

Chemical Analysis Report

CEN-DIST-2018-02-13-02

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

Event Description: **Apopka-Beau / Lil Lk Harris X4 / Howey Height**
Request ID: **RQ-2018-02-12-55**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Michael Linger

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 13-MAR-2018 16:26

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

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Apopka Beauclair Canal @ 200m S of Lock

Collection Date/Time: 02/12/2018 09:27

Field ID: G1CE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966694	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P339890	
	EPA 300.0 Rev. 2.1	Chloride	40		mg Cl/L	P340127	
		Sulfate	12		mg SO4/L	P340132	
	SM 2120 B	Color (true)	54		PCU	P339870	
	SM 2320 B-97	Total Alkalinity	135		mg CaCO3/L	P340526	
	SM 2540 C-97	TDS	242	A	mg/L	P340332	
	SM 2540 D-97	TSS	3	I	mg/L	P340227	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P340530	
1966695	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P340318	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.4		mg N/L	P339967	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.043		mg N/L	P340367	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P340069	
	SM 5310 B-00	Organic Carbon	25		mg C/L	P340427	
1966696	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P339881	
1966783	EPA 200.7 Rev. 4.4	Calcium	43.1		mg/L	P339958	
		Iron	140		ug/L	P339958	
		Magnesium	16.0		mg/L	P339958	
		Potassium	9.6		mg/L	P339958	
		Sodium	19.9		mg/L	P339958	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P339958	
		Arsenic	3.04		ug/L	P339958	
		Cadmium	0.020	U	ug/L	P339958	
		Chromium	0.40	U	ug/L	P340360	
		Copper	0.57	I	ug/L	P339958	
		Lead	0.38		ug/L	P339958	
		Nickel	0.23	I	ug/L	P339958	
		Silver	0.066		ug/L	P340360	

Ref. Method and Comment:

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

Sample Location: Apopka Beauclair Canal @ 200m S of Lock

Collection Date/Time: 02/12/2018 09:27

Field ID: G1CE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966738	EPA 8321B	2,4-D	0.013		ug/L	P339874	MS
		Sucralose**	0.51		ug/L	P339742	
		Bentazon	0.0013	I	ug/L	P339874	MS
		MCP	0.0020	U	ug/L	P339874	MS
		Triclopyr**	0.0040	U	ug/L	P339874	MS
		Imidacloprid	0.0020	U	ug/L	P339874	
		Diuron	0.0020	U	ug/L	P339874	
		Pyraclostrobin**	0.0020	U	ug/L	P339874	
		Primidone**	0.0040	U	ug/L	P339874	
		Linuron	0.0040	U	ug/L	P339874	

Field ID: G1CE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966738	EPA 8321B	Acetaminophen**	0.0080	U	ug/L	P339874	
		Fenuron	0.0080	U	ug/L	P339874	
		Carbamazepine**	4.0E-04	U	ug/L	P339874	
		Fluridone**	5.7E-04	I	ug/L	P339874	
		Glyphosate**	0.10	U	ug/L	P339813	
		AMPA**	0.10	U	ug/L	P339813	
		Aldicarb	0.020	U	ug/L	P339874	
		Aldicarb Sulfone	0.0020	U	ug/L	P339874	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P339874	
		Carbaryl	0.0020	U	ug/L	P339874	
		Carbofuran	0.0020	U	ug/L	P339874	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P339874	
		Methiocarb	0.0020	U	ug/L	P339874	
		Methomyl	0.0020	U	ug/L	P339874	
1966739	EPA 8270D	Oxamyl	0.0020	U	ug/L	P339874	
		Propoxur	0.0020	U	ug/L	P339874	
		Aldrin	4.2	U	ng/L	P340189	
		Alpha-BHC	2.1	U	ng/L	P340189	
		Beta-BHC	4.2	U	ng/L	P340189	
		Delta-BHC	4.2	U	ng/L	P340189	
		Gamma-BHC	4.2	UJ	ng/L	P340189	RPD
		Carbophenothion	4.2	U	ng/L	P340189	
		Chlorothalonil	2.1	U	ng/L	P340189	
		Cypermethrin	21	U	ng/L	P340189	
		DDD-p,p'	3.2	U	ng/L	P340189	
		DDE-p,p'	3.2	U	ng/L	P340189	
		DDT-p,p'	3.2	U	ng/L	P340189	
		Dieldrin	4.2	U	ng/L	P340189	
1966747	EPA 8270D	Endosulfan I	4.2	U	ng/L	P340189	
		Endosulfan II	4.2	U	ng/L	P340189	
		Endosulfan Sulfate	2.1	U	ng/L	P340189	
		Endrin	2.1	U	ng/L	P340189	
		Endrin Aldehyde	2.1	U	ng/L	P340189	
		Heptachlor	1.6	U	ng/L	P340189	
		Heptachlor Epoxide	2.1	U	ng/L	P340189	
		Methoxychlor	4.2	U	ng/L	P340189	
		Mirex	2.1	U	ng/L	P340189	
		Permethrin	11	U	ng/L	P340189	
		Trifluralin	1.1	U	ng/L	P340189	
		Alpha-Chlordane	1.1	U	ng/L	P340189	
		Gamma-Chlordane	1.1	U	ng/L	P340189	
		Endrin Ketone	2.1	U	ng/L	P340189	
1966747	EPA 8276	Dicofol	32	U	ng/L	P340189	
		Chlordane**	2.6	U	ng/L	P340189	
		Toxaphene**	32	U	ng/L	P340189	

Field ID: G1CE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966748	EPA 8270D	Alachlor	0.24	U	ng/L	P340051	
		Ametryn	0.31	U	ng/L	P340051	MS
		Atrazine	9.5		ng/L	P340051	
		Atrazine Desethyl	1.4	U	ng/L	P340051	
		Azinphos Methyl	2.1	U	ng/L	P340051	
		Bromacil	0.99	IJ	ng/L	P340051	LCS
		Butylate	0.38	U	ng/L	P340051	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P340051	
		Chlorpyrifos Methyl	0.095	U	ng/L	P340051	MS
		Demeton	1.9	U	ng/L	P340051	MS
		Diazinon	0.12	U	ng/L	P340051	
		Disulfoton	0.48	U	ng/L	P340051	
		EPTC	1.2	U	ng/L	P340051	
		Ethion	0.14	U	ng/L	P340051	
		Ethoprop	0.095	U	ng/L	P340051	
		Fenamiphos	0.24	U	ng/L	P340051	RPD
		Fipronil	0.24	U	ng/L	P340051	
		Fipronil Sulfide	0.14	U	ng/L	P340051	
		Fipronil Sulfone	0.14	UJ	ng/L	P340051	CCV
		Hexazinone	0.48	U	ng/L	P340051	
		Malathion	0.33	U	ng/L	P340051	MS
		Metribuzin	0.19	U	ng/L	P340051	
		Mevinphos	0.48	UJ	ng/L	P340051	CCV, MS
		Molinate	0.29	U	ng/L	P340051	
		Norflurazon	0.48	U	ng/L	P340051	
		Pendimethalin	0.95	U	ng/L	P340051	
		Phorate	0.24	U	ng/L	P340051	
		Prometon	0.86	U	ng/L	P340051	
		Prometryn	0.19	U	ng/L	P340051	
		Simazine	0.48	U	ng/L	P340051	
		Terbufos	0.095	U	ng/L	P340051	
		Terbuthylazine	0.40	U	ng/L	P340051	
		Fonofos	0.19	U	ng/L	P340051	MS
		Metalaxyl	0.24	U	ng/L	P340051	
		Metolachlor	0.50	I	ng/L	P340051	
		Acetochlor	0.24	U	ng/L	P340051	
		Cyanazine	0.48	U	ng/L	P340051	
		Parathion Ethyl	0.24	U	ng/L	P340051	
		Parathion Methyl	0.24	U	ng/L	P340051	MS

Ref. Method and Comment:

