Chemical Analysis Report

SW-DIST-2018-03-02-01

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

Event Description: **Cockroach & Lil Manatee**
Request ID: **RQ-2018-02-26-11**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 09-APR-2018 12:43

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: Cockroach Bay at Dockage **Collection Date/Time: 03/01/2018 09:50**

Field ID: G1SW0090 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971358	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P340899	
	EPA 300.0 Rev. 2.1	Chloride	1.6E+04		mg Cl/L	P341419	
		Sulfate	2.2E+03		mg SO4/L	P341424	
	SM 2120 B	Color (true)	15		PCU	P340895	
	SM 2320 B-97	Total Alkalinity	143		mg CaCO3/L	P341337	
	SM 2540 C-97	TDS	2.83E+04		mg/L	P341469	
	SM 2540 D-97	TSS	25		mg/L	P341379	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P341531	
1971360	EPA 350.1 Rev. 2.0	Ammonia-N	0.25		mg N/L	P340973	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P341059	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.027		mg N/L	P341104	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P341082	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P341047	
1971362	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P340893	
1971386	EPA 200.7 Rev. 4.4	Iron	590		ug/L	P341012	
		Zinc	20	U	ug/L	P341012	
	EPA 200.8 Rev. 5.4	Arsenic	4.53		ug/L	P341012	
		Cadmium	0.080	U	ug/L	P341012	
		Chromium	1.6	U	ug/L	P341012	
		Copper	2.8	I	ug/L	P341012	
		Lead	0.57	I	ug/L	P341012	
		Nickel	0.86	I	ug/L	P341012	
		Silver	0.040	U	ug/L	P341012	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Cockroach Bay at Dockage **Collection Date/Time: 03/01/2018 09:50**

Field ID: G1SW0090 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971374	EPA 8321B	Aldicarb	0.020	U	ug/L	P340783	
		Aldicarb Sulfone	0.0020	U	ug/L	P340783	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340783	
		Carbaryl	0.0020	U	ug/L	P340783	
		Carbofuran	0.0020	U	ug/L	P340783	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340783	
		Methiocarb	0.0020	U	ug/L	P340783	
		Methomyl	0.0020	U	ug/L	P340783	
		Oxamyl	0.0020	U	ug/L	P340783	
		Propoxur	0.0020	U	ug/L	P340783	
1971376		2,4-D	0.0020	U	ug/L	P340783	
		Sucralose**	0.77		ug/L	P340836	
		Bentazon	8.0E-04	U	ug/L	P340783	MS

Field ID: G1SW0090 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971376	EPA 8321B	MCPP	0.0020	U	ug/L	P340783	MS
		Triclopyr**	0.0040	U	ug/L	P340783	
		Imidacloprid	0.0020	U	ug/L	P340783	MS
		Diuron	0.0020	U	ug/L	P340783	
		Pyraclostrobin**	0.0020	U	ug/L	P340783	
		Primidone**	0.0092	I	ug/L	P340783	
		Linuron	0.0040	U	ug/L	P340783	
		Acetaminophen**	0.0080	U	ug/L	P340783	
		Fenuron	0.0080	U	ug/L	P340783	
		Imazapyr**	0.0040	U	ug/L	P340783	
		Carbamazepine**	9.3E-04	I	ug/L	P340783	
		Fluridone**	8.1E-04	I	ug/L	P340783	
		Glyphosate**	0.10	UJ	ug/L	P340878	SUR
		AMPA**	0.10	UJ	ug/L	P340878	SUR
1971381	EPA 8270D	Aldrin	4.1	U	ng/L	P340939	
		Alpha-BHC	2.1	U	ng/L	P340939	
		Beta-BHC	4.1	U	ng/L	P340939	
		Delta-BHC	4.1	U	ng/L	P340939	
		Gamma-BHC	4.1	U	ng/L	P340939	
		Carbophenothion	4.1	U	ng/L	P340939	RPD
		Chlorothalonil	2.1	UJ	ng/L	P340939	RPD
		Cypermethrin	21	U	ng/L	P340939	
		DDD-p,p'	3.1	U	ng/L	P340939	
		DDE-p,p'	3.1	U	ng/L	P340939	
		DDT-p,p'	3.1	U	ng/L	P340939	
		Dieldrin	4.1	U	ng/L	P340939	
		Endosulfan I	4.1	U	ng/L	P340939	RPD
		Endosulfan II	4.1	U	ng/L	P340939	RPD
		Endosulfan Sulfate	2.1	U	ng/L	P340939	
		Endrin	2.1	U	ng/L	P340939	
		Endrin Aldehyde	2.1	U	ng/L	P340939	MS, RPD
		Heptachlor	1.6	U	ng/L	P340939	
		Heptachlor Epoxide	2.1	U	ng/L	P340939	
		Methoxychlor	4.1	U	ng/L	P340939	
		Mirex	2.1	U	ng/L	P340939	
		Permethrin	10	U	ng/L	P340939	
		Trifluralin	1.0	U	ng/L	P340939	
		Alpha-Chlordane	1.0	U	ng/L	P340939	
		Gamma-Chlordane	1.0	U	ng/L	P340939	
		Endrin Ketone	2.1	U	ng/L	P340939	
		Dicofol	31	U	ng/L	P340939	
	EPA 8276	Chlordane**	2.6	U	ng/L	P340939	
		Toxaphene**	31	U	ng/L	P340939	
1971383	EPA 8270D	Alachlor	0.23	U	ng/L	P340974	
		Ametryn	0.30	U	ng/L	P340974	

Field ID: G1SW0090 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971383	EPA 8270D	Atrazine	6.0		ng/L	P340974	
		Atrazine Desethyl	1.4	U	ng/L	P340974	
		Azinphos Methyl	2.1	U	ng/L	P340974	
		Bromacil	1.9	J	ng/L	P340974	LCS
		Butylate	0.37	U	ng/L	P340974	
		Chlorpyrifos Ethyl	0.30	I	ng/L	P340974	
		Chlorpyrifos Methyl	0.093	U	ng/L	P340974	
		Demeton	1.9	U	ng/L	P340974	
		Diazinon	0.12	U	ng/L	P340974	
		Disulfoton	0.46	U	ng/L	P340974	
		EPTC	1.2	U	ng/L	P340974	
		Ethion	0.14	U	ng/L	P340974	
		Ethoprop	0.093	U	ng/L	P340974	
		Fenamiphos	0.23	U	ng/L	P340974	
		Fipronil	0.23	U	ng/L	P340974	
		Fipronil Sulfide	0.14	U	ng/L	P340974	
		Fipronil Sulfone	0.14	U	ng/L	P340974	
		Hexazinone	3.1		ng/L	P340974	
		Malathion	0.33	U	ng/L	P340974	
		Metribuzin	0.19	UJ	ng/L	P340974	LCS, MS
		Mevinphos	0.46	U	ng/L	P340974	
		Molinate	0.28	U	ng/L	P340974	
		Norflurazon	0.67	I	ng/L	P340974	
		Pendimethalin	0.93	U	ng/L	P340974	
		Phorate	0.23	U	ng/L	P340974	
		Prometon	0.84	U	ng/L	P340974	
		Prometryn	0.19	U	ng/L	P340974	
		Simazine	0.46	U	ng/L	P340974	
		Terbufos	0.093	U	ng/L	P340974	
		Terbuthylazine	0.39	U	ng/L	P340974	
		Fonofos	0.19	U	ng/L	P340974	
		Metalaxyl	0.62	I	ng/L	P340974	
		Metolachlor	1.3		ng/L	P340974	
		Acetochlor	0.23	U	ng/L	P340974	
		Cyanazine	0.46	U	ng/L	P340974	
		Parathion Ethyl	0.23	U	ng/L	P340974	
		Parathion Methyl	0.23	U	ng/L	P340974	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.
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 these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Cockroach Bay at Boat Ramp **Collection Date/Time: 03/01/2018 09:30**

Field ID: G1SW0089 Matrix: W-SURF-SLT

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

Field ID: G1SW0089 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971359	EPA 180.1 Rev. 2.0	Turbidity	2.3	A	NTU	P340900	
	EPA 300.0 Rev. 2.1	Chloride	1.8E+04		mg Cl/L	P341419	
		Sulfate	2.4E+03		mg SO4/L	P341424	
	SM 2120 B	Color (true)	7.0		PCU	P340896	
	SM 2320 B-97	Total Alkalinity	131		mg CaCO3/L	P341337	
	SM 2540 C-97	TDS	2.94E+04		mg/L	P341354	
	SM 2540 D-97	TSS	7	IQ	mg/L	P341868	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P341531	
1971361	EPA 350.1 Rev. 2.0	Ammonia-N	0.055		mg N/L	P340973	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P341059	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P341104	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P341082	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P341047	
1971363	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.084		mg P/L	P340893	
1971387	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P341012	
		Zinc	20	U	ug/L	P341012	
	EPA 200.8 Rev. 5.4	Arsenic	3.08		ug/L	P341012	
		Cadmium	0.080	U	ug/L	P341012	
		Chromium	1.6	U	ug/L	P341012	
		Copper	0.97	I	ug/L	P341012	
		Lead	0.82	I	ug/L	P341012	
		Nickel	0.80	U	ug/L	P341012	
		Silver	0.040	U	ug/L	P341012	

Ref. Method and Comment:
SM 2540 D-97: Sample reanalyzed out of holding time due to analytical difficulties.
EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Cockroach Bay at Boat Ramp **Collection Date/Time: 03/01/2018 09:30**

