Chemical Analysis Report

NW-DIST-2019-06-13-02

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

Event Description: **SMP Bioassessment**
Request ID: **RQ-2019-06-10-34**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
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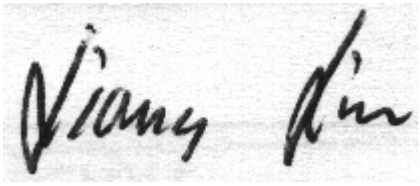
Certified by: Liang Lin, Environmental Administrator

Date Certified: 01-JUL-2019 16:08



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 by the Florida Department of Health Environmental Laboratory Certification Program 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: BIG COLDWATER CREEK (EAST FORK) UPSTREAM OF SPRINGHILL RD **Collection Date/Time: 06/12/2019 10:25**

Field ID: G4NW0434 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095105	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P365607	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P365811	
		Sulfate	1.3		mg SO4/L	P365814	
	SM 2120 B	Color (true)	31		PCU	P365603	
	SM 2320 B-97	Total Alkalinity	1.2	I	mg CaCO3/L	P366009	
	SM 2540 C-97	TDS	28		mg/L	P366001	
	SM 2540 D-97	TSS	3	I	mg/L	P365902	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P366012	
2095106	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P366163	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P365792	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P365818	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P365834	
	SM 5310 B-00	Organic Carbon	3.0		mg C/L	P365745	
2095107	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365613	
2095117	EPA 8321B	2,4-D	0.0020	U	ug/L	P365553	
		Acesulfame K**	0.10	U	ug/L	P365716	
		AMPA**	0.10	U	ug/L	P365716	
		Sucralose**	0.010	U	ug/L	P365716	
		Acetaminophen**	0.0080	U	ug/L	P365553	
		Endothall**	0.25	U	ug/L	P365716	
		Glufosinate**	0.10	U	ug/L	P365716	
		Glyphosate**	0.10	U	ug/L	P365716	
		Bentazon	8.6E-04	I	ug/L	P365553	
		Carbamazepine**	8.0E-04	U	ug/L	P365553	
		Diuron	0.0020	U	ug/L	P365553	
		Fenuron	0.016	U	ug/L	P365553	
		Fluridone**	8.0E-04	U	ug/L	P365553	
		Imazapyr**	0.0040	U	ug/L	P365553	
		Hydrocodone**	0.0020	U	ug/L	P365553	
		Ibuprofen**	0.020	U	ug/L	P365553	
		Imidacloprid	0.0020	UJ	ug/L	P365553	MS
		Linuron	0.0040	U	ug/L	P365553	
		MCPP	0.0020	U	ug/L	P365553	
		Naproxen**	0.0080	U	ug/L	P365553	
		Primidone**	0.0040	U	ug/L	P365553	
		Pyraclostrobin**	0.0020	U	ug/L	P365553	
		Triclopyr**	0.0040	UJ	ug/L	P365553	RPD
2095120	EPA 8270E	Acetochlor	0.27	U	ng/L	P365463	
		Alachlor	0.27	U	ng/L	P365463	
		Ametryn	0.65	U	ng/L	P365463	
		Atrazine	0.32	I	ng/L	P365463	
		Atrazine Desethyl	1.6	U	ng/L	P365463	

Field ID: G4NW0434 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095120	EPA 8270E	Azinphos Methyl	5.4	U	ng/L	P365463	
		Bromacil	0.54	U	ng/L	P365463	
		Butylate	0.43	U	ng/L	P365463	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P365463	
		Chlorpyrifos Methyl	0.11	U	ng/L	P365463	
		Cyanazine	3.5	U	ng/L	P365463	
		Demeton	7.6	U	ng/L	P365463	
		Diazinon	0.14	U	ng/L	P365463	
		Dimethenamid**	0.11	U	ng/L	P365463	
		Disulfoton	0.54	U	ng/L	P365463	
		Dithiopyr**	0.11	U	ng/L	P365463	
		EPTC	1.4	U	ng/L	P365463	
		Ethion	0.16	U	ng/L	P365463	
		Ethoprop	0.11	U	ng/L	P365463	
		Fenamiphos	0.54	UJ	ng/L	P365463	RPD
		Fipronil	0.27	U	ng/L	P365463	
		Fipronil Desulfinyl**	0.14	U	ng/L	P365463	
		Fipronil Sulfide	0.16	U	ng/L	P365463	
		Fipronil Sulfone	0.16	U	ng/L	P365463	
		Fonofos	0.22	U	ng/L	P365463	
		Hexazinone	4.5	J	ng/L	P365463	LCS, MS, RPD
		Malathion	0.38	U	ng/L	P365463	
		Metalaxyl	0.33	UJ	ng/L	P365463	LCS, MS, RPD
		Metolachlor	0.92	I	ng/L	P365463	
		Metribuzin	0.81	U	ng/L	P365463	
		Mevinphos	0.54	U	ng/L	P365463	
		Molinate	0.33	U	ng/L	P365463	
		Norflurazon	0.54	U	ng/L	P365463	
		Oxadiazon**	0.11	U	ng/L	P365463	
		Parathion Ethyl	0.27	U	ng/L	P365463	
		Parathion Methyl	0.60	U	ng/L	P365463	
		Pendimethalin	1.1	U	ng/L	P365463	
		Phorate	0.27	U	ng/L	P365463	
		Prodiamine**	0.19	U	ng/L	P365463	
		Prometon	0.98	U	ng/L	P365463	
		Prometryn	0.22	U	ng/L	P365463	
		Simazine	0.54	U	ng/L	P365463	
		Tebuconazole**	0.54	U	ng/L	P365463	
		Terbufos	0.11	U	ng/L	P365463	
		Terbuthylazine	0.46	U	ng/L	P365463	
2095123	EPA 200.7 Rev. 4.4	Barium	22.0		ug/L	P365782	
		Calcium	0.90		mg/L	P365782	
		Iron	380		ug/L	P365782	
		Magnesium	0.65		mg/L	P365782	