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

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

Sample Location: Little Lake Harris @ 1000m SE of Center

Collection Date/Time: 02/12/2018 10:20

Field ID: G1CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966697	EPA 180.1 Rev. 2.0	Turbidity	2.2	A	NTU	P339891	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P340127	
		Sulfate	7.0		mg SO4/L	P340132	
	SM 2120 B	Color (true)	40		PCU	P339870	
	SM 2320 B-97	Total Alkalinity	85	A	mg CaCO3/L	P340526	
	SM 2540 C-97	TDS	153		mg/L	P340332	
	SM 2540 D-97	TSS	3	I	mg/L	P340227	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340530	
1966702	EPA 350.1 Rev. 2.0	Ammonia-N	0.25		mg N/L	P340318	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P339967	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P340367	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P340069	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340426	
1966707	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P339881	
1966784	EPA 200.7 Rev. 4.4	Calcium	31.6		mg/L	P339958	
		Iron	47	I	ug/L	P339958	
		Magnesium	6.72		mg/L	P339958	
		Potassium	3.1		mg/L	P339958	
		Sodium	11.1		mg/L	P339958	
		Zinc	5.0	U	ug/L	P339958	
	EPA 200.8 Rev. 5.4	Arsenic	1.08		ug/L	P339958	
		Cadmium	0.020	U	ug/L	P339958	
		Chromium	0.40	U	ug/L	P340360	
		Copper	0.42	I	ug/L	P339958	
		Lead	0.12	I	ug/L	P339958	
		Nickel	0.20	U	ug/L	P339958	
		Silver	0.010	U	ug/L	P340360	

Ref. Method and Comment:

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

Sample Location: Little Lake Harris @ 1000m SW of Center

Collection Date/Time: 02/12/2018 10:36

Field ID: G1CE0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966698	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P339891	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P340013	
		Sulfate	6.8		mg SO4/L	P340016	
	SM 2120 B	Color (true)	45		PCU	P339870	
	SM 2320 B-97	Total Alkalinity	86		mg CaCO3/L	P340526	
	SM 2540 C-97	TDS	144		mg/L	P340332	
	SM 2540 D-97	TSS	2	I	mg/L	P340227	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340530	
1966703	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P340318	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P339967	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.037		mg N/L	P340368	

Field ID: G1CE0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966703	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P340069	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340426	
1966708	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P339881	
1966785	EPA 200.7 Rev. 4.4	Calcium	31.1		mg/L	P339958	
		Iron	42	I	ug/L	P339958	
		Magnesium	6.77		mg/L	P339958	
		Potassium	3.0		mg/L	P339958	
		Sodium	10.7		mg/L	P339958	
		Zinc	5.0	U	ug/L	P339958	
	EPA 200.8 Rev. 5.4	Arsenic	1.04		ug/L	P339958	
		Cadmium	0.020	U	ug/L	P339958	
		Chromium	0.40	U	ug/L	P340360	
		Copper	0.27	I	ug/L	P339958	
		Lead	0.12	I	ug/L	P339958	
		Nickel	0.20	U	ug/L	P339958	
		Silver	0.010	U	ug/L	P340360	

Ref. Method and Comment:

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

Sample Location: Little Lake Harris @ 2500m S of Center

Collection Date/Time: 02/12/2018 10:46

Field ID: G1CE0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966699	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P339891	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P340013	
		Sulfate	6.9		mg SO4/L	P340016	
	SM 2120 B	Color (true)	46		PCU	P339870	
	SM 2320 B-97	Total Alkalinity	85		mg CaCO3/L	P340526	
	SM 2540 C-97	TDS	145		mg/L	P340332	
	SM 2540 D-97	TSS	2	I	mg/L	P340227	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340530	
1966704	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P340318	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P339967	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P340368	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P340069	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340426	
1966709	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P339881	
1966786	EPA 200.7 Rev. 4.4	Calcium	31.1		mg/L	P339958	
		Iron	57	I	ug/L	P339958	
		Magnesium	6.72		mg/L	P339958	
		Potassium	3.1		mg/L	P339958	
		Sodium	10.7		mg/L	P339958	
		Zinc	5.0	U	ug/L	P339958	
	EPA 200.8 Rev. 5.4	Arsenic	1.04		ug/L	P339958	
		Cadmium	0.020	U	ug/L	P339958	

Field ID: G1CE0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966786	EPA 200.8 Rev. 5.4	Chromium	0.40	U	ug/L	P340446	
		Copper	0.34	I	ug/L	P339958	
		Lead	0.12	I	ug/L	P339958	
		Nickel	0.20	U	ug/L	P339958	
		Silver	0.010	U	ug/L	P340446	

Ref. Method and Comment:

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

Sample Location: Double Run @ 800m DS of Double Run Rd.

Collection Date/Time: 02/12/2018 10:55

Field ID: G1CE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966700	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P339891	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P340013	
		Sulfate	6.2		mg SO4/L	P340016	
	SM 2120 B	Color (true)	180		PCU	P339870	
	SM 2320 B-97	Total Alkalinity	65		mg CaCO3/L	P340526	
	SM 2540 C-97	TDS	130		mg/L	P340333	
	SM 2540 D-97	TSS	2	U	mg/L	P340227	
	SM 4500 F-C-97	Fluoride	0.080	I	mg F/L	P340530	
1966705	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P340318	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P339967	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P340368	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P340069	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P340426	
1966710	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P339881	
1966787	EPA 200.7 Rev. 4.4	Calcium	22.2		mg/L	P339958	
		Iron	230		ug/L	P339958	
		Magnesium	7.81		mg/L	P339958	
		Potassium	2.2		mg/L	P339958	
		Sodium	5.9		mg/L	P339958	
		Zinc	5.0	U	ug/L	P339958	
	EPA 200.8 Rev. 5.4	Arsenic	0.55		ug/L	P339958	
		Cadmium	0.020	U	ug/L	P339958	
		Chromium	0.40	U	ug/L	P340446	
		Copper	0.20	U	ug/L	P339958	
		Lead	0.075	I	ug/L	P339958	
		Nickel	0.20	U	ug/L	P339958	
		Silver	0.010	U	ug/L	P340446	

Ref. Method and Comment:

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

Sample Location: Little Lake Harris @ Center

Collection Date/Time: 02/12/2018 10:28

Field ID: G1CE0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
-----------	-------------	-----------	--------	------	-------	----------	----------

Field ID: G1CE0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966701	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P339891	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P340013	
		Sulfate	6.8		mg SO4/L	P340016	
	SM 2120 B	Color (true)	41	A	PCU	P339871	
	SM 2320 B-97	Total Alkalinity	84		mg CaCO3/L	P340526	
	SM 2540 C-97	TDS	153		mg/L	P340333	
	SM 2540 D-97	TSS	3	I	mg/L	P340227	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340530	
1966706	EPA 350.1 Rev. 2.0	Ammonia-N	0.25		mg N/L	P340319	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P339967	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P340368	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P340069	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340426	
1966711	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P339881	
1966788	EPA 200.7 Rev. 4.4	Calcium	31.7		mg/L	P339958	
		Iron	43	I	ug/L	P339958	
		Magnesium	6.73		mg/L	P339958	
		Potassium	3.1		mg/L	P339958	
		Sodium	11.0		mg/L	P339958	
		Zinc	5.0	U	ug/L	P339958	
	EPA 200.8 Rev. 5.4	Arsenic	1.07		ug/L	P339958	
		Cadmium	0.020	U	ug/L	P339958	
		Chromium	0.40	U	ug/L	P340446	
		Copper	0.27	I	ug/L	P339958	
		Lead	0.13	I	ug/L	P339958	
		Nickel	0.20	U	ug/L	P339958	
		Silver	0.010	U	ug/L	P340446	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P339890

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P339891

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P339958

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P339958

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: P339958

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340360

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340446

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340013

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340016

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340127

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340132

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340318

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340319

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339967

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340367

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340368

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340069

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339881

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

Reference Method: EPA 8270D
Batch ID: P340051

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D

Batch ID: P340051

Component	Result	Code	Units
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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270D

Batch ID: P340189

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P340189

Component	Result	Code	Units
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: P340189

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

Reference Method: EPA 8321B
Batch ID: P339742

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P339813

Component	Result	Code	Units
AMPA	0.10	U	ug/L
Glyphosate	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P339874

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P339874

Component	Result	Code	Units
Fluridone	4.0E-04	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: P339870