Field ID: G1SW0089 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971375	EPA 8321B	Aldicarb	0.020	U	ug/L	P340783	
		Aldicarb Sulfone	0.0020	U	ug/L	P340783	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340783	
		Carbaryl	0.0020	U	ug/L	P340783	
		Carbofuran	0.0020	U	ug/L	P340783	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340783	
		Methiocarb	0.0020	U	ug/L	P340783	
		Methomyl	0.0020	U	ug/L	P340783	
		Oxamyl	0.0020	U	ug/L	P340783	
		Propoxur	0.0020	U	ug/L	P340783	
1971377		2,4-D	0.0020	U	ug/L	P340783	
		Sucralose**	0.49		ug/L	P340836	
		Bentazon	8.0E-04	U	ug/L	P340783	MS
		MCPP	0.0020	U	ug/L	P340783	MS
		Triclopyr**	0.0040	U	ug/L	P340783	

Field ID: G1SW0089 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971377	EPA 8321B	Imidacloprid	0.0020	U	ug/L	P340783	MS
		Diuron	0.0020	U	ug/L	P340783	
		Pyraclostrobin**	0.0020	U	ug/L	P340783	
		Primidone**	0.0040	U	ug/L	P340783	
		Linuron	0.0040	U	ug/L	P340783	
		Acetaminophen**	0.0080	U	ug/L	P340783	
		Fenuron	0.0080	U	ug/L	P340783	
		Imazapyr**	0.0040	U	ug/L	P340783	
		Carbamazepine**	8.3E-04	I	ug/L	P340783	
		Fluridone**	9.2E-04	I	ug/L	P340783	
		Glyphosate**	0.10	UJ	ug/L	P340878	SUR
		AMPA**	0.10	UJ	ug/L	P340878	SUR
1971382	EPA 8270D	Aldrin	4.3	U	ng/L	P340939	
		Alpha-BHC	2.1	U	ng/L	P340939	
		Beta-BHC	4.3	U	ng/L	P340939	
		Delta-BHC	4.3	U	ng/L	P340939	
		Gamma-BHC	4.3	U	ng/L	P340939	
		Carbophenothion	4.3	U	ng/L	P340939	RPD
		Chlorothalonil	2.1	UJ	ng/L	P340939	RPD
		Cypermethrin	21	U	ng/L	P340939	
		DDD-p,p'	3.2	U	ng/L	P340939	
		DDE-p,p'	3.2	U	ng/L	P340939	
		DDT-p,p'	3.2	U	ng/L	P340939	
		Dieldrin	4.3	U	ng/L	P340939	
		Endosulfan I	4.3	U	ng/L	P340939	RPD
		Endosulfan II	4.3	U	ng/L	P340939	RPD
		Endosulfan Sulfate	2.1	U	ng/L	P340939	
		Endrin	2.1	U	ng/L	P340939	
		Endrin Aldehyde	2.1	U	ng/L	P340939	MS, RPD
		Heptachlor	1.6	U	ng/L	P340939	
		Heptachlor Epoxide	2.1	U	ng/L	P340939	
		Methoxychlor	4.3	U	ng/L	P340939	
		Mirex	2.1	U	ng/L	P340939	
		Permethrin	11	U	ng/L	P340939	
		Trifluralin	1.1	U	ng/L	P340939	
		Alpha-Chlordane	1.1	U	ng/L	P340939	
		Gamma-Chlordane	1.1	U	ng/L	P340939	
		Endrin Ketone	2.1	U	ng/L	P340939	
		Dicofol	32	U	ng/L	P340939	
	EPA 8276	Chlordane**	2.7	U	ng/L	P340939	
		Toxaphene**	32	U	ng/L	P340939	
1971384	EPA 8270D	Alachlor	0.23	U	ng/L	P340974	
		Ametryn	0.31	U	ng/L	P340974	
		Atrazine	6.4		ng/L	P340974	
		Atrazine Desethyl	1.4	U	ng/L	P340974	

Field ID: G1SW0089 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971384	EPA 8270D	Azinphos Methyl	2.1	U	ng/L	P340974	
		Bromacil	1.7	IJ	ng/L	P340974	LCS
		Butylate	0.38	U	ng/L	P340974	
		Chlorpyrifos Ethyl	0.30	I	ng/L	P340974	
		Chlorpyrifos Methyl	0.094	U	ng/L	P340974	
		Demeton	1.9	U	ng/L	P340974	
		Diazinon	0.12	U	ng/L	P340974	
		Disulfoton	0.47	U	ng/L	P340974	
		EPTC	1.2	U	ng/L	P340974	
		Ethion	0.14	U	ng/L	P340974	
		Ethoprop	0.094	U	ng/L	P340974	
		Fenamiphos	0.23	U	ng/L	P340974	
		Fipronil	0.23	U	ng/L	P340974	
		Fipronil Sulfide	0.14	U	ng/L	P340974	
		Fipronil Sulfone	0.14	U	ng/L	P340974	
		Hexazinone	1.4	I	ng/L	P340974	
		Malathion	0.33	U	ng/L	P340974	
		Metribuzin	0.19	UJ	ng/L	P340974	LCS, MS
		Mevinphos	0.47	U	ng/L	P340974	
		Molinate	0.28	U	ng/L	P340974	
		Norflurazon	0.47	U	ng/L	P340974	
		Pendimethalin	0.94	U	ng/L	P340974	
		Phorate	0.23	U	ng/L	P340974	
		Prometon	0.85	U	ng/L	P340974	
		Prometryn	0.19	U	ng/L	P340974	
		Simazine	0.47	U	ng/L	P340974	
		Terbufos	0.094	U	ng/L	P340974	
		Terbuthylazine	0.40	U	ng/L	P340974	
		Fonofos	0.19	U	ng/L	P340974	
		Metalaxyl	0.69	I	ng/L	P340974	
		Metolachlor	1.1		ng/L	P340974	
		Acetochlor	0.23	U	ng/L	P340974	
		Cyanazine	0.47	U	ng/L	P340974	
		Parathion Ethyl	0.23	U	ng/L	P340974	
		Parathion Methyl	0.23	U	ng/L	P340974	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.
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 these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Piney Pt Creek @ County Line Rd **Collection Date/Time: 03/01/2018 10:30**

Field ID: G1SW0091 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971378	EPA 8321B	2,4-D	0.0020	U	ug/L	P340783	
		Sucralose**	0.079		ug/L	P340836	

Field ID: G1SW0091 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971378	EPA 8321B	Bentazon	0.0028	I	ug/L	P340783	MS
		MCPP	0.0020	U	ug/L	P340783	MS
		Triclopyr**	0.0040	U	ug/L	P340783	
		Imidacloprid	0.0039	I	ug/L	P340783	MS
		Diuron	0.032		ug/L	P340783	
		Primidone**	0.0040	U	ug/L	P340783	
		Linuron	0.0040	U	ug/L	P340783	
		Acetaminophen**	0.0080	U	ug/L	P340783	
		Fenuron	0.0080	U	ug/L	P340783	
		Imazapyr**	0.095		ug/L	P340783	
		Carbamazepine**	4.0E-04	U	ug/L	P340783	
		Fluridone**	8.0E-04	U	ug/L	P340783	

Sample Location: Little Manatee River at SP Boat Ramp **Collection Date/Time: 03/01/2018 11:15**

Field ID: G2SW0037 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971355	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P340899	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P341419	
		Sulfate	92		mg SO4/L	P341424	
	SM 2120 B	Color (true)	53		PCU	P340895	
	SM 2320 B-97	Total Alkalinity	42		mg CaCO3/L	P341336	
	SM 2540 C-97	TDS	208		mg/L	P341464	
	SM 2540 D-97	TSS	3	I	mg/L	P341372	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P341527	
1971356	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P341234	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P340966	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.52		mg N/L	P340947	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P340994	
	SM 5310 B-00	Organic Carbon	8.6		mg C/L	P341045	
1971357	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.23		mg P/L	P340891	
1971385	EPA 200.7 Rev. 4.4	Calcium	33.2		mg/L	P340962	
		Iron	180		ug/L	P340962	
		Magnesium	14.8		mg/L	P340962	
		Potassium	6.7		mg/L	P340962	
		Sodium	11.8		mg/L	P340962	
		Zinc	5.0	U	ug/L	P340962	
	EPA 200.8 Rev. 5.4	Arsenic	0.69		ug/L	P340962	
		Cadmium	0.038	I	ug/L	P340962	
		Chromium	0.54	I	ug/L	P340962	
		Copper	1.69		ug/L	P342450	
		Lead	0.097	I	ug/L	P341739	
		Nickel	0.43	I	ug/L	P341739	
		Silver	0.010	U	ug/L	P340962	

Field ID: G2SW0037 Matrix: W-SURF-FRH

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

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

Sample Location: Little Manatee River at SP Boat Ramp **Collection Date/Time: 03/01/2018 11:15**