Field ID: G4NW0434 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095123	EPA 200.7 Rev. 4.4	Potassium	0.30	U	mg/L	P365782	
		Sodium	1.9	I	mg/L	P365782	
		Zinc	5.0	U	ug/L	P365782	
	EPA 200.8 Rev. 5.4	Aluminum	136		ug/L	P365782	
		Antimony	0.050	U	ug/L	P365782	
		Arsenic	0.23		ug/L	P365782	
		Boron**	9.0		ug/L	P365782	
		Cadmium	0.020	U	ug/L	P365782	
		Chromium	0.41	I	ug/L	P365782	
		Copper	0.40	U	ug/L	P365782	
		Lead	0.20	U	ug/L	P365782	
		Nickel	0.54	I	ug/L	P365782	
		Selenium	0.20	U	ug/L	P365782	
		Silver	0.010	U	ug/L	P365782	
		Thallium	0.10	I	ug/L	P365782	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes.
EPA 8270E: Refer to the narrative for an explanation of QC Codes.

Sample Location: BIG COLDWATER CREEK WEST FORK UPSTREAM OF WALLING RD **Collection Date/Time: 06/12/2019 12:11**

Field ID: G4NW0436 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095108	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P365607	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P365811	
		Sulfate	1.3		mg SO4/L	P365814	
	SM 2120 B	Color (true)	26	A	PCU	P365603	
	SM 2320 B-97	Total Alkalinity	5.0		mg CaCO3/L	P366009	
	SM 2540 C-97	TDS	33		mg/L	P366001	
	SM 2540 D-97	TSS	3	I	mg/L	P365902	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P366012	
2095109	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P366163	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P365792	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P365818	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P365834	
	SM 5310 B-00	Organic Carbon	2.2		mg C/L	P365745	
2095110	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365613	
2095118	EPA 8321B	Aldicarb	0.020	U	ug/L	P365687	
		Aldicarb Sulfone	0.0020	U	ug/L	P365687	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P365687	
		Carbaryl	0.0020	U	ug/L	P365687	
		Carbofuran	0.0020	U	ug/L	P365687	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P365687	
		Methiocarb	0.0020	U	ug/L	P365687	
		Methomyl	0.0020	U	ug/L	P365687	
		Oxamyl	0.0020	U	ug/L	P365687	
		Propoxur	0.0020	U	ug/L	P365687	
2095119		2,4-D	0.0020	U	ug/L	P365553	
		Acesulfame K**	0.10	U	ug/L	P365716	
		AMPA**	0.10	U	ug/L	P365716	
		Sucralose**	0.023	I	ug/L	P365716	
		Acetaminophen**	0.0080	U	ug/L	P365553	
		Endothall**	0.25	U	ug/L	P365716	
		Glufosinate**	0.10	U	ug/L	P365716	
		Glyphosate**	0.10	U	ug/L	P365716	
		Bentazon	0.0035		ug/L	P365553	
		Carbamazepine**	8.0E-04	U	ug/L	P365553	
		Diuron	0.0020	U	ug/L	P365553	
		Fenuron	0.016	U	ug/L	P365553	
		Fluridone**	0.0022	I	ug/L	P365553	
		Imazapyr**	0.014	I	ug/L	P365553	
		Hydrocodone**	0.0020	U	ug/L	P365553	
		Ibuprofen**	0.020	U	ug/L	P365553	
		Imidacloprid	0.0052	I	ug/L	P365553	MS
		Linuron	0.0040	U	ug/L	P365553	

Field ID: G4NW0436 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095119	EPA 8321B	MCPP	0.0020	U	ug/L	P365553	
		Naproxen**	0.0080	U	ug/L	P365553	
		Primidone**	0.0040	U	ug/L	P365553	
		Pyraclostrobin**	0.0020	U	ug/L	P365553	
		Triclopyr**	0.0040	U	ug/L	P365553	RPD
2095121	EPA 8270E	Aldrin	4.4	U	ng/L	P365862	
		Alpha-BHC	2.2	UJ	ng/L	P365862	LCS
		Alpha-Chlordane	1.1	U	ng/L	P365862	
		Beta-BHC	11	UJ	ng/L	P365862	LCS
		Bifenthrin**	4.4	U	ng/L	P365862	
		Delta-BHC	11	UJ	ng/L	P365862	LCS
		Gamma-BHC	11	U	ng/L	P365862	
		Carbophenothion	13	U	ng/L	P365862	
		Chlorothalonil	2.2	UJ	ng/L	P365862	LCS
		Cis-Nonachlor**	1.1	U	ng/L	P365862	
		Cypermethrin	22	U	ng/L	P365862	
		DDD-p,p'	8.8	U	ng/L	P365862	
		DDE-p,p'	8.8	U	ng/L	P365862	
		DDT-p,p'	11	U	ng/L	P365862	
		Dicofol	33	U	ng/L	P365862	
		Dieldrin	4.4	U	ng/L	P365862	
		Endosulfan I	4.4	U	ng/L	P365862	
		Endosulfan II	4.4	U	ng/L	P365862	
		Endosulfan Sulfate	2.2	U	ng/L	P365862	
		Endrin	2.2	U	ng/L	P365862	
		Endrin Aldehyde	2.2	U	ng/L	P365862	
		Endrin Ketone	2.2	U	ng/L	P365862	
		Ethalfluralin**	3.3	U	ng/L	P365862	
		Gamma-Chlordane	1.1	U	ng/L	P365862	
		Heptachlor	1.6	U	ng/L	P365862	
		Heptachlor Epoxide	2.2	U	ng/L	P365862	
		Hexachlorobenzene**	2.2	U	ng/L	P365862	
		Methoxychlor	4.4	UJ	ng/L	P365862	LCS, MS
		Mirex	2.2	U	ng/L	P365862	
		Permethrin	11	U	ng/L	P365862	
		Trans-Nonachlor**	1.1	U	ng/L	P365862	
		Trifluralin	2.7	U	ng/L	P365862	
	EPA 8276	Chlordane	5.5	U	ng/L	P365862	
		Toxaphene	33	U	ng/L	P365862	
2095122	EPA 8270E	Acetochlor	0.25	U	ng/L	P365463	
		Alachlor	0.25	U	ng/L	P365463	
		Ametryn	0.60	U	ng/L	P365463	
		Atrazine	2.9		ng/L	P365463	
		Atrazine Desethyl	1.5	U	ng/L	P365463	
		Azinphos Methyl	5.0	U	ng/L	P365463	