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P339871

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P340526

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

Reference Method: SM 2540 C-97
Batch ID: P340332

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P340333

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340227

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P340530

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P340530

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340426

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

Reference Method: SM 5310 B-00
Batch ID: P340427

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: P339958

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	108		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	103		P	85 - 115
Sodium	101		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339958

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.8		P	85 - 115
Cadmium	102		P	85 - 115
Copper	99.7		P	85 - 115
Lead	104		P	85 - 115
Nickel	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	102		P	85 - 115
Silver	97.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	104		P	85 - 115
Silver	101		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340013

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340016

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340127

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340132

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340318

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340319

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339967

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	91.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340367

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340368

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P340069

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P339881

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

Reference Method: EPA 8270D
 Batch ID: P340051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	81.4	94.8	P/P	74 - 119
Alachlor	87.6	99.2	P/P	75 - 118
Ametryn	78.0	95.6	P/P	59 - 137
Atrazine	107	112	P/P	73 - 120
Atrazine Desethyl	97.6	95.2	P/P	19 - 129
Azinphos Methyl	147	164	P/P	65 - 181
Bromacil	32.8	32.3	F/F	43 - 123
Butylate	67.6	56.4	P/P	28 - 85.0
Chlorpyrifos Ethyl	91.6	95.2	P/P	55 - 112
Chlorpyrifos Methyl	106	118	P/P	35 - 124
Cyanazine	108	111	P/P	26 - 262
Demeton	84.6	80.9	P/P	43 - 122
Diazinon	96.5	96.6	P/P	72 - 120
Disulfoton	112	110	P/P	45 - 137
EPTC	67.7	54.8	P/P	28 - 95.0
Ethion	120	115	P/P	63 - 127
Ethoprop	104	100	P/P	63 - 109
Fenamiphos	106	97.2	P/P	66 - 136
Fipronil	95.3	94.6	P/P	63 - 126
Fipronil Sulfide	92.3	94.1	P/P	59 - 123
Fipronil Sulfone	88.6	89.6	P/P	56 - 122
Fonofos	111	111	P/P	64 - 114
Hexazinone	113	120	P/P	49 - 144
Malathion	121	115	P/P	68 - 131
Metaxyl	84.3	90.3	P/P	57 - 126
Metolachlor	95.2	91.8	P/P	75 - 118
Metribuzin	126	141	P/P	46 - 169
Mevinphos	93.4	89.0	P/P	34 - 126
Molinate	88.3	80.9	P/P	37 - 101
Norflurazon	80.9	84.7	P/P	63 - 127
Parathion Ethyl	92.5	95.6	P/P	78 - 109
Parathion Methyl	98.7	103	P/P	74 - 123
Pendimethalin	102	115	P/P	51 - 130
Phorate	110	109	P/P	53 - 116
Prometon	88.0	88.9	P/P	66 - 124
Prometryn	83.2	81.5	P/P	66 - 124
Simazine	124	113	P/P	62 - 134
Terbufos	108	108	P/P	59 - 115
Terbutylazine	96.9	105	P/P	76 - 113

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P340189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	56.2	58.2	P/P	24 - 89.0
Alpha-BHC	70.8	74.9	P/P	58 - 117
Alpha-Chlordane	72.6	75.5	P/P	56 - 115
Beta-BHC	92.9	91.1	P/P	55 - 137
Carbophenothion	72.6	79.9	P/P	37 - 145
Chlorothalonil	76.6	79.6	P/P	26 - 163
Cypermethrin	84.3	75.8	P/P	42 - 156
DDD-p,p'	89.1	87.3	P/P	59 - 129
DDE-p,p'	75.3	78.0	P/P	52 - 117
DDT-p,p'	78.8	75.8	P/P	48 - 128
Delta-BHC	99.5	102	P/P	59 - 158
Dicofol	78.0	69.8	P/P	19 - 124
Dieldrin	76.0	76.4	P/P	57 - 126
Endosulfan I	84.0	86.9	P/P	59 - 133
Endosulfan II	107	113	P/P	58 - 148
Endosulfan Sulfate	90.1	84.0	P/P	56 - 135
Endrin	77.7	75.5	P/P	50 - 140
Endrin Aldehyde	60.2	61.8	P/P	47 - 141
Endrin Ketone	86.1	82.5	P/P	63 - 123
Gamma-BHC	93.8	64.1	P/P	59 - 132
Gamma-Chlordane	71.7	73.9	P/P	55 - 112
Heptachlor	57.4	60.1	P/P	45 - 102
Heptachlor Epoxide	74.2	75.3	P/P	61 - 116
Methoxychlor	86.3	84.9	P/P	60 - 133
Mirex	66.0	62.4	P/P	40 - 98.0
Permethrin	82.8	78.8	P/P	45 - 131
Trifluralin	66.3	65.0	P/P	38 - 179

Reference Method: EPA 8276

Batch ID: P340189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	76.2	77.0	P/P	47 - 125
Toxaphene	106	95.5	P/P	46 - 147

Reference Method: EPA 8321B

Batch ID: P339742

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	111		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P339813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	106		P	40 - 150
Glyphosate	105		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P339874

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
 Batch ID: P339874

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	63.5		P	40 - 150
3-Hydroxycarbofuran	102		P	40 - 150
Acetaminophen	92.8		P	30 - 150
Aldicarb	81.7		P	30 - 150
Aldicarb Sulfone	93.4		P	40 - 150
Aldicarb Sulfoxide	93.4		P	40 - 150
Bentazon	73.9		P	30 - 150
Carbamazepine	73.3		P	40 - 150
Carbaryl	72.6		P	40 - 150
Carbofuran	73.4		P	40 - 150
Diuron	76.0		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	72.9		P	40 - 150
Imidacloprid	87.8		P	40 - 160
Linuron	75.5		P	40 - 150
MCPP	70.6		P	40 - 150
Methiocarb	69.8		P	40 - 150
Methomyl	96.8		P	40 - 150
Oxamyl	96.2		P	40 - 150
Primidone	88.3		P	40 - 150
Propoxur	67.5		P	40 - 150
Pyraclostrobin	67.8		P	40 - 150
Triclopyr	65.5		P	40 - 150

Reference Method: SM 2320 B-97
 Batch ID: P340526

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	95 - 108

Reference Method: SM 4500 F-C-97
 Batch ID: P340530

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

Reference Method: SM 5310 B-00
 Batch ID: P340426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P340427

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

Quality Assurance Report Matrix Spike Accuracy

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P339958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966594	Calcium	106		P	80 - 120
1966594	Iron	103		P	80 - 120
1966594	Magnesium	102		P	80 - 120
1966594	Potassium	98.0		P	80 - 120
1966594	Sodium	102		P	80 - 120
1966594	Zinc	97.8		P	80 - 120
1966787	Calcium	104		P	80 - 120
1966787	Iron	105	102	P/P	80 - 120
1966787	Magnesium	102		P	80 - 120
1966787	Potassium	101	100	P/P	80 - 120
1966787	Sodium	101		P	80 - 120
1966787	Zinc	97.9	96.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966594	Arsenic	99.0		P	80 - 120
1966594	Cadmium	105		P	80 - 120
1966594	Copper	99.7		P	80 - 120
1966594	Lead	105		P	80 - 120
1966594	Nickel	101		P	80 - 120
1966787	Arsenic	96.5	97.3	P/P	80 - 120
1966787	Cadmium	103	103	P/P	80 - 120
1966787	Copper	97.8	99.7	P/P	80 - 120
1966787	Lead	102	104	P/P	80 - 120
1966787	Nickel	99.2	109	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966594	Chromium	101		P	80 - 120
1966594	Silver	97.4		P	80 - 120
1966652	Chromium	98.1	97.1	P/P	80 - 120
1966652	Silver	95.9	95.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966788	Chromium	102	101	P/P	80 - 120
1966788	Silver	98.5	96.8	P/P	80 - 120
1967164	Chromium	97.9		P	80 - 120
1967164	Silver	94.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967006	Chloride	102		P	90 - 110
1967007	Chloride	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967006	Sulfate	103		P	90 - 110
1967007	Sulfate	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340127