Field ID: G2SW0037 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971372	EPA 8321B	Aldicarb	0.020	U	ug/L	P340783	
		Aldicarb Sulfone	0.0020	U	ug/L	P340783	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340783	
		Carbaryl	0.0020	U	ug/L	P340783	
		Carbofuran	0.0020	U	ug/L	P340783	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340783	
		Methiocarb	0.0020	U	ug/L	P340783	
		Methomyl	0.0020	U	ug/L	P340783	
		Oxamyl	0.0020	U	ug/L	P340783	
		Propoxur	0.0020	U	ug/L	P340783	
1971373		2,4-D	0.0020	U	ug/L	P340783	
		Sucralose**	0.18		ug/L	P340836	
		Bentazon	0.0046		ug/L	P340783	MS
		MCPP	0.0020	U	ug/L	P340783	MS
		Triclopyr**	0.0040	U	ug/L	P340783	
		Imidacloprid	0.19		ug/L	P340783	MS
		Diuron	0.024		ug/L	P340783	
		Pyraclostrobin**	0.0025	I	ug/L	P340783	
		Primidone**	0.0040	U	ug/L	P340783	
		Linuron	0.0040	U	ug/L	P340783	
		Acetaminophen**	0.0080	U	ug/L	P340783	
		Fenuron	0.0080	U	ug/L	P340783	
		Imazapyr**	0.056		ug/L	P340783	
		Carbamazepine**	4.0E-04	U	ug/L	P340783	
		Fluridone**	0.0048		ug/L	P340783	
		Glyphosate**	0.23	I	ug/L	P340878	
		AMPA**	0.53		ug/L	P340878	
1971379	EPA 8270D	Aldrin	4.1	U	ng/L	P340939	
		Alpha-BHC	2.1	U	ng/L	P340939	
		Beta-BHC	4.1	U	ng/L	P340939	
		Delta-BHC	4.1	U	ng/L	P340939	
		Gamma-BHC	4.1	U	ng/L	P340939	
		Carbophenothion	4.1	U	ng/L	P340939	RPD
		Chlorothalonil	2.1	UJ	ng/L	P340939	RPD
		Cypermethrin	21	U	ng/L	P340939	
		DDD-p,p'	3.1	U	ng/L	P340939	
		DDE-p,p'	3.1	U	ng/L	P340939	
		DDT-p,p'	3.1	U	ng/L	P340939	
		Dieldrin	4.1	U	ng/L	P340939	

Field ID: G2SW0037 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971379	EPA 8270D	Endosulfan I	4.1	U	ng/L	P340939	RPD
		Endosulfan II	4.1	U	ng/L	P340939	RPD
		Endosulfan Sulfate	2.1	U	ng/L	P340939	
		Endrin	2.1	U	ng/L	P340939	
		Endrin Aldehyde	2.1	U	ng/L	P340939	MS, RPD
		Heptachlor	1.6	U	ng/L	P340939	
		Heptachlor Epoxide	2.1	U	ng/L	P340939	
		Methoxychlor	4.1	U	ng/L	P340939	
		Mirex	2.1	U	ng/L	P340939	
		Permethrin	10	U	ng/L	P340939	
		Trifluralin	1.0	U	ng/L	P340939	
		Alpha-Chlordane	1.0	U	ng/L	P340939	
		Gamma-Chlordane	1.0	U	ng/L	P340939	
		Endrin Ketone	2.1	U	ng/L	P340939	
		Dicofol	31	U	ng/L	P340939	
	EPA 8276	Chlordane**	2.6	U	ng/L	P340939	
		Toxaphene**	31	U	ng/L	P340939	
1971380	EPA 8270D	Alachlor	0.24	U	ng/L	P340974	
		Ametryn	0.31	U	ng/L	P340974	
		Atrazine	3.6		ng/L	P340974	
		Atrazine Desethyl	1.9	I	ng/L	P340974	
		Azinphos Methyl	2.1	U	ng/L	P340974	
		Bromacil	400	J	ng/L	P340974	LCS
		Butylate	0.38	U	ng/L	P340974	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P340974	
		Chlorpyrifos Methyl	0.095	U	ng/L	P340974	
		Demeton	1.9	U	ng/L	P340974	
		Diazinon	0.12	U	ng/L	P340974	
		Disulfoton	0.47	U	ng/L	P340974	
		EPTC	1.2	U	ng/L	P340974	
		Ethion	0.14	U	ng/L	P340974	
		Ethoprop	0.095	U	ng/L	P340974	
		Fenamiphos	0.24	U	ng/L	P340974	
		Fipronil	0.24	U	ng/L	P340974	
		Fipronil Sulfide	0.14	U	ng/L	P340974	
		Fipronil Sulfone	0.18	I	ng/L	P340974	
		Hexazinone	1.7	I	ng/L	P340974	
		Malathion	0.33	U	ng/L	P340974	
		Metribuzin	190	J	ng/L	P340974	LCS, MS
		Mevinphos	0.47	U	ng/L	P340974	
		Molinate	0.28	U	ng/L	P340974	
		Norflurazon	39		ng/L	P340974	
		Pendimethalin	0.95	U	ng/L	P340974	
		Phorate	0.24	U	ng/L	P340974	
		Prometon	0.85	U	ng/L	P340974	

Field ID: G2SW0037 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1971380	EPA 8270D	Prometryn	0.19	U	ng/L	P340974	
		Simazine	6.5		ng/L	P340974	
		Terbufos	0.095	U	ng/L	P340974	
		Terbuthylazine	0.40	U	ng/L	P340974	
		Fonofos	0.19	U	ng/L	P340974	
		Metalaxyl	13		ng/L	P340974	
		Metolachlor	340		ng/L	P340974	
		Acetochlor	0.24	U	ng/L	P340974	
		Cyanazine	0.47	U	ng/L	P340974	
		Parathion Ethyl	0.24	U	ng/L	P340974	
		Parathion Methyl	0.24	U	ng/L	P340974	

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 these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340899

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340900

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340962

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 200.7 Rev. 4.4
Batch ID: P341012

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340962

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340962

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341012

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341739

Component	Result	Code	Units
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342450

Component	Result	Code	Units
Copper	0.20	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341419

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341424

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340973

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341234

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341234

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340966

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341059

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340947

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341104

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340994

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341082

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340891

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340893

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P340939

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

Reference Method: EPA 8270D
Batch ID: P340974

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P340974

Component	Result	Code	Units
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 8276
Batch ID: P340939

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

Reference Method: EPA 8321B
Batch ID: P340783

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
Fluridone	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P340783

Component	Result	Code	Units
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340836

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340878

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

Reference Method: SM 2120 B
Batch ID: P340895

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P340896

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P341336

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

Reference Method: SM 2320 B-97
Batch ID: P341337

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

Reference Method: SM 2540 C-97
Batch ID: P341354

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P341464

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P341469

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341372

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341379

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341868

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P341527

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P341531

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P341045

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

Reference Method: SM 5310 B-00
Batch ID: P341047

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: P340962

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	99.4		P	85 - 115
Iron	107		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	102		P	85 - 115
Sodium	99.6		P	85 - 115
Zinc	98.8		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	109		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	103		P	85 - 115
Silver	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.2		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	100		P	85 - 115
Copper	98.5		P	85 - 115
Lead	108		P	85 - 115
Nickel	98.2		P	85 - 115
Silver	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341739

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	100		P	85 - 115
Nickel	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341419

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341419

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341424

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341234

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: P340966

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341059

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340947

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341104

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340994

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.4		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341082

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340891

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340893

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.1		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P340939

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	73.4	62.9	P/P	24 - 89.0
Alpha-BHC	95.2	83.9	P/P	58 - 117
Alpha-Chlordane	95.1	84.3	P/P	56 - 115
Beta-BHC	114	106	P/P	55 - 137
Carbophenothion	86.4	84.3	P/P	37 - 145
Chlorothalonil	132	81.6	P/P	26 - 163
Cypermethrin	94.8	84.7	P/P	42 - 156
DDD-p,p'	108	102	P/P	59 - 129
DDE-p,p'	94.3	83.6	P/P	52 - 117
DDT-p,p'	95.8	87.5	P/P	48 - 128
Delta-BHC	122	128	P/P	59 - 158
Dicofol	89.9	80.4	P/P	19 - 124
Dieldrin	99.8	88.8	P/P	57 - 126
Endosulfan I	91.5	86.6	P/P	59 - 133
Endosulfan II	124	116	P/P	58 - 148
Endosulfan Sulfate	116	101	P/P	56 - 135
Endrin	96.1	86.6	P/P	50 - 140
Endrin Aldehyde	101	90.5	P/P	47 - 141
Endrin Ketone	109	96.1	P/P	63 - 123
Gamma-BHC	102	89.2	P/P	59 - 132
Gamma-Chlordane	92.2	81.2	P/P	55 - 112
Heptachlor	77.1	66.5	P/P	45 - 102
Heptachlor Epoxide	96.8	85.9	P/P	61 - 116
Methoxychlor	99.8	93.2	P/P	60 - 133
Mirex	77.0	68.5	P/P	40 - 98.0
Permethrin	94.9	87.2	P/P	45 - 131
Trifluralin	81.8	73.1	P/P	38 - 179

Reference Method: EPA 8270D
Batch ID: P340974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	93.7	97.7	P/P	74 - 119
Alachlor	95.6	100	P/P	75 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P340974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ametryn	94.2	84.6	P/P	59 - 137
Atrazine	96.6	104	P/P	73 - 120
Atrazine Desethyl	116	118	P/P	19 - 129
Azinphos Methyl	113	118	P/P	65 - 181
Bromacil	39.3	52.1	F/P	43 - 123
Butylate	63.3	61.2	P/P	28 - 85.0
Chlorpyrifos Ethyl	91.8	99.7	P/P	55 - 112
Chlorpyrifos Methyl	98.1	105	P/P	35 - 124
Cyanazine	252	253	P/P	26 - 262
Demeton	75.2	90.8	P/P	43 - 122
Diazinon	98.4	103	P/P	72 - 120
Disulfoton	78.2	95.0	P/P	45 - 137
EPTC	61.4	60.1	P/P	28 - 95.0
Ethion	87.8	86.4	P/P	63 - 127
Ethoprop	97.9	102	P/P	63 - 109
Fenamiphos	94.8	102	P/P	66 - 136
Fipronil	96.1	102	P/P	63 - 126
Fipronil Sulfide	93.8	102	P/P	59 - 123
Fipronil Sulfone	88.6	94.6	P/P	56 - 122
Fonofos	94.7	98.6	P/P	64 - 114
Hexazinone	110	118	P/P	49 - 144
Malathion	91.6	95.0	P/P	68 - 131
Metalaxyl	94.3	101	P/P	57 - 126
Metolachlor	95.9	101	P/P	75 - 118
Metribuzin	169	189	P/F	46 - 169
Mevinphos	84.5	88.9	P/P	34 - 126
Molinate	67.0	67.9	P/P	37 - 101
Norflurazon	90.3	95.1	P/P	63 - 127
Parathion Ethyl	92.0	98.5	P/P	78 - 109
Parathion Methyl	100	104	P/P	74 - 123
Pendimethalin	104	112	P/P	51 - 130
Phorate	84.4	92.3	P/P	53 - 116
Prometon	87.4	92.2	P/P	66 - 124
Prometryn	93.9	100	P/P	66 - 124
Simazine	105	110	P/P	62 - 134
Terbufos	90.3	98.6	P/P	59 - 115
Terbuthylazine	96.3	103	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P340939