Field ID: G4NW0436 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095122	EPA 8270E	Bromacil	1.2	I	ng/L	P365463	
		Butylate	0.40	U	ng/L	P365463	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P365463	
		Chlorpyrifos Methyl	0.099	U	ng/L	P365463	
		Cyanazine	3.2	U	ng/L	P365463	
		Demeton	6.9	U	ng/L	P365463	
		Diazinon	0.12	U	ng/L	P365463	
		Dimethenamid**	0.099	U	ng/L	P365463	
		Disulfoton	0.50	U	ng/L	P365463	
		Dithiopyr**	0.099	U	ng/L	P365463	
		EPTC	1.2	U	ng/L	P365463	
		Ethion	0.15	U	ng/L	P365463	
		Ethoprop	0.099	U	ng/L	P365463	
		Fenamiphos	0.50	UJ	ng/L	P365463	RPD
		Fipronil	0.25	U	ng/L	P365463	
		Fipronil Desulfinyl**	0.12	U	ng/L	P365463	
		Fipronil Sulfide	0.15	U	ng/L	P365463	
		Fipronil Sulfone	0.15	U	ng/L	P365463	
		Fonofos	0.20	U	ng/L	P365463	
		Hexazinone	3.8	J	ng/L	P365463	LCS, MS, RPD
		Malathion	0.35	U	ng/L	P365463	
		Metalaxyl	0.30	UJ	ng/L	P365463	LCS, MS, RPD
		Metolachlor	14		ng/L	P365463	
		Metribuzin	0.74	U	ng/L	P365463	
		Mevinphos	0.50	U	ng/L	P365463	
		Molinate	0.30	U	ng/L	P365463	
		Norflurazon	1.9	I	ng/L	P365463	
		Oxadiazon**	0.099	U	ng/L	P365463	
		Parathion Ethyl	0.25	U	ng/L	P365463	
		Parathion Methyl	0.55	U	ng/L	P365463	
		Pendimethalin	0.99	U	ng/L	P365463	
		Phorate	0.25	U	ng/L	P365463	
		Prodiamine**	0.17	U	ng/L	P365463	
		Prometon	0.89	U	ng/L	P365463	
		Prometryn	0.20	U	ng/L	P365463	
		Simazine	0.50	U	ng/L	P365463	
		Tebuconazole**	0.50	U	ng/L	P365463	
		Terbufos	0.099	U	ng/L	P365463	
		Terbuthylazine	0.42	U	ng/L	P365463	
2095124	EPA 200.7 Rev. 4.4	Barium	64.3		ug/L	P365782	
		Calcium	3.02		mg/L	P365782	
		Iron	550		ug/L	P365782	
		Magnesium	2.18		mg/L	P365782	
		Potassium	1.2	I	mg/L	P365782	

Field ID: G4NW0436 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2095124	EPA 200.7 Rev. 4.4	Sodium	2.6		mg/L	P365782	
		Zinc	5.0	U	ug/L	P365782	
	EPA 200.8 Rev. 5.4	Aluminum	133		ug/L	P365782	
		Antimony	0.050	U	ug/L	P365782	
		Arsenic	0.30		ug/L	P365782	
		Boron**	14.4		ug/L	P365782	
		Cadmium	0.020	U	ug/L	P365782	
		Chromium	0.40	U	ug/L	P365782	
		Copper	0.40	U	ug/L	P365782	
		Lead	0.20	U	ug/L	P365782	
		Nickel	0.64	I	ug/L	P365782	
		Selenium	0.20	U	ug/L	P365782	
		Silver	0.010	U	ug/L	P365782	
		Thallium	0.10	U	ug/L	P365782	

Ref. Method and Comment:
EPA 8270E: 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: P365607

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365782

Component	Result	Code	Units
Barium	1.0	U	ug/L
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: P365782

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365792

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365818

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365834

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365613

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

Reference Method: EPA 8270E
Batch ID: P365463

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	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	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	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	0.30	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P365463

Component	Result	Code	Units
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P365862

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	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	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
Ethalfluralin	3.0	U	ng/L
Gamma-BHC	10	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P365862

Component	Result	Code	Units
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P365862

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P365553

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P365687

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P365716

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P365716

Component	Result	Code	Units
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P365603

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P366009

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

Reference Method: SM 2540 C-97
Batch ID: P366001

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P365902

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P365745

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: P365782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	104		P	85 - 115
Iron	104		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	101		P	85 - 115
Sodium	101		P	85 - 115
Zinc	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.5		P	85 - 115
Antimony	99.6		P	85 - 115
Arsenic	102		P	85 - 115
Boron	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	99.3		P	85 - 115
Copper	99.0		P	85 - 115
Lead	101		P	85 - 115
Nickel	100		P	85 - 115
Selenium	99.2		P	85 - 115
Silver	99.6		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365792