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966643	Chloride	104		P	90 - 110
1966644	Chloride	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966643	Sulfate	105		P	90 - 110
1966644	Sulfate	108		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966705	Ammonia-N	101	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966766	Ammonia-N	98.1	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339967

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966704	Kjeldahl Nitrogen	101	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966645	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966703	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966706	Total-P	101	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966714	O-Phosphate-P	97.2	99.0	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P340051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967723	Acetochlor	90.3	93.3	P/P	67 - 125
1967723	Alachlor	81.4	96.0	P/P	69 - 123
1967723	Ametryn	51.9	66.5	F/P	52 - 151
1967723	Atrazine Desethyl	60.1	65.2	P/P	10 - 129
1967723	Azinphos Methyl	174	198	P/P	48 - 200
1967723	Bromacil	62.8	82.7	P/P	46 - 130
1967723	Butylate	62.6	59.0	P/P	10 - 85.0
1967723	Chlorpyrifos Ethyl	83.3	111	P/P	54 - 115
1967723	Chlorpyrifos Methyl	113	127	P/F	44 - 117
1967723	Cyanazine	103	124	P/P	10 - 262
1967723	Demeton	143	154	P/F	24 - 145
1967723	Diazinon	96.1	97.1	P/P	66 - 129
1967723	Disulfoton	101	98.4	P/P	45 - 139
1967723	EPTC	58.8	53.5	P/P	10 - 86.0
1967723	Ethion	99.6	123	P/P	59 - 133
1967723	Ethoprop	101	114	P/P	54 - 116
1967723	Fenamiphos	77.7	111	P/P	55 - 140
1967723	Fipronil	93.0	72.6	P/P	37 - 142
1967723	Fipronil Sulfide	87.4	76.8	P/P	37 - 130
1967723	Fonofos	107	124	P/F	55 - 118
1967723	Hexazinone	108	127	P/P	62 - 140
1967723	Malathion	118	135	P/F	64 - 132
1967723	Metalaxyl	87.7	86.9	P/P	55 - 129
1967723	Metolachlor	92.3	104	P/P	56 - 137
1967723	Metribuzin	145	146	P/P	16 - 218
1967723	Mevinphos	139	160	F/F	34 - 129
1967723	Molinate	87.3	86.7	P/P	16 - 99.0
1967723	Norflurazon	88.7	106	P/P	43 - 135
1967723	Parathion Ethyl	102	112	P/P	71 - 112
1967723	Parathion Methyl	143	143	F/F	65 - 127
1967723	Pendimethalin	114	106	P/P	35 - 159
1967723	Phorate	99.7	109	P/P	41 - 129
1967723	Prometon	87.0	95.5	P/P	56 - 140
1967723	Prometryn	71.2	77.7	P/P	65 - 130
1967723	Terbufos	103	104	P/P	53 - 126
1967723	Terbuthylazine	93.0	89.3	P/P	73 - 114

Reference Method: EPA 8270D
Batch ID: P340189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966228	Aldrin	65.2	57.9	P/P	26 - 96.0
1966228	Alpha-BHC	91.6	91.6	P/P	51 - 123
1966228	Alpha-Chlordane	80.1	73.3	P/P	45 - 120
1966228	Beta-BHC	92.9	99.3	P/P	43 - 146
1966228	Carbophenothion	81.2	81.9	P/P	26 - 179

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P340189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966228	Chlorothalonil	109	99.7	P/P	10 - 215
1966228	Cypermethrin	90.5	89.2	P/P	35 - 169
1966228	DDD-p,p'	89.7	85.9	P/P	49 - 131
1966228	DDE-p,p'	83.4	78.0	P/P	39 - 127
1966228	DDT-p,p'	92.3	88.0	P/P	49 - 120
1966228	Delta-BHC	117	128	P/P	49 - 187
1966228	Dicofol	84.5	78.7	P/P	10 - 129
1966228	Dieldrin	82.8	75.6	P/P	46 - 132
1966228	Endosulfan I	97.8	88.5	P/P	57 - 130
1966228	Endosulfan II	118	109	P/P	52 - 148
1966228	Endosulfan Sulfate	89.4	87.2	P/P	55 - 129
1966228	Endrin	86.0	80.0	P/P	45 - 133
1966228	Endrin Aldehyde	72.6	67.5	P/P	26 - 140
1966228	Endrin Ketone	95.5	92.6	P/P	60 - 125
1966228	Gamma-BHC	90.4	101	P/P	50 - 145
1966228	Gamma-Chlordane	78.0	71.8	P/P	44 - 118
1966228	Heptachlor	65.4	57.8	P/P	35 - 106
1966228	Heptachlor Epoxide	80.7	73.9	P/P	52 - 123
1966228	Methoxychlor	96.6	91.5	P/P	54 - 132
1966228	Mirex	78.5	73.8	P/P	36 - 107
1966228	Permethrin	92.1	87.6	P/P	47 - 135
1966228	Trifluralin	77.5	73.0	P/P	32 - 228

Reference Method: EPA 8276
Batch ID: P340189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966228	Chlordane	58.9	58.4	P/P	41 - 134
1966228	Toxaphene	71.4	72.1	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P339742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966475	Sucralose	143	145	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P339813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966342	AMPA	92.6	96.7	P/P	40 - 150
1966342	Glyphosate	97.3	93.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P339874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966576	2,4-D	38.1	40.6	F/P	40 - 150
1966576	3-Hydroxycarbofuran	105	103	P/P	40 - 150
1966576	Acetaminophen	120	114	P/P	30 - 150
1966576	Aldicarb	77.9	63.1	P/P	30 - 150
1966576	Aldicarb Sulfone	117	112	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P339874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966576	Aldicarb Sulfoxide	87.4	89.6	P/P	40 - 150
1966576	Bentazon	24.8	29.5	F/F	30 - 150
1966576	Carbamazepine	71.5	71.1	P/P	40 - 150
1966576	Carbaryl	53.6	53.2	P/P	40 - 150
1966576	Carbofuran	52.8	52.8	P/P	40 - 150
1966576	Diuron	58.3	62.4	P/P	40 - 150
1966576	Fenuron	88.5	83.6	P/P	40 - 150
1966576	Fluridone	60.2	60.1	P/P	40 - 150
1966576	Imidacloprid	135	131	P/P	40 - 160
1966576	Linuron	70.9	64.7	P/P	40 - 150
1966576	MCPP	32.2	40.5	F/P	40 - 150
1966576	Methiocarb	63.0	59.8	P/P	40 - 150
1966576	Methomyl	92.0	85.5	P/P	40 - 150
1966576	Oxamyl	88.4	87.8	P/P	40 - 150
1966576	Primidone	102	103	P/P	40 - 150
1966576	Propoxur	52.2	49.1	P/P	40 - 150
1966576	Pyraclostrobin	70.1	59.9	P/P	40 - 150
1966576	Triclopyr	34.8	38.5	F/F	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P340530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966697	Fluoride	97.2	96.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966668	Organic Carbon	111		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P340427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967650	Organic Carbon	95.3	96.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P339890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966643	Turbidity	0.913	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P339891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966697	Turbidity	1.84	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P339958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966787	Calcium	1.31	Spike	P	0 - 20
1966787	Iron	2.10	Spike	P	0 - 20
1966787	Magnesium	1.70	Spike	P	0 - 20
1966787	Potassium	0.578	Spike	P	0 - 20
1966787	Sodium	1.57	Spike	P	0 - 20
1966787	Zinc	1.74	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P339958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966787	Arsenic	0.836	Spike	P	0 - 20
1966787	Cadmium	0.0521	Spike	P	0 - 20
1966787	Copper	1.94	Spike	P	0 - 20
1966787	Lead	2.20	Spike	P	0 - 20
1966787	Nickel	9.20	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966652	Chromium	1.07	Spike	P	0 - 20
1966652	Silver	0.701	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966788	Chromium	0.356	Spike	P	0 - 20
1966788	Silver	1.77	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967006	Chloride	1.64	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967006	Sulfate	2.34	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966644	Chloride	2.81	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966644	Sulfate	2.91	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966705	Ammonia-N	2.71	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966766	Ammonia-N	0.0864	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966704	Kjeldahl Nitrogen	2.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966645	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966703	NO2NO3-N	0.406	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P340069