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.1	66.7	P/P	47 - 125
Toxaphene	87.8	81.2	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P340783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	85.1		P	40 - 150
3-Hydroxycarbofuran	100		P	40 - 150
Acetaminophen	107		P	30 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P340783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldicarb	82.3		P	30 - 150
Aldicarb Sulfone	102		P	40 - 150
Aldicarb Sulfoxide	103		P	40 - 150
Bentazon	105		P	30 - 150
Carbamazepine	87.8		P	40 - 150
Carbaryl	75.2		P	40 - 150
Carbofuran	81.7		P	40 - 150
Diuron	72.3		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	79.2		P	40 - 150
Imazapyr	83.7		P	40 - 150
Imidacloprid	96.7		P	40 - 160
Linuron	76.3		P	40 - 150
MCPP	77.2		P	40 - 150
Methiocarb	73.9		P	40 - 150
Methomyl	109		P	40 - 150
Oxamyl	98.8		P	40 - 150
Primidone	113		P	40 - 150
Propoxur	79.9		P	40 - 150
Pyraclostrobin	72.0		P	40 - 150
Triclopyr	78.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340836

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	110		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340878

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	104		P	40 - 150
Glyphosate	102		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P341336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.0		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P341337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P341527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P341531

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P341045

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

Reference Method: SM 5310 B-00
Batch ID: P341047

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971143	Calcium	99.8		P	80 - 120
1971143	Iron	107		P	80 - 120
1971143	Magnesium	104		P	80 - 120
1971143	Potassium	101		P	80 - 120
1971143	Sodium	100		P	80 - 120
1971143	Zinc	99.9		P	80 - 120
1971385	Calcium	101		P	80 - 120
1971385	Iron	108	109	P/P	80 - 120
1971385	Magnesium	101		P	80 - 120
1971385	Potassium	101		P	80 - 120
1971385	Sodium	100		P	80 - 120
1971385	Zinc	93.8	99.7	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971387	Iron	103	105	P/P	70 - 130
1971387	Zinc	99.4	101	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971143	Arsenic	102		P	80 - 120
1971143	Cadmium	106		P	80 - 120
1971143	Chromium	98.7		P	80 - 120
1971143	Silver	101		P	80 - 120
1971385	Arsenic	100	101	P/P	80 - 120
1971385	Cadmium	104	104	P/P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971385	Chromium	96.3	97.5	P/P	80 - 120
1971385	Silver	102	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971387	Arsenic	110	111	P/P	70 - 130
1971387	Cadmium	93.7	95.8	P/P	70 - 130
1971387	Chromium	90.2	89.6	P/P	70 - 130
1971387	Copper	103	103	P/P	70 - 130
1971387	Lead	114	116	P/P	70 - 130
1971387	Nickel	111	110	P/P	70 - 130
1971387	Silver	90.9	91.3	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1970810	Lead	100	101	P/P	80 - 120
1970810	Nickel	96.2	96.4	P/P	80 - 120
1970843	Lead	101		P	80 - 120
1970843	Nickel	94.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1970842	Copper	99.0		P	80 - 120
1978259	Copper	96.9	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341419

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971300	Chloride	96.9		P	90 - 110
1971301	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341424

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971300	Sulfate	97.4		P	90 - 110
1971301	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971304	Ammonia-N	100	103	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971356	Kjeldahl Nitrogen	95.9	92.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1970749	Kjeldahl Nitrogen	97.7	96.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971303	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1970749	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971356	Total-P	93.2	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971765	Total-P	97.4	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971307	O-Phosphate-P	94.8	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971363	O-Phosphate-P	98.1	99.6	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P340939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971343	Aldrin	71.3	59.5	P/P	26 - 96.0
1971343	Alpha-BHC	84.1	74.6	P/P	51 - 123
1971343	Alpha-Chlordane	92.3	77.1	P/P	45 - 120
1971343	Beta-BHC	94.6	97.4	P/P	43 - 146

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P340939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971343	Carbophenothion	140	98.2	P/P	26 - 179
1971343	Chlorothalonil	182	108	P/P	10 - 215
1971343	Cypermethrin	95.9	81.2	P/P	35 - 169
1971343	DDD-p,p'	105	87.8	P/P	49 - 131
1971343	DDE-p,p'	84.7	77.1	P/P	39 - 127
1971343	DDT-p,p'	89.4	75.2	P/P	49 - 120
1971343	Delta-BHC	113	111	P/P	49 - 187
1971343	Dicofol	81.3	75.8	P/P	10 - 129
1971343	Dieldrin	92.3	79.0	P/P	46 - 132
1971343	Endosulfan I	116	78.6	P/P	57 - 130
1971343	Endosulfan II	141	99.3	P/P	52 - 148
1971343	Endosulfan Sulfate	106	93.5	P/P	55 - 129
1971343	Endrin	93.7	73.7	P/P	45 - 133
1971343	Endrin Aldehyde	14.3	64.4	F/P	26 - 140
1971343	Endrin Ketone	102	89.3	P/P	60 - 125
1971343	Gamma-BHC	103	82.4	P/P	50 - 145
1971343	Gamma-Chlordane	90.9	75.8	P/P	44 - 118
1971343	Heptachlor	74.8	61.4	P/P	35 - 106
1971343	Heptachlor Epoxide	93.9	79.3	P/P	52 - 123
1971343	Methoxychlor	92.5	81.0	P/P	54 - 132
1971343	Mirex	76.8	66.4	P/P	36 - 107
1971343	Permethrin	97.5	87.8	P/P	47 - 135
1971343	Trifluralin	77.2	66.9	P/P	32 - 228

Reference Method: EPA 8270D
Batch ID: P340974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1970458	Acetochlor	100	92.9	P/P	67 - 125
1970458	Alachlor	100	97.8	P/P	69 - 123
1970458	Ametryn	109	107	P/P	52 - 151
1970458	Atrazine Desethyl	124	112	P/P	10 - 129
1970458	Azinphos Methyl	126	101	P/P	48 - 200
1970458	Bromacil	94.6	81.2	P/P	46 - 130
1970458	Butylate	70.1	58.3	P/P	10 - 85.0
1970458	Chlorpyrifos Ethyl	102	93.7	P/P	54 - 115
1970458	Chlorpyrifos Methyl	109	99.8	P/P	44 - 117
1970458	Cyanazine	234	209	P/P	10 - 262
1970458	Demeton	82.0	79.5	P/P	24 - 145
1970458	Diazinon	109	102	P/P	66 - 129
1970458	Disulfoton	88.9	81.2	P/P	45 - 139
1970458	EPTC	69.5	57.2	P/P	10 - 86.0
1970458	Ethion	89.9	83.7	P/P	59 - 133
1970458	Ethoprop	113	102	P/P	54 - 116
1970458	Fenamiphos	102	87.9	P/P	55 - 140
1970458	Fipronil	106	92.9	P/P	37 - 142
1970458	Fipronil Sulfide	108	94.4	P/P	37 - 130
1970458	Fonofos	107	96.7	P/P	55 - 118
1970458	Hexazinone	110	107	P/P	62 - 140
1970458	Malathion	106	92.8	P/P	64 - 132
1970458	Metalaxyl	107	93.7	P/P	55 - 129
1970458	Metolachlor	102	95.3	P/P	56 - 137

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P340974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1970458	Metribuzin	227	215	F/P	16 - 218
1970458	Mevinphos	101	85.2	P/P	34 - 129
1970458	Molinate	74.3	63.1	P/P	16 - 99.0
1970458	Norflurazon	100	88.4	P/P	43 - 135
1970458	Parathion Ethyl	104	94.5	P/P	71 - 112
1970458	Parathion Methyl	114	101	P/P	65 - 127
1970458	Pendimethalin	120	112	P/P	35 - 159
1970458	Phorate	97.2	89.3	P/P	41 - 129
1970458	Prometon	102	95.7	P/P	56 - 140
1970458	Prometryn	101	95.7	P/P	65 - 130
1970458	Terbufos	104	95.1	P/P	53 - 126
1970458	Terbuthylazine	106	100	P/P	73 - 114

Reference Method: EPA 8276
Batch ID: P340939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971482	Chlordane	76.9	73.8	P/P	41 - 134
1971482	Toxaphene	84.6	80.1	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P340783