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365818

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365834

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365613

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.0		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P365463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	107	104	P/P	69 - 122
Alachlor	106	101	P/P	71 - 120
Ametryn	93.1	84.6	P/P	47 - 138
Atrazine	117	109	P/P	74 - 124
Atrazine Desethyl	88.5	78.6	P/P	38 - 138
Azinphos Methyl	105	102	P/P	69 - 154
Bromacil	97.2	88.7	P/P	39 - 121
Butylate	76.0	83.5	P/P	27 - 87.0
Chlorpyrifos Ethyl	102	99.9	P/P	69 - 118
Chlorpyrifos Methyl	94.0	97.5	P/P	70 - 120
Cyanazine	104	98.2	P/P	20 - 250
Demeton	72.4	68.7	P/P	39 - 118
Diazinon	105	101	P/P	68 - 127
Dimethenamid	110	105	P/P	66 - 125
Disulfoton	72.4	68.5	P/P	52 - 126
Dithiopyr	107	101	P/P	67 - 127
EPTC	77.0	80.9	P/P	24 - 88.0
Ethion	109	109	P/P	51 - 132
Ethoprop	109	109	P/P	58 - 117
Fenamiphos	45.2	64.9	P/P	38 - 139
Fipronil	113	105	P/P	61 - 124
Fipronil Desulfinyl	108	98.0	P/P	47 - 120
Fipronil Sulfide	109	103	P/P	56 - 119
Fipronil Sulfone	114	102	P/P	50 - 117
Fonofos	91.2	92.2	P/P	60 - 121
Hexazinone	78.4	139	P/F	55 - 137
Malathion	108	113	P/P	66 - 126
Metalaxyl	11.1	58.0	F/P	33 - 140
Metolachlor	108	102	P/P	69 - 119
Metribuzin	84.2	83.0	P/P	31 - 238
Mevinphos	91.0	101	P/P	42 - 113
Molinate	85.7	90.1	P/P	32 - 96.0
Norflurazon	108	101	P/P	54 - 123
Oxadiazon	106	102	P/P	63 - 128

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P365463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	104	96.7	P/P	72 - 111
Parathion Methyl	106	98.7	P/P	74 - 126
Pendimethalin	92.6	90.5	P/P	61 - 131
Phorate	81.5	78.4	P/P	51 - 115
Prodiamine	104	110	P/P	38 - 144
Prometon	76.4	85.4	P/P	54 - 119
Prometryn	98.8	89.6	P/P	63 - 120
Simazine	113	111	P/P	75 - 126
Tebuconazole	66.6	71.7	P/P	20 - 119
Terbufos	91.3	91.0	P/P	64 - 116
Terbuthylazine	113	106	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P365862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	51.6	52.3	P/P	20 - 93.0
Alpha-BHC	122	123	F/F	57 - 119
Alpha-Chlordane	96.2	90.6	P/P	58 - 112
Beta-BHC	167	159	F/F	56 - 149
Bifenthrin	81.6	84.5	P/P	50 - 130
Carbophenothion	98.9	102	P/P	26 - 147
Chlorothalonil	235	235	F/F	20 - 155
Cis-Nonachlor	98.8	94.7	P/P	50 - 130
Cypermethrin	101	105	P/P	40 - 137
DDD-p,p'	109	104	P/P	65 - 129
DDE-p,p'	91.3	85.6	P/P	57 - 116
DDT-p,p'	116	117	P/P	53 - 133
Delta-BHC	179	176	F/F	59 - 163
Dicofol	102	102	P/P	24 - 138
Dieldrin	99.9	94.5	P/P	60 - 120
Endosulfan I	106	103	P/P	64 - 118
Endosulfan II	122	118	P/P	58 - 142
Endosulfan Sulfate	114	117	P/P	60 - 127
Endrin	108	103	P/P	59 - 122
Endrin Aldehyde	127	118	P/P	49 - 132
Endrin Ketone	111	115	P/P	64 - 121
Ethalfluralin	104	107	P/P	50 - 130
Gamma-BHC	122	118	P/P	56 - 141
Gamma-Chlordane	91.4	87.4	P/P	56 - 110
Heptachlor	76.8	75.8	P/P	46 - 96.0
Heptachlor Epoxide	102	96.9	P/P	61 - 112
Hexachlorobenzene	73.7	73.8	P/P	50 - 130
Methoxychlor	138	138	F/F	63 - 134
Mirex	65.1	66.2	P/P	45 - 100
Permethrin	76.4	78.4	P/P	53 - 115
Trans-Nonachlor	91.0	86.3	P/P	50 - 130
Trifluralin	101	102	P/P	39 - 142

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P365862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	67.8	70.4	P/P	43 - 128
Toxaphene	84.3	88.1	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P365553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	115		P	40 - 150
Acetaminophen	108		P	30 - 150
Bentazon	79.7		P	30 - 150
Carbamazepine	106		P	40 - 150
Diuron	86.3		P	40 - 150
Fenuron	97.2		P	40 - 150
Fluridone	89.1		P	40 - 150
Hydrocodone	99.4		P	40 - 150
Ibuprofen	76.3		P	30 - 150
Imazapyr	92.1		P	40 - 150
Imidacloprid	103		P	40 - 150
Linuron	67.3		P	40 - 150
MCPP	137		P	40 - 150
Naproxen	80.9		P	40 - 150
Primidone	97.7		P	40 - 150
Pyraclostrobin	77.0		P	30 - 150
Triclopyr	95.8		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P365687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	81.5		P	40 - 150
Aldicarb	71.8		P	30 - 150
Aldicarb Sulfone	80.8		P	40 - 150
Aldicarb Sulfoxide	93.6		P	40 - 150
Carbaryl	76.1		P	40 - 150
Carbofuran	80.4		P	40 - 150
Methiocarb	66.4		P	40 - 150
Methomyl	95.1		P	40 - 150
Oxamyl	104		P	40 - 150
Propoxur	78.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P365716