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966706	Total-P	1.70	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P339881

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966714	O-Phosphate-P	1.12	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P340051

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967723	Acetochlor	3.29	Spike	P	0 - 30
1967723	Alachlor	16.4	Spike	P	0 - 30
1967723	Ametryn	24.7	Spike	P	0 - 30
1967723	Atrazine	6.48	Spike	P	0 - 30
1967723	Atrazine Desethyl	6.00	Spike	P	0 - 30
1967723	Azinphos Methyl	13.1	Spike	P	0 - 30
1967723	Bromacil	20.5	Spike	P	0 - 30
1967723	Butylate	5.92	Spike	P	0 - 30
1967723	Chlorpyrifos Ethyl	28.7	Spike	P	0 - 30
1967723	Chlorpyrifos Methyl	11.9	Spike	P	0 - 30
1967723	Cyanazine	18.5	Spike	P	0 - 30
1967723	Demeton	7.03	Spike	P	0 - 30
1967723	Diazinon	1.05	Spike	P	0 - 30
1967723	Disulfoton	2.10	Spike	P	0 - 30
1967723	EPTC	9.53	Spike	P	0 - 30
1967723	Ethion	21.3	Spike	P	0 - 30
1967723	Ethoprop	11.6	Spike	P	0 - 30
1967723	Fenamiphos	35.4	Spike	F	0 - 30
1967723	Fipronil	14.7	Spike	P	0 - 30
1967723	Fipronil Sulfide	8.78	Spike	P	0 - 30
1967723	Fipronil Sulfone	15.9	Spike	P	0 - 30
1967723	Fonofos	15.2	Spike	P	0 - 30
1967723	Hexazinone	16.0	Spike	P	0 - 30
1967723	Malathion	13.7	Spike	P	0 - 30
1967723	Metalaxyl	0.975	Spike	P	0 - 30
1967723	Metolachlor	11.9	Spike	P	0 - 30
1967723	Metribuzin	0.613	Spike	P	0 - 30
1967723	Mevinphos	14.1	Spike	P	0 - 30
1967723	Molinate	0.691	Spike	P	0 - 30
1967723	Norflurazon	17.4	Spike	P	0 - 30
1967723	Parathion Ethyl	8.89	Spike	P	0 - 30
1967723	Parathion Methyl	0.121	Spike	P	0 - 30
1967723	Pendimethalin	7.70	Spike	P	0 - 30
1967723	Phorate	9.16	Spike	P	0 - 30
1967723	Prometon	9.31	Spike	P	0 - 30
1967723	Prometryn	8.80	Spike	P	0 - 30
1967723	Simazine	17.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P340051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967723	Terbufos	1.15	Spike	P	0 - 30
1967723	Terbutylazine	4.10	Spike	P	0 - 30
LFB	Acetochlor	15.2	LCS	P	0 - 30
LFB	Alachlor	12.4	LCS	P	0 - 30
LFB	Ametryn	20.3	LCS	P	0 - 30
LFB	Atrazine	4.11	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.58	LCS	P	0 - 30
LFB	Azinphos Methyl	11.4	LCS	P	0 - 30
LFB	Bromacil	1.35	LCS	P	0 - 30
LFB	Butylate	18.0	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.87	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	10.7	LCS	P	0 - 30
LFB	Cyanazine	3.31	LCS	P	0 - 30
LFB	Demeton	4.53	LCS	P	0 - 30
LFB	Diazinon	0.0362	LCS	P	0 - 30
LFB	Disulfoton	1.15	LCS	P	0 - 30
LFB	EPTC	21.1	LCS	P	0 - 30
LFB	Ethion	3.95	LCS	P	0 - 30
LFB	Ethoprop	3.42	LCS	P	0 - 30
LFB	Fenamiphos	8.47	LCS	P	0 - 30
LFB	Fipronil	0.773	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.98	LCS	P	0 - 30
LFB	Fipronil Sulfone	1.06	LCS	P	0 - 30
LFB	Fonofos	0.757	LCS	P	0 - 30
LFB	Hexazinone	5.96	LCS	P	0 - 30
LFB	Malathion	5.21	LCS	P	0 - 30
LFB	Metalaxyl	6.81	LCS	P	0 - 30
LFB	Metolachlor	3.56	LCS	P	0 - 30
LFB	Metribuzin	11.1	LCS	P	0 - 30
LFB	Mevinphos	4.79	LCS	P	0 - 30
LFB	Molinate	8.68	LCS	P	0 - 30
LFB	Norflurazon	4.70	LCS	P	0 - 30
LFB	Parathion Ethyl	3.33	LCS	P	0 - 30
LFB	Parathion Methyl	3.92	LCS	P	0 - 30
LFB	Pendimethalin	12.4	LCS	P	0 - 30
LFB	Phorate	1.22	LCS	P	0 - 30
LFB	Prometon	1.08	LCS	P	0 - 30
LFB	Prometryn	2.14	LCS	P	0 - 30
LFB	Simazine	8.94	LCS	P	0 - 30
LFB	Terbufos	0.233	LCS	P	0 - 30
LFB	Terbutylazine	8.48	LCS	P	0 - 30

Reference Method: EPA 8270D

Batch ID: P340189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966228	Aldrin	11.8	Spike	P	0 - 30
1966228	Alpha-BHC	0.0614	Spike	P	0 - 30
1966228	Alpha-Chlordane	8.93	Spike	P	0 - 30
1966228	Beta-BHC	6.72	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P340189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966228	Carbophenothion	0.863	Spike	P	0 - 30
1966228	Chlorothalonil	8.78	Spike	P	0 - 30
1966228	Cypermethrin	1.37	Spike	P	0 - 30
1966228	DDD-p,p'	4.41	Spike	P	0 - 30
1966228	DDE-p,p'	6.66	Spike	P	0 - 30
1966228	DDT-p,p'	4.70	Spike	P	0 - 30
1966228	Delta-BHC	8.82	Spike	P	0 - 30
1966228	Dicofol	7.06	Spike	P	0 - 30
1966228	Dieldrin	9.06	Spike	P	0 - 30
1966228	Endosulfan I	9.96	Spike	P	0 - 30
1966228	Endosulfan II	7.93	Spike	P	0 - 30
1966228	Endosulfan Sulfate	2.47	Spike	P	0 - 30
1966228	Endrin	7.24	Spike	P	0 - 30
1966228	Endrin Aldehyde	7.16	Spike	P	0 - 30
1966228	Endrin Ketone	3.06	Spike	P	0 - 30
1966228	Gamma-BHC	11.1	Spike	P	0 - 30
1966228	Gamma-Chlordane	8.25	Spike	P	0 - 30
1966228	Heptachlor	12.3	Spike	P	0 - 30
1966228	Heptachlor Epoxide	8.77	Spike	P	0 - 30
1966228	Methoxychlor	5.42	Spike	P	0 - 30
1966228	Mirex	6.14	Spike	P	0 - 30
1966228	Permethrin	4.96	Spike	P	0 - 30
1966228	Trifluralin	5.96	Spike	P	0 - 30
LFB	Aldrin	3.47	LCS	P	0 - 30
LFB	Alpha-BHC	5.59	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.89	LCS	P	0 - 30
LFB	Beta-BHC	2.03	LCS	P	0 - 30
LFB	Carbophenothion	9.50	LCS	P	0 - 30
LFB	Chlorothalonil	3.83	LCS	P	0 - 30
LFB	Cypermethrin	10.7	LCS	P	0 - 30
LFB	DDD-p,p'	2.04	LCS	P	0 - 30
LFB	DDE-p,p'	3.58	LCS	P	0 - 30
LFB	DDT-p,p'	3.94	LCS	P	0 - 30
LFB	Delta-BHC	2.68	LCS	P	0 - 30
LFB	Dicofol	11.1	LCS	P	0 - 30
LFB	Dieldrin	0.486	LCS	P	0 - 30
LFB	Endosulfan I	3.35	LCS	P	0 - 30
LFB	Endosulfan II	5.46	LCS	P	0 - 30
LFB	Endosulfan Sulfate	7.01	LCS	P	0 - 30
LFB	Endrin	2.83	LCS	P	0 - 30
LFB	Endrin Aldehyde	2.69	LCS	P	0 - 30
LFB	Endrin Ketone	4.24	LCS	P	0 - 30
LFB	Gamma-BHC	37.6	LCS	F	0 - 30
LFB	Gamma-Chlordane	3.02	LCS	P	0 - 30
LFB	Heptachlor	4.63	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.47	LCS	P	0 - 30
LFB	Methoxychlor	1.56	LCS	P	0 - 30
LFB	Mirex	5.67	LCS	P	0 - 30
LFB	Permethrin	4.98	LCS	P	0 - 30
LFB	Trifluralin	2.04	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P340189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966228	Chlordane	0.786	Spike	P	0 - 30
1966228	Toxaphene	0.917	Spike	P	0 - 30
LFB	Chlordane	1.06	LCS	P	0 - 30
LFB	Toxaphene	10.5	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966475	Sucralose	1.74	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966342	AMPA	3.57	Spike	P	0 - 30
1966342	Glyphosate	3.80	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966576	2,4-D	6.21	Spike	P	0 - 30
1966576	3-Hydroxycarbofuran	2.31	Spike	P	0 - 30
1966576	Acetaminophen	5.14	Spike	P	0 - 30
1966576	Aldicarb	21.0	Spike	P	0 - 30
1966576	Aldicarb Sulfone	4.36	Spike	P	0 - 30
1966576	Aldicarb Sulfoxide	2.46	Spike	P	0 - 30
1966576	Bentazon	13.8	Spike	P	0 - 30
1966576	Carbamazepine	0.575	Spike	P	0 - 30
1966576	Carbaryl	0.880	Spike	P	0 - 30
1966576	Carbofuran	0.0379	Spike	P	0 - 30
1966576	Diuron	5.78	Spike	P	0 - 30
1966576	Fenuron	5.73	Spike	P	0 - 30
1966576	Fluridone	0.141	Spike	P	0 - 30
1966576	Imidacloprid	2.68	Spike	P	0 - 30
1966576	Linuron	9.16	Spike	P	0 - 30
1966576	MCPP	22.8	Spike	P	0 - 30
1966576	Methiocarb	5.16	Spike	P	0 - 30
1966576	Methomyl	7.32	Spike	P	0 - 30
1966576	Oxamyl	0.601	Spike	P	0 - 30
1966576	Primidone	1.10	Spike	P	0 - 30
1966576	Propoxur	6.08	Spike	P	0 - 30
1966576	Pyraclostrobin	15.6	Spike	P	0 - 30
1966576	Triclopyr	10.1	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P339870