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971130	2,4-D	51.6	49.8	P/P	40 - 150
1971130	3-Hydroxycarbofuran	95.2	108	P/P	40 - 150
1971130	Acetaminophen	121	131	P/P	30 - 150
1971130	Aldicarb	70.6	80.1	P/P	30 - 150
1971130	Aldicarb Sulfone	114	119	P/P	40 - 150
1971130	Aldicarb Sulfoxide	93.9	105	P/P	40 - 150
1971130	Bentazon	20.6	22.8	F/F	30 - 150
1971130	Carbamazepine	94.5	107	P/P	40 - 150
1971130	Carbaryl	61.6	65.9	P/P	40 - 150
1971130	Carbofuran	67.6	73.2	P/P	40 - 150
1971130	Diuron	67.2	78.2	P/P	40 - 150
1971130	Fenuron	97.9	104	P/P	40 - 150
1971130	Fluridone	69.2	74.1	P/P	40 - 150
1971130	Imazapyr	65.9	82.1	P/P	40 - 150
1971130	Imidacloprid	140	165	P/F	40 - 160
1971130	Linuron	77.3	78.2	P/P	40 - 150
1971130	MCPP	40.9	32.9	P/F	40 - 150
1971130	Methiocarb	75.9	80.1	P/P	40 - 150
1971130	Methomyl	106	108	P/P	40 - 150
1971130	Oxamyl	90.3	99.8	P/P	40 - 150
1971130	Primidone	107	122	P/P	40 - 150
1971130	Propoxur	64.9	75.0	P/P	40 - 150
1971130	Pyraclostrobin	72.6	73.0	P/P	40 - 150
1971130	Triclopyr	52.4	42.9	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P340836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971023	Sucralose	144	144	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971373	AMPA	81.5	78.3	P/P	40 - 150
1971373	Glyphosate	95.8	87.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P341527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971311	Fluoride	96.0	96.0	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P341531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972414	Fluoride	95.7	97.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P341045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971306	Organic Carbon	94.0	95.6	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P341047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971360	Organic Carbon	94.5	94.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971272	Turbidity	0.635	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971359	Turbidity	6.11	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971385	Calcium	1.22	Spike	P	0 - 20
1971385	Iron	1.24	Spike	P	0 - 20
1971385	Magnesium	1.74	Spike	P	0 - 20
1971385	Potassium	1.70	Spike	P	0 - 20
1971385	Sodium	1.39	Spike	P	0 - 20
1971385	Zinc	6.12	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971387	Iron	1.60	Spike	P	0 - 20
1971387	Zinc	1.69	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971385	Arsenic	0.990	Spike	P	0 - 20
1971385	Cadmium	0.0614	Spike	P	0 - 20
1971385	Chromium	1.20	Spike	P	0 - 20
1971385	Silver	0.496	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971387	Arsenic	1.26	Spike	P	0 - 20
1971387	Cadmium	2.24	Spike	P	0 - 20
1971387	Chromium	0.623	Spike	P	0 - 20
1971387	Copper	0.780	Spike	P	0 - 20
1971387	Lead	2.02	Spike	P	0 - 20
1971387	Nickel	0.666	Spike	P	0 - 20
1971387	Silver	0.433	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1970810	Lead	0.547	Spike	P	0 - 20
1970810	Nickel	0.199	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978259	Copper	3.82	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971300	Chloride	3.92	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971300	Sulfate	5.09	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971361	Ammonia-N	0.377	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971304	Ammonia-N	2.02	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971356	Kjeldahl Nitrogen	2.67	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1970749	Kjeldahl Nitrogen	0.618	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971303	NO2NO3-N	1.47	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1970749	NO2NO3-N	1.36	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971356	Total-P	2.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971765	Total-P	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971307	O-Phosphate-P	1.67	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971363	O-Phosphate-P	0.820	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P340939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971343	Aldrin	18.1	Spike	P	0 - 30
1971343	Alpha-BHC	12.0	Spike	P	0 - 30
1971343	Alpha-Chlordane	17.9	Spike	P	0 - 30
1971343	Beta-BHC	2.87	Spike	P	0 - 30
1971343	Carbophenothion	35.0	Spike	F	0 - 30
1971343	Chlorothalonil	50.8	Spike	F	0 - 30
1971343	Cypermethrin	16.6	Spike	P	0 - 30
1971343	DDD-p,p'	17.7	Spike	P	0 - 30
1971343	DDE-p,p'	9.46	Spike	P	0 - 30
1971343	DDT-p,p'	17.2	Spike	P	0 - 30
1971343	Delta-BHC	1.85	Spike	P	0 - 30
1971343	Dicofol	6.94	Spike	P	0 - 30
1971343	Dieldrin	11.2	Spike	P	0 - 30
1971343	Endosulfan I	38.5	Spike	F	0 - 30
1971343	Endosulfan II	34.5	Spike	F	0 - 30
1971343	Endosulfan Sulfate	12.9	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P340939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971343	Endrin	23.9	Spike	P	0 - 30
1971343	Endrin Aldehyde	127	Spike	F	0 - 30
1971343	Endrin Ketone	12.8	Spike	P	0 - 30
1971343	Gamma-BHC	22.0	Spike	P	0 - 30
1971343	Gamma-Chlordane	18.1	Spike	P	0 - 30
1971343	Heptachlor	19.8	Spike	P	0 - 30
1971343	Heptachlor Epoxide	14.3	Spike	P	0 - 30
1971343	Methoxychlor	13.2	Spike	P	0 - 30
1971343	Mirex	14.5	Spike	P	0 - 30
1971343	Permethrin	10.5	Spike	P	0 - 30
1971343	Trifluralin	14.4	Spike	P	0 - 30
LFB	Aldrin	15.4	LCS	P	0 - 30
LFB	Alpha-BHC	12.5	LCS	P	0 - 30
LFB	Alpha-Chlordane	12.1	LCS	P	0 - 30
LFB	Beta-BHC	7.23	LCS	P	0 - 30
LFB	Carbophenothion	2.43	LCS	P	0 - 30
LFB	Chlorothalonil	47.2	LCS	F	0 - 30
LFB	Cypermethrin	11.3	LCS	P	0 - 30
LFB	DDD-p,p'	5.63	LCS	P	0 - 30
LFB	DDE-p,p'	12.0	LCS	P	0 - 30
LFB	DDT-p,p'	9.12	LCS	P	0 - 30
LFB	Delta-BHC	5.54	LCS	P	0 - 30
LFB	Dicofol	11.2	LCS	P	0 - 30
LFB	Dieldrin	11.7	LCS	P	0 - 30
LFB	Endosulfan I	5.50	LCS	P	0 - 30
LFB	Endosulfan II	6.38	LCS	P	0 - 30
LFB	Endosulfan Sulfate	13.7	LCS	P	0 - 30
LFB	Endrin	10.4	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.0	LCS	P	0 - 30
LFB	Endrin Ketone	13.0	LCS	P	0 - 30
LFB	Gamma-BHC	13.2	LCS	P	0 - 30
LFB	Gamma-Chlordane	12.7	LCS	P	0 - 30
LFB	Heptachlor	14.9	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.9	LCS	P	0 - 30
LFB	Methoxychlor	6.90	LCS	P	0 - 30
LFB	Mirex	11.7	LCS	P	0 - 30
LFB	Permethrin	8.47	LCS	P	0 - 30
LFB	Trifluralin	11.2	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P340974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1970458	Acetochlor	7.74	Spike	P	0 - 30
1970458	Alachlor	2.45	Spike	P	0 - 30
1970458	Ametryn	1.60	Spike	P	0 - 30
1970458	Atrazine	11.0	Spike	P	0 - 30
1970458	Atrazine Desethyl	7.47	Spike	P	0 - 30
1970458	Azinphos Methyl	21.5	Spike	P	0 - 30
1970458	Bromacil	10.3	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P340974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1970458	Butylate	18.3	Spike	P	0 - 30
1970458	Chlorpyrifos Ethyl	8.41	Spike	P	0 - 30
1970458	Chlorpyrifos Methyl	8.44	Spike	P	0 - 30
1970458	Cyanazine	11.3	Spike	P	0 - 30
1970458	Demeton	3.09	Spike	P	0 - 30
1970458	Diazinon	6.86	Spike	P	0 - 30
1970458	Disulfoton	9.02	Spike	P	0 - 30
1970458	EPTC	19.4	Spike	P	0 - 30
1970458	Ethion	7.24	Spike	P	0 - 30
1970458	Ethoprop	9.87	Spike	P	0 - 30
1970458	Fenamiphos	15.3	Spike	P	0 - 30
1970458	Fipronil	10.9	Spike	P	0 - 30
1970458	Fipronil Sulfide	9.95	Spike	P	0 - 30
1970458	Fipronil Sulfone	12.3	Spike	P	0 - 30
1970458	Fonofos	10.2	Spike	P	0 - 30
1970458	Hexazinone	2.85	Spike	P	0 - 30
1970458	Malathion	12.9	Spike	P	0 - 30
1970458	Metalaxyl	12.9	Spike	P	0 - 30
1970458	Metolachlor	6.53	Spike	P	0 - 30
1970458	Metribuzin	5.67	Spike	P	0 - 30
1970458	Mevinphos	16.7	Spike	P	0 - 30
1970458	Molinate	16.3	Spike	P	0 - 30
1970458	Norflurazon	12.6	Spike	P	0 - 30
1970458	Parathion Ethyl	9.65	Spike	P	0 - 30
1970458	Parathion Methyl	12.7	Spike	P	0 - 30
1970458	Pendimethalin	6.31	Spike	P	0 - 30
1970458	Phorate	8.56	Spike	P	0 - 30
1970458	Prometon	6.41	Spike	P	0 - 30
1970458	Prometryn	5.13	Spike	P	0 - 30
1970458	Simazine	8.31	Spike	P	0 - 30
1970458	Terbufos	8.51	Spike	P	0 - 30
1970458	Terbuthylazine	5.72	Spike	P	0 - 30
LFB	Acetochlor	4.16	LCS	P	0 - 30
LFB	Alachlor	4.82	LCS	P	0 - 30
LFB	Ametryn	10.8	LCS	P	0 - 30
LFB	Atrazine	7.49	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.96	LCS	P	0 - 30
LFB	Azinphos Methyl	4.84	LCS	P	0 - 30
LFB	Bromacil	27.9	LCS	P	0 - 30
LFB	Butylate	3.39	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	8.17	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.89	LCS	P	0 - 30
LFB	Cyanazine	0.141	LCS	P	0 - 30
LFB	Demeton	18.8	LCS	P	0 - 30
LFB	Diazinon	4.70	LCS	P	0 - 30
LFB	Disulfoton	19.4	LCS	P	0 - 30
LFB	EPTC	2.08	LCS	P	0 - 30
LFB	Ethion	1.60	LCS	P	0 - 30
LFB	Ethoprop	4.19	LCS	P	0 - 30
LFB	Fenamiphos	6.93	LCS	P	0 - 30
LFB	Fipronil	5.79	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P340974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	8.21	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.53	LCS	P	0 - 30
LFB	Fonofos	4.02	LCS	P	0 - 30
LFB	Hexazinone	6.69	LCS	P	0 - 30
LFB	Malathion	3.73	LCS	P	0 - 30
LFB	Metalaxyl	7.06	LCS	P	0 - 30
LFB	Metolachlor	4.98	LCS	P	0 - 30
LFB	Metribuzin	11.2	LCS	P	0 - 30
LFB	Mevinphos	5.03	LCS	P	0 - 30
LFB	Molinate	1.26	LCS	P	0 - 30
LFB	Norflurazon	5.21	LCS	P	0 - 30
LFB	Parathion Ethyl	6.78	LCS	P	0 - 30
LFB	Parathion Methyl	3.80	LCS	P	0 - 30
LFB	Pendimethalin	6.99	LCS	P	0 - 30
LFB	Phorate	9.03	LCS	P	0 - 30
LFB	Prometon	5.37	LCS	P	0 - 30
LFB	Prometryn	6.53	LCS	P	0 - 30
LFB	Simazine	4.33	LCS	P	0 - 30
LFB	Terbufos	8.77	LCS	P	0 - 30
LFB	Terbuthylazine	6.32	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P340939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971482	Chlordane	4.05	Spike	P	0 - 30
1971482	Toxaphene	5.48	Spike	P	0 - 30
LFB	Chlordane	16.9	LCS	P	0 - 30
LFB	Toxaphene	7.91	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971130	2,4-D	3.52	Spike	P	0 - 30
1971130	3-Hydroxycarbofuran	12.2	Spike	P	0 - 30
1971130	Acetaminophen	7.80	Spike	P	0 - 30
1971130	Aldicarb	12.6	Spike	P	0 - 30
1971130	Aldicarb Sulfone	4.37	Spike	P	0 - 30
1971130	Aldicarb Sulfoxide	11.4	Spike	P	0 - 30
1971130	Bentazon	9.45	Spike	P	0 - 30
1971130	Carbamazepine	12.1	Spike	P	0 - 30
1971130	Carbaryl	6.76	Spike	P	0 - 30
1971130	Carbofuran	7.90	Spike	P	0 - 30
1971130	Diuron	15.2	Spike	P	0 - 30
1971130	Fenuron	5.63	Spike	P	0 - 30
1971130	Fluridone	6.94	Spike	P	0 - 30
1971130	Imazapyr	19.3	Spike	P	0 - 30
1971130	Imidacloprid	11.9	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P340783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971130	Linuron	1.06	Spike	P	0 - 30
1971130	MCPP	21.5	Spike	P	0 - 30
1971130	Methiocarb	5.39	Spike	P	0 - 30
1971130	Methomyl	1.97	Spike	P	0 - 30
1971130	Oxamyl	9.94	Spike	P	0 - 30
1971130	Primidone	13.5	Spike	P	0 - 30
1971130	Propoxur	14.4	Spike	P	0 - 30
1971130	Pyraclostrobin	0.579	Spike	P	0 - 30
1971130	Triclopyr	19.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971023	Sucralose	0.230	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971373	AMPA	3.05	Spike	P	0 - 30
1971373	Glyphosate	8.08	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P340895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971272	Color (true)	1.41	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P340896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971396	Color (true)	4.90	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P341336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971311	Total Alkalinity	0.476	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P341337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P341337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972478	Total Alkalinity	0.490	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P341354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971311	TDS	2.32	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P341464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971302	TDS	5.05	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P341469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972113	TDS	6.17	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P341868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974891	TSS	9.23	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P341527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971311	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P341531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972414	Fluoride	1.46	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P341045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971306	Organic Carbon	0.929	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: 1971372
Field Sample ID: G2SW0037