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	106		P	40 - 150
AMPA	103		P	40 - 150
Endothall	95.4		P	40 - 150
Glufosinate	107		P	40 - 150
Glyphosate	107		P	40 - 140
Sucralose	108		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P365603

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

Reference Method: SM 2320 B-97
Batch ID: P366009

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P365745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095081	Barium	98.3		P	80 - 120
2095081	Calcium	99.5		P	80 - 120
2095081	Iron	105		P	80 - 120
2095081	Magnesium	106		P	80 - 120
2095081	Potassium	104		P	80 - 120
2095081	Sodium	103		P	80 - 120
2095081	Zinc	97.3		P	80 - 120
2095101	Barium	101	102	P/P	80 - 120
2095101	Calcium	106	104	P/P	80 - 120
2095101	Iron	106	105	P/P	80 - 120
2095101	Magnesium	110	108	P/P	80 - 120
2095101	Potassium	111	110	P/P	80 - 120
2095101	Sodium	103	102	P/P	80 - 120
2095101	Zinc	99.2	99.7	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095081	Aluminum	98.5		P	80 - 120
2095081	Antimony	102		P	80 - 120
2095081	Arsenic	103		P	80 - 120
2095081	Boron	101		P	80 - 120
2095081	Cadmium	103		P	80 - 120
2095081	Chromium	99.4		P	80 - 120
2095081	Copper	96.4		P	80 - 120
2095081	Lead	102		P	80 - 120
2095081	Nickel	98.2		P	80 - 120
2095081	Selenium	100		P	80 - 120
2095081	Silver	101		P	80 - 120
2095081	Thallium	105		P	80 - 120
2095101	Aluminum	98.4	98.5	P/P	80 - 120
2095101	Antimony	101	100	P/P	80 - 120
2095101	Arsenic	103	102	P/P	80 - 120
2095101	Boron	98.4	98.8	P/P	80 - 120
2095101	Cadmium	101	98.9	P/P	80 - 120
2095101	Chromium	102	101	P/P	80 - 120
2095101	Copper	101	101	P/P	80 - 120
2095101	Lead	103	103	P/P	80 - 120
2095101	Nickel	100	100	P/P	80 - 120
2095101	Selenium	100	99.5	P/P	80 - 120
2095101	Silver	100	98.4	P/P	80 - 120
2095101	Thallium	105	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095051	Chloride	99.7		P	90 - 110
2095133	Chloride	100		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095051	Sulfate	101		P	90 - 110
2095133	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095106	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095062	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095134	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095062	Total-P	107	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095053	O-Phosphate-P	91.6	91.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P365463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2093213	Acetochlor	99.7	106	P/P	63 - 129
2093213	Alachlor	99.3	103	P/P	65 - 127
2093213	Ametryn	93.5	103	P/P	40 - 164
2093213	Atrazine	106	122	P/P	66 - 135
2093213	Atrazine Desethyl	77.7	79.9	P/P	14 - 157
2093213	Azinphos Methyl	90.6	102	P/P	49 - 180
2093213	Bromacil	86.3	95.5	P/P	48 - 130
2093213	Butylate	76.4	75.5	P/P	10 - 94.0
2093213	Chlorpyrifos Ethyl	96.3	101	P/P	58 - 123
2093213	Chlorpyrifos Methyl	93.5	96.9	P/P	58 - 125
2093213	Cyanazine	98.2	103	P/P	24 - 253
2093213	Demeton	69.5	78.2	P/P	25 - 149
2093213	Diazinon	98.7	101	P/P	59 - 144
2093213	Dimethenamid	103	106	P/P	46 - 139
2093213	Disulfoton	66.9	78.1	P/P	54 - 132