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966667	Color (true)	0.632	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P339871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966701	Color (true)	0.459	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P340526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966697	Total Alkalinity	0.378	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P340332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966694	TDS	0.412	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P340333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966712	TDS	0.667	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P340530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966697	Fluoride	0.992	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966668	Organic Carbon	0.0770	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P340427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967650	Organic Carbon	0.773	Spike	P	0 - 20

Quality Assurance Report Precision

* 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: 1966738
Field Sample ID: G1CE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	42.5	P	30 - 160
EPA 8321B	2,4-D-d3	42.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	143	P	30 - 160
EPA 8321B	Acetaminophen-d4	143	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.0	P	30 - 160
EPA 8321B	Diuron-d6	77.8	P	30 - 160
EPA 8321B	Diuron-d6	77.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	40 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	134	P	40 - 160

Lab Sample ID: 1966739
Field Sample ID: G1CE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	44.0	P	30 - 160

Lab Sample ID: 1966747
Field Sample ID: G1CE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	49.2	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	35.0	P	34 - 101
EPA 8276	Decachlorobiphenyl	43.9	P	31 - 108
EPA 8276	PCNB	80.0	P	62 - 142

Lab Sample ID: 1966748
Field Sample ID: G1CE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	109	P	71 - 126
EPA 8270D	Terbufos-d10	108	P	50 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A82003
Included Lab Sample IDs: 1966694, 1966697, 1966698, 1966699, 1966700, 1966701

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82003

Included Lab Sample IDs: 1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	102	P/P	90 - 110
Sulfate	105	102	P/P	90 - 110
Sulfate	107	102	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A82033

Included Lab Sample IDs: 1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.0	99.6	P/P	85 - 115
Color (true)	99.6	100	P/P	85 - 115
Color (true)	99.9	99.0	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82036

Included Lab Sample IDs: 1966696, 1966707, 1966708, 1966709, 1966710, 1966711

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A82039

Included Lab Sample IDs: 1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A82048

Included Lab Sample IDs: 1966738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	109	102	P/P	70 - 130
Glyphosate	97.4	104	P/P	70 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82100

Included Lab Sample IDs: 1966783, 1966784, 1966785, 1966786, 1966787, 1966788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Calcium	101	101	P/P	90 - 110
Iron	98.7	98.2	P/P	90 - 110
Iron	99.0	98.7	P/P	90 - 110
Magnesium	98.8	98.4	P/P	90 - 110
Magnesium	98.9	98.8	P/P	90 - 110
Potassium	96.6	96.8	P/P	90 - 110
Potassium	96.8	96.7	P/P	90 - 110
Sodium	98.8	98.2	P/P	90 - 110
Sodium	99.9	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82100

Included Lab Sample IDs: 1966783, 1966784, 1966785, 1966786, 1966787, 1966788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	97.5	96.6	P/P	90 - 110
Zinc	97.8	97.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82101

Included Lab Sample IDs: 1966783, 1966784, 1966785, 1966786, 1966787, 1966788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	103	103	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Nickel	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82125

Included Lab Sample IDs: 1966695, 1966702, 1966703, 1966704, 1966705, 1966706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110
Kjeldahl Nitrogen	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82133

Included Lab Sample IDs: 1966695

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82141

Included Lab Sample IDs: 1966703, 1966704, 1966705, 1966706

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82143

Included Lab Sample IDs: 1966783, 1966784, 1966785, 1966786, 1966787, 1966788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.9	95.8	P/P	90 - 110
Arsenic	96.2	95.9	P/P	90 - 110
Lead	104	102	P/P	90 - 110
Lead	105	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82157

Included Lab Sample IDs: 1966738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	110	96.2	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82159

Included Lab Sample IDs: 1966702

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82180

Included Lab Sample IDs: 1966695, 1966702, 1966703, 1966704, 1966705, 1966706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	99.4	P/P	90 - 110
Ammonia-N	99.6	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82205

Included Lab Sample IDs: 1966738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.2	85.0	P/P	50 - 150
3-Hydroxycarbofuran	121	112	P/P	60 - 150
Acetaminophen	116	113	P/P	60 - 150
Aldicarb	118	90.2	P/P	60 - 150
Aldicarb Sulfone	111	110	P/P	50 - 150
Aldicarb Sulfoxide	112	109	P/P	50 - 150
Bentazon	94.8	111	P/P	50 - 150
Carbamazepine	95.7	101	P/P	60 - 150
Carbaryl	111	114	P/P	60 - 150
Carbofuran	108	103	P/P	50 - 150
Diuron	122	118	P/P	60 - 150
Fenuron	116	116	P/P	60 - 150
Fluridone	98.9	117	P/P	60 - 160
Imidacloprid	104	96.0	P/P	60 - 150
Linuron	108	117	P/P	60 - 150
MCPP	99.0	96.0	P/P	50 - 150
Methiocarb	106	116	P/P	50 - 150
Methomyl	108	108	P/P	50 - 150
Oxamyl	111	115	P/P	50 - 150
Primidone	126	112	P/P	60 - 150
Propoxur	110	97.9	P/P	50 - 150
Pyraclostrobin	108	106	P/P	60 - 150
Triclopyr	97.3	107	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82217

Included Lab Sample IDs: 1966695, 1966702, 1966703, 1966704, 1966705, 1966706

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A82231

Included Lab Sample IDs: 1966695, 1966702, 1966703, 1966704, 1966705, 1966706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	102	P/P	90 - 110
Organic Carbon	98.2	103	P/P	90 - 110
Organic Carbon	99.4	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82238

