kim	1998143
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/12/2018 20:42	Juyoung Kim	1998144
	06/06/2018	06/07/2018 12:00	Hoor Shaik	06/12/2018 21:17	Juyoung Kim	1998147
	06/06/2018	06/07/2018 16:00	Hoor Shaik	06/08/2018 03:45	Mohammad Ghaffari	1998143
	06/06/2018	06/07/2018 16:00	Hoor Shaik	06/08/2018 04:22	Mohammad Ghaffari	1998144
	06/06/2018	06/07/2018 16:00	Hoor Shaik	06/08/2018 04:40	Mohammad Ghaffari	1998146
	06/06/2018	06/07/2018 16:00	Hoor Shaik	06/08/2018 04:59	Mohammad Ghaffari	1998147
	06/06/2018	06/07/2018 16:00	Hoor Shaik	06/08/2018 22:43	Mohammad Ghaffari	1998146
	06/06/2018	06/07/2018 16:00	Hoor Shaik	06/08/2018 23:01	Mohammad Ghaffari	1998147
SM 2120 B	06/06/2018			06/06/2018 16:17	Julia Storbeck	1998112
	06/06/2018			06/06/2018 16:23	Julia Storbeck	1998110
	06/06/2018			06/06/2018 16:24	Julia Storbeck	1998111
	06/06/2018			06/06/2018 16:28	Julia Storbeck	1998125
	06/06/2018			06/06/2018 16:37	Julia Storbeck	1998107
	06/06/2018			06/06/2018 16:38	Julia Storbeck	1998108
	06/06/2018			06/06/2018 16:39	Julia Storbeck	1998109
SM 2320 B-97	06/06/2018			06/08/2018 03:48	Dale L. Simmons	1998111
	06/06/2018			06/08/2018 08:01	Dale L. Simmons	1998107
	06/06/2018			06/08/2018 08:32	Dale L. Simmons	1998108
	06/06/2018			06/08/2018 08:41	Dale L. Simmons	1998109
	06/06/2018			06/08/2018 08:51	Dale L. Simmons	1998110
	06/06/2018			06/13/2018 21:00	Dale L. Simmons	1998112
	06/06/2018			06/13/2018 21:43	Dale L. Simmons	1998125
SM 2540 C-97	06/06/2018			06/07/2018 17:38	Yijie Li	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 2540 D-97	06/06/2018			06/07/2018 17:38	Yijie Li	1998107, 1998108, 1998109, 1998110, 1998111, 1998112, 1998125
SM 4500 F-C-97	06/06/2018			06/08/2018 03:48	Dale L. Simmons	1998111
	06/06/2018			06/08/2018 08:01	Dale L. Simmons	1998107
	06/06/2018			06/08/2018 08:32	Dale L. Simmons	1998108
	06/06/2018			06/08/2018 08:41	Dale L. Simmons	1998109
	06/06/2018			06/08/2018 08:51	Dale L. Simmons	1998110
	06/06/2018			06/13/2018 21:00	Dale L. Simmons	1998112
	06/06/2018			06/13/2018 21:43	Dale L. Simmons	1998125
	06/06/2018			06/12/2018 09:09	Megan Treadwell	1998113
SM 5310 B-00	06/06/2018			06/12/2018 09:23	Megan Treadwell	1998114
	06/06/2018			06/12/2018 10:13	Megan Treadwell	1998115
	06/06/2018			06/12/2018 10:33	Megan Treadwell	1998116
	06/06/2018			06/12/2018 10:50	Megan Treadwell	1998117
	06/06/2018			06/12/2018 11:07	Megan Treadwell	1998118

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	06/06/2018			06/12/2018 11:24	Megan Treadwell	1998126