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P365463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2093213	Dithiopyr	101	104	P/P	64 - 130
2093213	EPTC	78.9	74.7	P/P	10 - 92.0
2093213	Ethion	103	111	P/P	30 - 148
2093213	Ethoprop	104	105	P/P	50 - 130
2093213	Fenamiphos	51.6	95.3	P/P	49 - 142
2093213	Fipronil	103	110	P/P	46 - 140
2093213	Fipronil Desulfinyl	93.9	97.3	P/P	30 - 121
2093213	Fipronil Sulfide	99.2	124	P/P	31 - 136
2093213	Fipronil Sulfone	100	110	P/P	16 - 136
2093213	Fonofos	92.3	86.9	P/P	55 - 129
2093213	Hexazinone	121	152	P/F	56 - 141
2093213	Malathion	105	113	P/P	56 - 135
2093213	Metalaxyl	21.1	66.5	F/P	54 - 135
2093213	Metolachlor	99.7	106	P/P	51 - 140
2093213	Metribuzin	91.2	95.9	P/P	45 - 254
2093213	Mevinphos	89.5	99.5	P/P	33 - 131
2093213	Molinate	85.3	83.5	P/P	14 - 98.0
2093213	Norflurazon	92.6	104	P/P	34 - 136
2093213	Oxadiazon	99.8	108	P/P	67 - 116
2093213	Parathion Ethyl	93.5	96.8	P/P	66 - 118
2093213	Parathion Methyl	93.9	100	P/P	64 - 136
2093213	Pendimethalin	92.0	99.4	P/P	59 - 144
2093213	Phorate	76.7	82.4	P/P	42 - 130
2093213	Prodiamine	119	124	P/P	42 - 148
2093213	Prometon	81.2	97.0	P/P	59 - 134
2093213	Prometryn	89.5	101	P/P	54 - 135
2093213	Simazine	118	122	P/P	53 - 156
2093213	Tebuconazole	70.0	91.4	P/P	10 - 131
2093213	Terbufos	90.3	92.9	P/P	57 - 131
2093213	Terbuthylazine	99.6	110	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P365862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095232	Aldrin	71.0	72.6	P/P	25 - 92.0
2095232	Alpha-BHC	123	129	P/P	49 - 130
2095232	Alpha-Chlordane	93.4	94.3	P/P	50 - 115
2095232	Beta-BHC	154	152	P/P	43 - 157
2095232	Bifenthrin	102	100	P/P	50 - 130
2095232	Carbophenothion	143	151	P/P	27 - 180
2095232	Chlorothalonil	74.6	68.8	P/P	10 - 216
2095232	Cis-Nonachlor	99.0	100	P/P	50 - 130
2095232	Cypermethrin	147	149	P/P	40 - 153
2095232	DDD-p,p'	102	102	P/P	53 - 128
2095232	DDE-p,p'	84.2	86.7	P/P	48 - 116
2095232	DDT-p,p'	121	121	P/P	47 - 128
2095232	Delta-BHC	169	175	P/P	51 - 196
2095232	Dicofol	72.6	84.4	P/P	10 - 147
2095232	Dieldrin	94.5	93.9	P/P	48 - 128
2095232	Endosulfan I	108	110	P/P	58 - 126
2095232	Endosulfan II	122	124	P/P	50 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P365862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095232	Endosulfan Sulfate	127	126	P/P	56 - 130
2095232	Endrin	96.5	91.1	P/P	50 - 126
2095232	Endrin Aldehyde	110	105	P/P	12 - 145
2095232	Endrin Ketone	125	121	P/P	59 - 132
2095232	Ethalfluralin	115	118	P/P	50 - 130
2095232	Gamma-BHC	142	136	P/P	50 - 155
2095232	Gamma-Chlordane	94.0	94.5	P/P	50 - 112
2095232	Heptachlor	86.5	87.3	P/P	41 - 98.0
2095232	Heptachlor Epoxide	99.0	98.5	P/P	55 - 117
2095232	Hexachlorobenzene	76.5	75.0	P/P	50 - 130
2095232	Methoxychlor	137	139	F/F	55 - 133
2095232	Mirex	80.4	80.9	P/P	44 - 101
2095232	Permethrin	87.4	83.8	P/P	52 - 124
2095232	Trans-Nonachlor	88.1	86.6	P/P	50 - 130
2095232	Trifluralin	105	108	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P365862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095839	Chlordane	73.9	64.5	P/P	34 - 136
2095839	Toxaphene	78.7	73.1	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P365553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095117	2,4-D	102	111	P/P	40 - 150
2095117	Acetaminophen	98.7	89.9	P/P	30 - 150
2095117	Bentazon	67.4	55.3	P/P	30 - 150
2095117	Carbamazepine	101	90.9	P/P	40 - 150
2095117	Diuron	79.2	74.5	P/P	40 - 150
2095117	Fenuron	95.5	91.9	P/P	40 - 150
2095117	Fluridone	88.3	88.0	P/P	40 - 150
2095117	Hydrocodone	120	104	P/P	40 - 150
2095117	Ibuprofen	72.6	64.3	P/P	30 - 150
2095117	Imazapyr	117	115	P/P	40 - 150
2095117	Imidacloprid	178	167	F/F	40 - 150
2095117	Linuron	66.4	61.2	P/P	40 - 150
2095117	MCPP	127	126	P/P	40 - 150
2095117	Naproxen	78.1	76.4	P/P	40 - 150
2095117	Primidone	80.0	79.6	P/P	40 - 150
2095117	Pyraclostrobin	83.3	78.0	P/P	30 - 150
2095117	Triclopyr	64.3	92.1	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P365687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095290	3-Hydroxycarbofuran	71.0	68.4	P/P	40 - 150
2095290	Aldicarb	61.1	61.2	P/P	30 - 150
2095290	Aldicarb Sulfone	87.2	86.7	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P365687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095290	Aldicarb Sulfoxide	60.0	55.1	P/P	40 - 150
2095290	Carbaryl	69.7	72.9	P/P	40 - 150
2095290	Carbofuran	81.0	83.2	P/P	40 - 150
2095290	Methiocarb	61.9	62.3	P/P	40 - 150
2095290	Methomyl	95.3	81.5	P/P	40 - 150
2095290	Oxamyl	93.0	101	P/P	40 - 150
2095290	Propoxur	73.5	74.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P365716