Included Lab Sample IDs: 1966783, 1966784, 1966785

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	96.0	94.0	P/P	90 - 110
Silver	96.0	96.9	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A82250

Included Lab Sample IDs: 1966747

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.1		P	80 - 120
Alpha-Chlordane	94.6		P	80 - 120
Beta-BHC	97.1		P	80 - 120
Carbophenothion	86.1		P	80 - 120
Chlorothalonil	118		P	80 - 120
Cypermethrin	90.4		P	80 - 120
DDD-p,p'	97.6		P	80 - 120
DDE-p,p'	97.1		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	109		P	80 - 120
Dicofol	107		P	80 - 120
Dieldrin	94.1		P	80 - 120
Endosulfan I	97.0		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	92.2		P	80 - 120
Endrin Aldehyde	92.7		P	80 - 120
Endrin Ketone	98.5		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	93.7		P	80 - 120
Heptachlor	93.0		P	80 - 120
Heptachlor Epoxide	94.8		P	80 - 120
Methoxychlor	104		P	80 - 120
Mirex	98.5		P	80 - 120
Permethrin	95.6		P	80 - 120
Trifluralin	98.9		P	80 - 120

Reference Method: EPA 8276

Run ID: A82261

Included Lab Sample IDs: 1966747

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	106		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82264

Included Lab Sample IDs: 1966786, 1966787, 1966788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	96.0	95.1	P/P	90 - 110
Silver	96.0	95.6	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82266

Included Lab Sample IDs: 1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.8	97.0	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82266

Included Lab Sample IDs: 1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	98.1	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A82432

Included Lab Sample IDs: 1966748

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	109		P	80 - 120
Ametryn	109		P	80 - 120
Atrazine	112		P	80 - 120
Atrazine Desethyl	110		P	80 - 120
Azinphos Methyl	116		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	107		P	80 - 120
Chlorpyrifos Ethyl	99.5		P	80 - 120
Chlorpyrifos Methyl	111		P	80 - 120
Cyanazine	99.9		P	80 - 120
Demeton	112		P	80 - 120
Diazinon	97.6		P	80 - 120
Disulfoton	110		P	80 - 120
EPTC	111		P	80 - 120
Ethion	116		P	80 - 120
Ethoprop	108		P	80 - 120
Fenamiphos	99.7		P	80 - 120
Fipronil	115		P	80 - 120
Fipronil Sulfide	106		P	80 - 120
Fipronil Sulfone	135*		F	80 - 120
Fonofos	114		P	80 - 120
Hexazinone	111		P	80 - 120
Malathion	113		P	80 - 120
Metaxyl	107		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	107		P	80 - 120
Mevinphos	126*		F	80 - 120
Molinate	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A82432
Included Lab Sample IDs: 1966748

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	105		P	80 - 120
Parathion Ethyl	112		P	80 - 120
Parathion Methyl	119		P	80 - 120
Pendimethalin	114		P	80 - 120
Phorate	118		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	108		P	80 - 120
Simazine	117		P	80 - 120
Terbufos	108		P	80 - 120
Terbutylazine	107		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							0.913	
	Turbidity							1.84	
EPA 200.7 Rev. 4.4	Calcium	105		106	104				1.31
	Iron	108		103	105	102			2.10
	Magnesium	103		102	102				1.70
	Potassium	103		98.0	101	100			0.578
	Sodium	101		102	101				1.57
	Zinc	100		97.8	97.9	96.2			1.74
EPA 200.8 Rev. 5.4	Arsenic	99.8		99.0	96.5	97.3			0.836
	Cadmium	102		105	103	103			0.0521
	Chromium	102		101	98.1	97.1			1.07
	Chromium	104		102	101	97.9			0.356
	Copper	99.7		99.7	97.8	99.7			1.94
	Lead	104		105	102	104			2.20
	Nickel	102		101	99.2	109			9.20
	Silver	97.5		97.4	95.9	95.3			0.701
	Silver	101		98.5	96.8	94.7			1.77
EPA 300.0 Rev. 2.1	Chloride	101		102	103			1.64	
	Chloride	104		107	104			2.81	
	Sulfate	103		103	104			2.34	
	Sulfate	104		108	105			2.91	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0		101	96.8				2.71
	Ammonia-N	100		98.1	98.2				0.0864
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	91.0		101	97.1				2.24
EPA 353.2 Rev. 2.0	NO2NO3-N	102		103	103				0.0
	NO2NO3-N	103		105	105				0.406
EPA 365.1 Rev. 2.0	Total-P	100		101	103				1.70
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.8		97.2	99.0				1.12
EPA 8270D	Acetochlor	81.4	94.8	90.3	93.3		15.2		3.29
	Alachlor	87.6	99.2	81.4	96.0		12.4		16.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Aldrin	56.2	58.2	65.2	57.9	3.47	11.8
	Alpha-BHC	70.8	74.9	91.6	91.6	5.59	0.0614
	Alpha-Chlordane	72.6	75.5	80.1	73.3	3.89	8.93
	Ametryn	78.0	95.6	51.9	66.5	20.3	24.7
	Atrazine	107	112			4.11	6.48
	Atrazine Desethyl	97.6	95.2	60.1	65.2	2.58	6.00
	Azinphos Methyl	147	164	174	198	11.4	13.1
	Beta-BHC	92.9	91.1	92.9	99.3	2.03	6.72
	Bromacil	32.8	32.3	62.8	82.7	1.35	20.5
	Butylate	67.6	56.4	62.6	59.0	18.0	5.92
	Carbophenothion	72.6	79.9	81.2	81.9	9.50	0.863
	Chlorothalonil	76.6	79.6	109	99.7	3.83	8.78
	Chlorpyrifos Ethyl	91.6	95.2	83.3	111	3.87	28.7
	Chlorpyrifos Methyl	106	118	113	127	10.7	11.9
	Cyanazine	108	111	103	124	3.31	18.5
	Cypermethrin	84.3	75.8	90.5	89.2	10.7	1.37
	DDD-p,p'	89.1	87.3	89.7	85.9	2.04	4.41
	DDE-p,p'	75.3	78.0	83.4	78.0	3.58	6.66
	DDT-p,p'	78.8	75.8	92.3	88.0	3.94	4.70
	Delta-BHC	99.5	102	117	128	2.68	8.82
	Demeton	84.6	80.9	143	154	4.53	7.03
	Diazinon	96.5	96.6	96.1	97.1	0.0362	1.05
	Dicofol	78.0	69.8	84.5	78.7	11.1	7.06
	Dieldrin	76.0	76.4	82.8	75.6	0.486	9.06
	Disulfoton	112	110	101	98.4	1.15	2.10
	Endosulfan I	84.0	86.9	97.8	88.5	3.35	9.96
	Endosulfan II	107	113	118	109	5.46	7.93
	Endosulfan Sulfate	90.1	84.0	89.4	87.2	7.01	2.47
	Endrin	77.7	75.5	86.0	80.0	2.83	7.24
	Endrin Aldehyde	60.2	61.8	72.6	67.5	2.69	7.16
	Endrin Ketone	86.1	82.5	95.5	92.6	4.24	3.06
	EPTC	67.7	54.8	58.8	53.5	21.1	9.53
	Ethion	120	115	99.6	123	3.95	21.3
	Ethoprop	104	100	101	114	3.42	11.6
	Fenamiphos	106	97.2	77.7	111	8.47	35.4
	Fipronil	95.3	94.6	93.0	72.6	0.773	14.7
	Fipronil Sulfide	92.3	94.1	87.4	76.8	1.98	8.78
	Fipronil Sulfone	88.6	89.6			1.06	15.9
	Fonofos	111	111	107	124	0.757	15.2
	Gamma-BHC	93.8	64.1	90.4	101	37.6	11.1
	Gamma-Chlordane	71.7	73.9	78.0	71.8	3.02	8.25
	Heptachlor	57.4	60.1	65.4	57.8	4.63	12.3
	Heptachlor Epoxide	74.2	75.3	80.7	73.9	1.47	8.77
	Hexazinone	113	120	108	127	5.96	16.0
	Malathion	121	115	118	135	5.21	13.7
	Metalaxyl	84.3	90.3	87.7	86.9	6.81	0.975
	Methoxychlor	86.3	84.9	96.6	91.5	1.56	5.42
	Metolachlor	95.2	91.8	92.3	104	3.56	11.9
	Metribuzin	126	141	145	146	11.1	0.613
	Mevinphos	93.4	89.0	139	160	4.79	14.1
	Mirex	66.0	62.4	78.5	73.8	5.67	6.14
	Molinate	88.3	80.9	87.3	86.7	8.68	0.691
	Norflurazon	80.9	84.7	88.7	106	4.70	17.4
	Parathion Ethyl	92.5	95.6	102	112	3.33	8.89