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	46.0	P	30 - 160

Lab Sample ID: 1971373
Field Sample ID: G2SW0037

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.4	P	30 - 160
EPA 8321B	2,4-D-d3	57.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	135	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.5	P	30 - 160
EPA 8321B	Diuron-d6	76.5	P	30 - 160
EPA 8321B	Diuron-d6	76.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	40 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	40 - 160

Lab Sample ID: 1971374
Field Sample ID: G1SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	45.5	P	30 - 160

Lab Sample ID: 1971375
Field Sample ID: G1SW0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	47.3	P	30 - 160

Lab Sample ID: 1971376
Field Sample ID: G1SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	37.8	P	30 - 160
EPA 8321B	2,4-D-d3	37.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.8	P	30 - 160
EPA 8321B	Diuron-d6	68.7	P	30 - 160
EPA 8321B	Diuron-d6	68.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	2.39	F	40 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 1971376
Field Sample ID: G1SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	2.39	F	40 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	99.2	P	40 - 160

Lab Sample ID: 1971377
Field Sample ID: G1SW0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	39.5	P	30 - 160
EPA 8321B	2,4-D-d3	39.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	150	P	30 - 160
EPA 8321B	Acetaminophen-d4	150	P	30 - 160
EPA 8321B	Carbamazepine-d10	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	102	P	30 - 160
EPA 8321B	Diuron-d6	89.7	P	30 - 160
EPA 8321B	Diuron-d6	89.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	1.50	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	1.50	F	40 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Sucralose-d6	92.6	P	40 - 160

Lab Sample ID: 1971378
Field Sample ID: G1SW0091

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	59.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	143	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.4	P	30 - 160
EPA 8321B	Diuron-d6	64.8	P	30 - 160
EPA 8321B	Primidone-d5	88.6	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 1971379
Field Sample ID: G2SW0037

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	66.5	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	46.9	P	34 - 101
EPA 8276	Decachlorobiphenyl	57.2	P	31 - 108
EPA 8276	PCNB	106	P	62 - 142

Lab Sample ID: 1971380
Field Sample ID: G2SW0037

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	95.0	P	71 - 126
EPA 8270D	Terbufos-d10	88.5	P	50 - 130

Quality Assurance Report
Surrogates

Lab Sample ID: 1971381
Field Sample ID: G1SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	63.0	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	41.7	P	34 - 101
EPA 8276	Decachlorobiphenyl	51.5	P	31 - 108
EPA 8276	PCNB	114	P	62 - 142

Lab Sample ID: 1971382
Field Sample ID: G1SW0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	69.2	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	46.2	P	34 - 101
EPA 8276	Decachlorobiphenyl	52.2	P	31 - 108
EPA 8276	PCNB	108	P	62 - 142

Lab Sample ID: 1971383
Field Sample ID: G1SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	114	P	71 - 126
EPA 8270D	Terbufos-d10	107	P	50 - 130

Lab Sample ID: 1971384
Field Sample ID: G1SW0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	115	P	71 - 126
EPA 8270D	Terbufos-d10	101	P	50 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82409
Included Lab Sample IDs: 1971357, 1971362, 1971363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	99.9	101	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A82410
Included Lab Sample IDs: 1971355, 1971358, 1971359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.8	99.3	P/P	85 - 115
Color (true)	99.3	99.3	P/P	85 - 115

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82411
Included Lab Sample IDs: 1971355, 1971358, 1971359

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

Reference Method: EPA 8321B
Run ID: A82414
Included Lab Sample IDs: 1971373, 1971376, 1971377, 1971378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	108	102	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82428
Included Lab Sample IDs: 1971356

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82431
Included Lab Sample IDs: 1971360, 1971361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.9	P/P	90 - 110
Ammonia-N	98.8	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82464
Included Lab Sample IDs: 1971356

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

Reference Method: SM 5310 B-00
Run ID: A82470
Included Lab Sample IDs: 1971356, 1971360, 1971361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	96.8	P/P	90 - 110
Organic Carbon	96.2	95.7	P/P	90 - 110
Organic Carbon	96.8	96.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A82477
Included Lab Sample IDs: 1971356

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	105	P/P	90 - 110

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Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82478
Included Lab Sample IDs: 1971360, 1971361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A82481
Included Lab Sample IDs: 1971373, 1971376, 1971377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	71.7	70.9	P/P	70 - 130
Glyphosate	93.3	110	P/P	70 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82494
Included Lab Sample IDs: 1971360, 1971361

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A82501
Included Lab Sample IDs: 1971360, 1971361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	109	P/P	90 - 110
Kjeldahl Nitrogen	109	106	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A82509
Included Lab Sample IDs: 1971355, 1971358, 1971359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	95.8	P/P	90 - 110
Chloride	95.8	100	P/P	90 - 110
Sulfate	102	96.8	P/P	90 - 110
Sulfate	96.8	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82510
Included Lab Sample IDs: 1971356

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A82512
Included Lab Sample IDs: 1971385, 1971386, 1971387