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095117	Acesulfame K	108	112	P/P	40 - 150
2095117	AMPA	72.3	74.4	P/P	40 - 150
2095117	Endothall	60.8	60.2	P/P	40 - 150
2095117	Glufosinate	95.4	94.9	P/P	40 - 150
2095117	Glyphosate	98.1	98.3	P/P	40 - 140
2095117	Sucralose	101	114	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095059	Fluoride	97.6	97.6	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P365745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095062	Organic Carbon	96.2	96.2	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	Turbidity	0.583	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095101	Barium	0.201	Spike	P	0 - 20
2095101	Calcium	1.77	Spike	P	0 - 20
2095101	Iron	1.43	Spike	P	0 - 20
2095101	Magnesium	1.93	Spike	P	0 - 20
2095101	Potassium	0.914	Spike	P	0 - 20
2095101	Sodium	0.420	Spike	P	0 - 20
2095101	Zinc	0.466	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095101	Aluminum	0.0628	Spike	P	0 - 20
2095101	Antimony	1.22	Spike	P	0 - 20
2095101	Arsenic	0.272	Spike	P	0 - 20
2095101	Boron	0.389	Spike	P	0 - 20
2095101	Cadmium	1.91	Spike	P	0 - 20
2095101	Chromium	1.33	Spike	P	0 - 20
2095101	Copper	0.517	Spike	P	0 - 20
2095101	Lead	0.714	Spike	P	0 - 20
2095101	Nickel	0.00899	Spike	P	0 - 20
2095101	Selenium	0.478	Spike	P	0 - 20
2095101	Silver	1.86	Spike	P	0 - 20
2095101	Thallium	0.182	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	Chloride	0.958	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	Sulfate	1.29	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095106	Ammonia-N	0.560	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095062	Kjeldahl Nitrogen	0.971	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095134	NO2NO3-N	0.985	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095062	Total-P	6.41	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095053	O-Phosphate-P	0.109	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P365463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2093213	Acetochlor	6.43	Spike	P	0 - 30
2093213	Alachlor	3.50	Spike	P	0 - 30
2093213	Ametryn	9.63	Spike	P	0 - 30
2093213	Atrazine	13.7	Spike	P	0 - 30
2093213	Atrazine Desethyl	2.80	Spike	P	0 - 30
2093213	Azinphos Methyl	12.1	Spike	P	0 - 30
2093213	Bromacil	10.1	Spike	P	0 - 30
2093213	Butylate	1.15	Spike	P	0 - 30
2093213	Chlorpyrifos Ethyl	5.28	Spike	P	0 - 30
2093213	Chlorpyrifos Methyl	3.64	Spike	P	0 - 30
2093213	Cyanazine	4.75	Spike	P	0 - 30
2093213	Demeton	11.8	Spike	P	0 - 30
2093213	Diazinon	2.11	Spike	P	0 - 30
2093213	Dimethenamid	2.84	Spike	P	0 - 30
2093213	Disulfoton	15.4	Spike	P	0 - 30
2093213	Dithiopyr	3.39	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P365463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2093213	EPTC	5.47	Spike	P	0 - 30
2093213	Ethion	7.73	Spike	P	0 - 30
2093213	Ethoprop	1.06	Spike	P	0 - 30
2093213	Fenamiphos	59.5	Spike	F	0 - 30
2093213	Fipronil	5.99	Spike	P	0 - 30
2093213	Fipronil Desulfinyl	3.50	Spike	P	0 - 30
2093213	Fipronil Sulfide	22.5	Spike	P	0 - 30
2093213	Fipronil Sulfone	8.89	Spike	P	0 - 30
2093213	Fonofos	5.95	Spike	P	0 - 30
2093213	Hexazinone	22.1	Spike	P	0 - 30
2093213	Malathion	6.89	Spike	P	0 - 30
2093213	Metalaxyl	104	Spike	F	0 - 30
2093213	Metolachlor	6.38	Spike	P	0 - 30
2093213	Metribuzin	5.05	Spike	P	0 - 30
2093213	Mevinphos	10.5	Spike	P	0 - 30
2093213	Molinate	2.17	Spike	P	0 - 30
2093213	Norflurazon	11.2	Spike	P	0 - 30
2093213	Oxadiazon	7.65	Spike	P	0 - 30
2093213	Parathion Ethyl	3.46	Spike	P	0 - 30
2093213	Parathion Methyl	6.77	Spike	P	0 - 30
2093213	Pendimethalin	7.82	Spike	P	0 - 30
2093213	Phorate	7.10	Spike	P	0 - 30
2093213	Prodiamine	4.06	Spike	P	0 - 30
2093213	Prometon	17.7	Spike	P	0 - 30
2093213	Prometryn	12.4	Spike	P	0 - 30
2093213	Simazine	2.79	Spike	P	0 - 30
2093213	Tebuconazole	26.5	Spike	P	0 - 30
2093213	Terbufos	2.78	Spike	P	0 - 30
2093213	Terbuthylazine	9.61	Spike	P	0 - 30
LFB	Acetochlor	2.71	LCS	P	0 - 30
LFB	Alachlor	4.49	LCS	P	0 - 30
LFB	Ametryn	9.49	LCS	P	0 - 30
LFB	Atrazine	6.84	LCS	P	0 - 30
LFB	Atrazine Desethyl	11.8	LCS	P	0 - 30
LFB	Azinphos Methyl	3.10	LCS	P	0 - 30
LFB	Bromacil	9.18	LCS	P	0 - 30
LFB	Butylate	9.32	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.50	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.74	LCS	P	0 - 30
LFB	Cyanazine	6.06	LCS	P	0 - 30
LFB	Demeton	5.25	LCS	P	0 - 30
LFB	Diazinon	4.58	LCS	P	0 - 30
LFB	Dimethenamid	5.03	LCS	P	0 - 30
LFB	Disulfoton	5.53	LCS	P	0 - 30
LFB	Dithiopyr	5.05	LCS	P	0 - 30
LFB	EPTC	5.00	LCS	P	0 - 30
LFB	Ethion	0.451	LCS	P	0 - 30
LFB	Ethoprop	0.171	LCS	P	0 - 30
LFB	Fenamiphos	35.8	LCS	F	0 - 30
LFB	Fipronil	7.16	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	9.45	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P365463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	6.10	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.3	LCS	P	0 - 30