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Parathion Methyl	98.7	103	143	143	3.92	0.121
	Pendimethalin	102	115	114	106	12.4	7.70
	Permethrin	82.8	78.8	92.1	87.6	4.98	4.96
	Phorate	110	109	99.7	109	1.22	9.16
	Prometon	88.0	88.9	87.0	95.5	1.08	9.31
	Prometryn	83.2	81.5	71.2	77.7	2.14	8.80
	Simazine	124	113			8.94	17.6
	Terbufos	108	108	103	104	0.233	1.15
	Terbutylazine	96.9	105	93.0	89.3	8.48	4.10
	Trifluralin	66.3	65.0	77.5	73.0	2.04	5.96
EPA 8276	Chlordane	76.2	77.0	58.9	58.4	1.06	0.786
	Toxaphene	106	95.5	71.4	72.1	10.5	0.917
EPA 8321B	2,4-D	63.5		38.1	40.6		6.21
	3-Hydroxycarbofuran	102		103	105		2.31
	Acetaminophen	92.8		120	114		5.14
	Aldicarb	81.7		63.1	77.9		21.0
	Aldicarb Sulfone	93.4		112	117		4.36
	Aldicarb Sulfoxide	93.4		89.6	87.4		2.46
	AMPA	106		92.6	96.7		3.57
	Bentazon	73.9		24.8	29.5		13.8
	Carbamazepine	73.3		71.5	71.1		0.575
	Carbaryl	72.6		53.6	53.2		0.880
	Carbofuran	73.4		52.8	52.8		0.0379
	Diuron	76.0		58.3	62.4		5.78
	Fenuron	103		88.5	83.6		5.73
	Fluridone	72.9		60.2	60.1		0.141
	Glyphosate	105		97.3	93.0		3.80
	Imidacloprid	87.8		135	131		2.68
	Linuron	75.5		70.9	64.7		9.16
	MCPP	70.6		32.2	40.5		22.8
	Methiocarb	69.8		63.0	59.8		5.16
	Methomyl	96.8		85.5	92.0		7.32
	Oxamyl	96.2		87.8	88.4		0.601
	Primidone	88.3		102	103		1.10
	Propoxur	67.5		49.1	52.2		6.08
	Pyraclostrobin	67.8		70.1	59.9		15.6
	Sucralose	111		143	145		1.74
	Triclopyr	65.5		34.8	38.5		10.1
SM 2120 B	Color (true)					0.632	
	Color (true)					0.459	
SM 2320 B-97	Total Alkalinity	99.1				0.378	
SM 2540 C-97	TDS					0.412	
	TDS					0.667	
SM 4500 F-C-97	Fluoride	95.9		97.2	96.0		0.992
SM 5310 B-00	Organic Carbon	96.2		111			0.0770
	Organic Carbon	95.6		95.3	96.1		0.773

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1966783, 1966784, 1966785, 1966786, 1966787, 1966788
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1966783, 1966784, 1966785, 1966786, 1966787, 1966788
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1966696, 1966707, 1966708, 1966709, 1966710, 1966711
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1966747
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1966748
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1966747
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1966739
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1966738
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1966738
SM 2120 B / E31780	True Color measured at 450 nm	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1966695, 1966702, 1966703, 1966704, 1966705, 1966706

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	02/13/2018			02/13/2018 17:01	Sima Feizi	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
EPA 200.7 Rev. 4.4	02/13/2018	02/14/2018	Elliott D. Healy	02/15/2018	Betina Topolski	1966783, 1966784, 1966785, 1966786, 1966787, 1966788
EPA 200.8 Rev. 5.4	02/13/2018	02/14/2018	Elliott D. Healy	02/15/2018	Robert K Palmer	1966783, 1966784, 1966785, 1966786, 1966787, 1966788
	02/13/2018	02/14/2018	Elliott D. Healy	02/16/2018	Robert K Palmer	1966783, 1966784, 1966785, 1966786, 1966787, 1966788
	02/13/2018	02/21/2018	Elliott D. Healy	02/22/2018	Nadine Brooks	1966783, 1966784, 1966785
	02/13/2018	02/22/2018	Elliott D. Healy	02/23/2018	Robert K Palmer	1966786, 1966787, 1966788
EPA 300.0 Rev. 2.1	02/13/2018			02/14/2018	Julia Storbeck	1966698, 1966699, 1966700, 1966701
	02/13/2018			02/15/2018	Julia Storbeck	1966694, 1966697
EPA 350.1 Rev. 2.0	02/13/2018			02/20/2018	Ping Hua	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 351.2 Rev. 2.0	02/13/2018	02/15/2018	Adrian Shelby	02/16/2018	Joseph Suarez	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 353.2 Rev. 2.0	02/13/2018			02/21/2018	Lauren Bottorf	1966695, 1966702, 1966703, 1966704, 1966705, 1966706
EPA 365.1 Rev. 2.0	02/13/2018	02/16/2018	Sima Feizi	02/19/2018	Beverly Y. Sanders	1966695, 1966703, 1966704, 1966705, 1966706
	02/13/2018	02/16/2018	Sima Feizi	02/19/2018	Lipi Saha	1966702
	02/13/2018			02/13/2018 17:46	Megan Treadwell	1966696
	02/13/2018			02/13/2018 17:47	Megan Treadwell	1966707
	02/13/2018			02/13/2018 17:48	Megan Treadwell	1966708
	02/13/2018			02/13/2018 17:49	Megan Treadwell	1966709
	02/13/2018			02/13/2018 17:50	Megan Treadwell	1966710
	02/13/2018			02/13/2018 17:51	Megan Treadwell	1966711
EPA 8270D	02/13/2018	02/14/2018	Rasheda Ghaffari	02/15/2018	Marek Topolski	1966747
	02/13/2018	02/16/2018	Rasheda Ghaffari	02/20/2018	Vandana T. Nagar	1966748
EPA 8276	02/13/2018	02/14/2018	Rasheda Ghaffari	02/22/2018	John P. Burgos	1966747
EPA 8321B	02/13/2018	02/14/2018	Hoor Shaik	02/16/2018	Julie Michelle Frank	1966739
	02/13/2018	02/14/2018	Julie Michelle Frank	02/14/2018	Julie Michelle Frank	1966738
	02/13/2018	02/15/2018	Julie Michelle Frank	02/16/2018	Juyoung Kim	1966738
SM 2120 B	02/13/2018			02/13/2018 17:07	Tanya Welborn	1966694
	02/13/2018			02/13/2018 17:08	Tanya Welborn	1966697
	02/13/2018			02/13/2018 17:09	Tanya Welborn	1966698, 1966699
	02/13/2018			02/13/2018 17:14	Tanya Welborn	1966701
	02/13/2018			02/13/2018 17:31	Tanya Welborn	1966700
SM 2320 B-97	02/13/2018			02/23/2018	Dale L. Simmons	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 2540 C-97	02/13/2018			02/14/2018	DeAsia Armster	1966694, 1966697, 1966698, 1966699, 1966700, 1966701

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	02/13/2018			02/14/2018	DeAsia Armster	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 4500 F-C-97	02/13/2018			02/23/2018	Dale L. Simmons	1966694, 1966697, 1966698, 1966699, 1966700, 1966701
SM 5310 B-00	02/13/2018			02/21/2018	Megan Treadwell	1966702, 1966703, 1966704, 1966705, 1966706
	02/13/2018			02/22/2018	Megan Treadwell	1966695