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A82512
Included Lab Sample IDs: 1971385, 1971386, 1971387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	102	103	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Zinc	101	101	P/P	90 - 110
Zinc	102	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A82534
Included Lab Sample IDs: 1971373, 1971376, 1971377, 1971378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.6	95.6	P/P	50 - 150
Acetaminophen	102	99.0	P/P	60 - 150
Acetaminophen	99.0	102	P/P	60 - 150
Bentazon	103	89.9	P/P	50 - 150
Carbamazepine	110	118	P/P	60 - 150
Carbamazepine	118	108	P/P	60 - 150
Diuron	118	104	P/P	60 - 150
Diuron	126	118	P/P	60 - 150
Fenuron	103	99.8	P/P	60 - 150
Fenuron	99.8	99.0	P/P	60 - 150
Fluridone	108	120	P/P	60 - 160
Fluridone	109	108	P/P	60 - 160
Imazapyr	87.8	94.4	P/P	50 - 150
Imazapyr	94.4	94.0	P/P	50 - 150
Imidacloprid	105	108	P/P	60 - 150
Imidacloprid	108	112	P/P	60 - 150
Linuron	109	102	P/P	60 - 150
Linuron	99.9	109	P/P	60 - 150
MCPP	104	91.8	P/P	50 - 150
Primidone	110	116	P/P	60 - 150
Primidone	96.8	110	P/P	60 - 150
Pyraclostrobin	99.2	99.7	P/P	60 - 150
Pyraclostrobin	99.7	106	P/P	60 - 150
Triclopyr	105	107	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A82540
Included Lab Sample IDs: 1971385, 1971386, 1971387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	104	P/P	90 - 110
Arsenic	98.3	97.8	P/P	90 - 110
Cadmium	98.5	100	P/P	90 - 110
Cadmium	99.2	99.0	P/P	90 - 110
Chromium	94.0	93.0	P/P	90 - 110
Chromium	95.0	94.3	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Lead	106	107	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Silver	102	105	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A82543
Included Lab Sample IDs: 1971355, 1971358, 1971359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.0	107	P/P	90 - 110
Total Alkalinity	99.4	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A82580
Included Lab Sample IDs: 1971372, 1971374, 1971375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	108	103	P/P	60 - 150
Aldicarb	87.9	106	P/P	60 - 150
Aldicarb Sulfone	106	105	P/P	50 - 150
Aldicarb Sulfoxide	99.0	99.6	P/P	50 - 150
Carbaryl	114	114	P/P	60 - 150
Carbofuran	118	116	P/P	50 - 150
Methiocarb	114	118	P/P	50 - 150
Methomyl	101	97.3	P/P	50 - 150
Oxamyl	101	96.6	P/P	50 - 150
Propoxur	108	117	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A82593
Included Lab Sample IDs: 1971379, 1971381, 1971382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	86.4		P	80 - 120
Toxaphene	82.7		P	80 - 120

Reference Method: SM 4500 F-C-97
Run ID: A82604
Included Lab Sample IDs: 1971355, 1971358, 1971359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	101	P/P	90 - 110
Fluoride	99.0	101	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A82659
Included Lab Sample IDs: 1971379, 1971381, 1971382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	90.3		P	80 - 120
Carbophenothion	84.4		P	80 - 120
Chlorothalonil	99.2		P	80 - 120
Cypermethrin	82.7		P	80 - 120
DDD-p,p'	99.9		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	97.0		P	80 - 120

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Calibration Verification

Reference Method: EPA 8270D
Run ID: A82659
Included Lab Sample IDs: 1971379, 1971381, 1971382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dicofol	102		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	93.7		P	80 - 120
Endosulfan II	107		P	80 - 120
Endosulfan Sulfate	94.9		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	93.7		P	80 - 120
Endrin Ketone	92.8		P	80 - 120
Gamma-BHC	98.5		P	80 - 120
Gamma-Chlordane	99.3		P	80 - 120
Heptachlor	97.2		P	80 - 120
Heptachlor Epoxide	99.8		P	80 - 120
Methoxychlor	103		P	80 - 120
Mirex	97.6		P	80 - 120
Permethrin	92.3		P	80 - 120
Trifluralin	99.0		P	80 - 120

Reference Method: EPA 8270D
Run ID: A82686
Included Lab Sample IDs: 1971380, 1971383, 1971384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.0		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	95.8		P	80 - 120
Atrazine	93.0		P	80 - 120
Atrazine Desethyl	97.6		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Bromacil	97.9		P	80 - 120
Butylate	97.2		P	80 - 120
Chlorpyrifos Ethyl	97.5		P	80 - 120
Chlorpyrifos Methyl	98.6		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	95.1		P	80 - 120
Diazinon	97.3		P	80 - 120
Disulfoton	95.7		P	80 - 120
EPTC	98.7		P	80 - 120
Ethion	93.3		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	97.8		P	80 - 120
Fipronil	96.0		P	80 - 120
Fipronil Sulfide	96.4		P	80 - 120
Fipronil Sulfone	95.0		P	80 - 120
Fonofos	97.6		P	80 - 120
Hexazinone	93.2		P	80 - 120
Malathion	99.5		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	96.6		P	80 - 120
Molinate	98.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A82686
Included Lab Sample IDs: 1971380, 1971383, 1971384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	96.5		P	80 - 120
Parathion Ethyl	91.9		P	80 - 120
Parathion Methyl	94.2		P	80 - 120
Pendimethalin	99.1		P	80 - 120
Phorate	95.4		P	80 - 120
Prometon	97.9		P	80 - 120
Prometryn	101		P	80 - 120
Simazine	96.3		P	80 - 120
Terbufos	97.2		P	80 - 120
Terbuthylazine	98.6		P	80 - 120

Reference Method: EPA 8270D
Run ID: A82725
Included Lab Sample IDs: 1971380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	104		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	85.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A82878
Included Lab Sample IDs: 1971385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	95.5	95.4	P/P	90 - 110
Nickel	94.2	94.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A83056
Included Lab Sample IDs: 1971385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	102	103	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			Precision		
						LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.635	
	Turbidity						6.11	
EPA 200.7 Rev. 4.4	Calcium	99.4	99.8	101				1.22
	Iron	107	107	108	109			1.24
	Iron	109	103	105				1.60
	Magnesium	103	104	101				1.74

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 200.7 Rev. 4.4	Potassium	102		101	101				1.70
	Sodium	99.6		100	100				1.39
	Zinc	98.8		99.9	93.8	99.7			6.12
	Zinc	100		99.4	101				1.69
EPA 200.8 Rev. 5.4	Arsenic	103		102	100	101			0.990
	Arsenic	99.2		110	111				1.26
	Cadmium	106		106	104	104			0.0614
	Cadmium	103		93.7	95.8				2.24
	Chromium	103		98.7	96.3	97.5			1.20
	Chromium	100		90.2	89.6				0.623
	Copper	98.5		103	103				0.780
	Copper	107		99.0	96.9	101			3.82
	Lead	108		114	116				2.02
	Lead	100		100	101	101			0.547
	Nickel	98.2		111	110				0.666
	Nickel	101		96.2	96.4	94.1			0.199
	Silver	103		101	102	101			0.496
	Silver	100		90.9	91.3				0.433
EPA 300.0 Rev. 2.1	Chloride	97.1		96.9	97.6			3.92	
	Sulfate	98.0		97.4	98.2			5.09	
EPA 350.1 Rev. 2.0	Ammonia-N	94.0							0.377
	Ammonia-N	100		100	103				2.02
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104		95.9	92.3				2.67
	Kjeldahl Nitrogen	104		97.7	96.9				0.618
EPA 353.2 Rev. 2.0	NO2NO3-N	100		101	102				1.47
	NO2NO3-N	103		102	104				1.36
EPA 365.1 Rev. 2.0	Total-P	97.4		93.2	97.2				2.54
	Total-P	101		97.4	95.6				1.50
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.9		94.8	96.4				1.67
	O-Phosphate-P	98.1		98.1	99.6				0.820
EPA 8270D	Acetochlor	93.7	97.7	100	92.9		4.16		7.74
	Alachlor	95.6	100	100	97.8		4.82		2.45
	Aldrin	73.4	62.9	71.3	59.5		15.4		18.1
	Alpha-BHC	95.2	83.9	84.1	74.6		12.5		12.0
	Alpha-Chlordane	95.1	84.3	92.3	77.1		12.1		17.9
	Ametryn	94.2	84.6	109	107		10.8		1.60
	Atrazine	96.6	104				7.49		11.0
	Atrazine Desethyl	116	118	124	112		1.96		7.47
	Azinphos Methyl	113	118	126	101		4.84		21.5
	Beta-BHC	114	106	94.6	97.4		7.23		2.87
	Bromacil	39.3	52.1	94.6	81.2		27.9		10.3
	Butylate	63.3	61.2	70.1	58.3		3.39		18.3
	Carbophenothion	86.4	84.3	140	98.2		2.43		35.0
	Chlorothalonil	132	81.6	182	108		47.2		50.8
	Chlorpyrifos Ethyl	91.8	99.7	102	93.7		8.17		8.41
	Chlorpyrifos Methyl	98.1	105	109	99.8		6.89		8.44
	Cyanazine	252	253	234	209		0.141		11.3
	Cypermethrin	94.8	84.7	95.9	81.2		11.3		16.6
	DDD-p,p'	108	102	105	87.8		5.63		17.7
	DDE-p,p'	94.3	83.6	84.7	77.1		12.0		9.46
	DDT-p,p'	95.8	87.5	89.4	75.2		9.12		17.2
	Delta-BHC	122	128	113	111		5.54		1.85
	Demeton	75.2	90.8	82.0	79.5		18.8		3.09
	Diazinon	98.4	103	109	102		4.70		6.86

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Dicofol	89.9	80.4	81.3	75.8	11.2		6.94
	Dieldrin	99.8	88.8	92.3	79.0	11.7		11.2
	Disulfoton	78.2	95.0	88.9	81.2	19.4		9.02
	Endosulfan I	91.5	86.6	116	78.6	5.50		38.5
	Endosulfan II	124	116	141	99.3	6.38		34.5
	Endosulfan Sulfate	116	101	106	93.5	13.7		12.9
	Endrin	96.1	86.6	93.7	73.7	10.4		23.9
	Endrin Aldehyde	101	90.5	14.3	64.4	11.0		127
	Endrin Ketone	109	96.1	102	89.3	13.0		12.8
	EPTC	61.4	60.1	69.5	57.2	2.08		19.4
	Ethion	87.8	86.4	89.9	83.7	1.60		7.24
	Ethoprop	97.9	102	113	102	4.19		9.87
	Fenamiphos	94.8	102	102	87.9	6.93		15.3
	Fipronil	96.1	102	106	92.9	5.79		10.9
	Fipronil Sulfide	93.8	102	108	94.4	8.21		9.95
	Fipronil Sulfone	88.6	94.6			6.53		12.3
	Fonofos	94.7	98.6	107	96.7	4.02		10.2
	Gamma-BHC	102	89.2	103	82.4	13.2		22.0
	Gamma-Chlordane	92.2	81.2	90.9	75.8	12.7		18.1
	Heptachlor	77.1	66.5	74.8	61.4	14.9		19.8
	Heptachlor Epoxide	96.8	85.9	93.9	79.3	11.9		14.3
	Hexazinone	110	118	110	107	6.69		2.85
	Malathion	91.6	95.0	106	92.8	3.73		12.9
	Metalaxyl	94.3	101	107	93.7	7.06		12.9
	Methoxychlor	99.8	93.2	92.5	81.0	6.90		13.2
	Metolachlor	95.9	101	102	95.3	4.98		6.53
	Metribuzin	169	189	227	215	11.2		5.67
	Mevinphos	84.5	88.9	101	85.2	5.03		16.7
	Mirex	77.0	68.5	76.8	66.4	11.7		14.5
	Molinate	67.0	67.9	74.3	63.1	1.26		16.3
	Norflurazon	90.3	95.1	100	88.4	5.21		12.6
	Parathion Ethyl	92.0	98.5	104	94.5	6.78		9.65
	Parathion Methyl	100	104	114	101	3.80		12.7
	Pendimethalin	104	112	120	112	6.99		6.31
	Permethrin	94.9	87.2	97.5	87.8	8.47		10.5
	Phorate	84.4	92.3	97.2	89.3	9.03		8.56
	Prometon	87.4	92.2	102	95.7	5.37		6.41
	Prometryn	93.9	100	101	95.7	6.53		5.13
	Simazine	105	110			4.33		8.31
	Terbufos	90.3	98.6	104	95.1	8.77		8.51
	Terbuthylazine	96.3	103	106	100	6.32		5.72
	Trifluralin	81.8	73.1	77.2	66.9	11.2		14.4
EPA 8276	Chlordane	79.1	66.7	76.9	73.8	16.9		4.05
	Toxaphene	87.8	81.2	84.6	80.1	7.91		5.48
EPA 8321B	2,4-D	85.1		51.6	49.8			3.52
	3-Hydroxycarbofuran	100		95.2	108			12.2
	Acetaminophen	107		121	131			7.80
	Aldicarb	82.3		70.6	80.1			12.6
	Aldicarb Sulfone	102		114	119			4.37
	Aldicarb Sulfoxide	103		93.9	105			11.4
	AMPA	104		81.5	78.3			3.05
	Bentazon	105		20.6	22.8			9.45
	Carbamazepine	87.8		94.5	107			12.1
	Carbaryl	75.2		61.6	65.9			6.76

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Carbofuran	81.7	67.6	73.2			7.90
	Diuron	72.3	67.2	78.2			15.2
	Fenuron	112	97.9	104			5.63
	Fluridone	79.2	69.2	74.1			6.94
	Glyphosate	102	95.8	87.4			8.08
	Imazapyr	83.7	65.9	82.1			19.3
	Imidacloprid	96.7	140	165			11.9
	Linuron	76.3	77.3	78.2			1.06
	MCPP	77.2	40.9	32.9			21.5
	Methiocarb	73.9	75.9	80.1			5.39
	Methomyl	109	106	108			1.97
	Oxamyl	98.8	90.3	99.8			9.94
	Primidone	113	107	122			13.5
	Propoxur	79.9	64.9	75.0			14.4
	Pyraclostrobin	72.0	72.6	73.0			0.579
	Sucralose	110	144	144			0.230
	Triclopyr	78.4	52.4	42.9			19.8
SM 2120 B	Color (true)					1.41	
	Color (true)					4.90	
SM 2320 B-97	Total Alkalinity	99.0				0.476	
	Total Alkalinity	99.3				0.490	
SM 2540 C-97	TDS					2.32	
	TDS					5.05	
	TDS					6.17	
SM 2540 D-97	TSS					9.23	
SM 4500 F-C-97	Fluoride	97.6	96.0	96.0			0.0
	Fluoride	98.1	95.7	97.7			1.46
SM 5310 B-00	Organic Carbon	95.6	94.0	95.6			0.929
	Organic Carbon	96.6	94.5	94.1			

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1971355, 1971358, 1971359
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1971385, 1971386, 1971387
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1971385, 1971386, 1971387
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1971355, 1971358, 1971359
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1971355, 1971358, 1971359
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1971356, 1971360, 1971361
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1971356, 1971360, 1971361
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1971356, 1971360, 1971361
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1971356, 1971360, 1971361
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1971357, 1971362, 1971363
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1971379, 1971381, 1971382

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	1971380, 1971383, 1971384
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1971379, 1971381, 1971382
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1971372, 1971374, 1971375
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1971373, 1971376, 1971377
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1971373, 1971376, 1971377, 1971378
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1971373, 1971376, 1971377, 1971378
SM 2120 B / E31780	True Color measured at 450 nm	1971355, 1971358, 1971359
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1971355, 1971358, 1971359
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1971355, 1971358, 1971359
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1971355, 1971358, 1971359
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1971355, 1971358, 1971359
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1971356, 1971360, 1971361

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	03/02/2018			03/02/2018 14:59	Tanya Welborn	1971355, 1971358, 1971359
EPA 200.7 Rev. 4.4	03/02/2018	03/05/2018	Elliott D. Healy	03/08/2018	Betina Topolski	1971385
	03/02/2018	03/06/2018	Elliott D. Healy	03/09/2018	Betina Topolski	1971386, 1971387
EPA 200.8 Rev. 5.4	03/02/2018	03/05/2018	Elliott D. Healy	03/09/2018	Nadine Brooks	1971385
	03/02/2018	03/06/2018	Elliott D. Healy	03/10/2018	Nadine Brooks	1971386, 1971387
	03/02/2018	03/19/2018	Elliott D. Healy	03/27/2018	Robert K Palmer	1971385
	03/02/2018	03/29/2018	Elliott D. Healy	04/03/2018	Robert K Palmer	1971385
EPA 300.0 Rev. 2.1	03/02/2018			03/08/2018	Julia Storbeck	1971355, 1971358, 1971359
EPA 350.1 Rev. 2.0	03/02/2018			03/05/2018	Ping Hua	1971360, 1971361
	03/02/2018			03/08/2018	Ping Hua	1971356
EPA 351.2 Rev. 2.0	03/02/2018	03/06/2018	Adrian Shelby	03/07/2018	Joseph Suarez	1971356
	03/02/2018	03/07/2018	Adrian Shelby	03/08/2018	Joseph Suarez	1971360, 1971361
EPA 353.2 Rev. 2.0	03/02/2018			03/05/2018	Lauren Bottorf	1971356
	03/02/2018			03/07/2018	Lauren Bottorf	1971360, 1971361
EPA 365.1 Rev. 2.0	03/02/2018	03/06/2018	Sima Feizi	03/07/2018	Beverly Y. Sanders	1971356
	03/02/2018	03/07/2018	Sima Feizi	03/08/2018	Beverly Y. Sanders	1971360, 1971361
EPA 365.1 Rev. 2.0 dissolved	03/02/2018			03/02/2018 15:24	Julia Storbeck	1971363
	03/02/2018			03/02/2018 15:26	Julia Storbeck	1971362
	03/02/2018			03/02/2018 15:38	Julia Storbeck	1971357
EPA 8270D	03/02/2018	03/05/2018	Rasheda Ghaffari	03/09/2018	Vandana T. Nagar	1971380, 1971383, 1971384
	03/02/2018	03/05/2018	Rasheda Ghaffari	03/14/2018	Vandana T. Nagar	1971380
EPA 8276	03/02/2018	03/05/2018	Rasheda Ghaffari	03/13/2018	John P. Burgos	1971379, 1971381, 1971382
EPA 8321B	03/02/2018	03/02/2018	Julie Michelle Frank	03/03/2018	Juyoung Kim	1971373, 1971376, 1971377, 1971378
	03/02/2018	03/05/2018	Hoor Shaik	03/06/2018	Julie Michelle Frank	1971373, 1971376, 1971377, 1971378
	03/02/2018	03/05/2018	Hoor Shaik	03/08/2018	Julie Michelle Frank	1971372, 1971374, 1971375
	03/02/2018	03/07/2018	Julie Michelle Frank	03/07/2018	Julie Michelle Frank	1971373, 1971376, 1971377
SM 2120 B	03/02/2018			03/02/2018 16:17	Tanya Welborn	1971355
	03/02/2018			03/02/2018 16:18	Tanya Welborn	1971358
	03/02/2018			03/02/2018 16:21	Tanya Welborn	1971359
SM 2320 B-97	03/02/2018			03/09/2018	Lauren Bottorf	1971355
	03/02/2018			03/10/2018	Lauren Bottorf	1971358, 1971359
SM 2540 C-97	03/02/2018			03/07/2018	Yijie Li	1971355, 1971358, 1971359
SM 2540 D-97	03/02/2018			03/07/2018	Yijie Li	1971355, 1971358
	03/02/2018			03/17/2018	Yijie Li	1971359
SM 4500 F-C-97	03/02/2018			03/14/2018	Dale L. Simmons	1971355, 1971358, 1971359
SM 5310 B-00	03/02/2018			03/06/2018	Megan Treadwell	1971356
	03/02/2018			03/07/2018	Megan Treadwell	1971360, 1971361