LFB	Fonofos	1.14	LCS	P	0 - 30
LFB	Hexazinone	55.7	LCS	F	0 - 30
LFB	Malathion	4.69	LCS	P	0 - 30
LFB	Metalaxyl	136	LCS	F	0 - 30
LFB	Metolachlor	6.36	LCS	P	0 - 30
LFB	Metribuzin	1.49	LCS	P	0 - 30
LFB	Mevinphos	9.99	LCS	P	0 - 30
LFB	Molinate	4.95	LCS	P	0 - 30
LFB	Norflurazon	7.49	LCS	P	0 - 30
LFB	Oxadiazon	3.42	LCS	P	0 - 30
LFB	Parathion Ethyl	7.15	LCS	P	0 - 30
LFB	Parathion Methyl	6.79	LCS	P	0 - 30
LFB	Pendimethalin	2.21	LCS	P	0 - 30
LFB	Phorate	3.81	LCS	P	0 - 30
LFB	Prodiamine	5.21	LCS	P	0 - 30
LFB	Prometon	11.1	LCS	P	0 - 30
LFB	Prometryn	9.85	LCS	P	0 - 30
LFB	Simazine	1.66	LCS	P	0 - 30
LFB	Tebuconazole	7.34	LCS	P	0 - 30
LFB	Terbufos	0.331	LCS	P	0 - 30
LFB	Terbuthylazine	6.29	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P365862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095232	Aldrin	2.19	Spike	P	0 - 30
2095232	Alpha-BHC	4.96	Spike	P	0 - 30
2095232	Alpha-Chlordane	0.885	Spike	P	0 - 30
2095232	Beta-BHC	1.46	Spike	P	0 - 30
2095232	Bifenthrin	2.07	Spike	P	0 - 30
2095232	Carbophenothion	5.70	Spike	P	0 - 30
2095232	Chlorothalonil	8.16	Spike	P	0 - 30
2095232	Cis-Nonachlor	0.942	Spike	P	0 - 30
2095232	Cypermethrin	1.41	Spike	P	0 - 30
2095232	DDD-p,p'	0.621	Spike	P	0 - 30
2095232	DDE-p,p'	2.89	Spike	P	0 - 30
2095232	DDT-p,p'	0.280	Spike	P	0 - 30
2095232	Delta-BHC	3.46	Spike	P	0 - 30
2095232	Dicofol	14.9	Spike	P	0 - 30
2095232	Dieldrin	0.627	Spike	P	0 - 30
2095232	Endosulfan I	2.12	Spike	P	0 - 30
2095232	Endosulfan II	2.07	Spike	P	0 - 30
2095232	Endosulfan Sulfate	0.820	Spike	P	0 - 30
2095232	Endrin	5.79	Spike	P	0 - 30
2095232	Endrin Aldehyde	4.72	Spike	P	0 - 30
2095232	Endrin Ketone	2.87	Spike	P	0 - 30
2095232	Ethalfluralin	2.05	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P365862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095232	Gamma-BHC	4.37	Spike	P	0 - 30
2095232	Gamma-Chlordane	0.501	Spike	P	0 - 30
2095232	Heptachlor	0.943	Spike	P	0 - 30
2095232	Heptachlor Epoxide	0.515	Spike	P	0 - 30
2095232	Hexachlorobenzene	1.93	Spike	P	0 - 30
2095232	Methoxychlor	0.859	Spike	P	0 - 30
2095232	Mirex	0.546	Spike	P	0 - 30
2095232	Permethrin	4.20	Spike	P	0 - 30
2095232	Trans-Nonachlor	1.76	Spike	P	0 - 30
2095232	Trifluralin	2.85	Spike	P	0 - 30
LFB	Aldrin	1.32	LCS	P	0 - 30
LFB	Alpha-BHC	1.38	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.98	LCS	P	0 - 30
LFB	Beta-BHC	5.22	LCS	P	0 - 30
LFB	Bifenthrin	3.50	LCS	P	0 - 30
LFB	Carbophenothion	2.70	LCS	P	0 - 30
LFB	Chlorothalonil	0.155	LCS	P	0 - 30
LFB	Cis-Nonachlor	4.20	LCS	P	0 - 30
LFB	Cypermethrin	3.87	LCS	P	0 - 30
LFB	DDD-p,p'	4.56	LCS	P	0 - 30
LFB	DDE-p,p'	6.44	LCS	P	0 - 30
LFB	DDT-p,p'	1.31	LCS	P	0 - 30
LFB	Delta-BHC	1.66	LCS	P	0 - 30
LFB	Dicofol	0.684	LCS	P	0 - 30
LFB	Dieldrin	5.58	LCS	P	0 - 30
LFB	Endosulfan I	2.81	LCS	P	0 - 30
LFB	Endosulfan II	2.95	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.47	LCS	P	0 - 30
LFB	Endrin	4.74	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.85	LCS	P	0 - 30
LFB	Endrin Ketone	3.02	LCS	P	0 - 30
LFB	Ethalfluralin	3.13	LCS	P	0 - 30
LFB	Gamma-BHC	3.65	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.45	LCS	P	0 - 30
LFB	Heptachlor	1.39	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.56	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.102	LCS	P	0 - 30
LFB	Methoxychlor	0.393	LCS	P	0 - 30
LFB	Mirex	1.67	LCS	P	0 - 30
LFB	Permethrin	2.67	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.20	LCS	P	0 - 30
LFB	Trifluralin	0.478	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P365862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095839	Chlordane	13.5	Spike	P	0 - 30
2095839	Toxaphene	7.38	Spike	P	0 - 30
LFB	Chlordane	3.82	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P365862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Toxaphene	4.43	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P365553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095117	2,4-D	7.94	Spike	P	0 - 30
2095117	Acetaminophen	9.39	Spike	P	0 - 30
2095117	Bentazon	18.5	Spike	P	0 - 30
2095117	Carbamazepine	10.3	Spike	P	0 - 30
2095117	Diuron	6.11	Spike	P	0 - 30
2095117	Fenuron	3.85	Spike	P	0 - 30
2095117	Fluridone	0.372	Spike	P	0 - 30
2095117	Hydrocodone	14.3	Spike	P	0 - 30
2095117	Ibuprofen	12.0	Spike	P	0 - 30
2095117	Imazapyr	1.67	Spike	P	0 - 30
2095117	Imidacloprid	6.00	Spike	P	0 - 30
2095117	Linuron	8.10	Spike	P	0 - 30
2095117	MCPP	0.876	Spike	P	0 - 30
2095117	Naproxen	2.12	Spike	P	0 - 30
2095117	Primidone	0.591	Spike	P	0 - 30
2095117	Pyraclostrobin	6.51	Spike	P	0 - 30
2095117	Triclopyr	35.5	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P365687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095290	3-Hydroxycarbofuran	3.61	Spike	P	0 - 30
2095290	Aldicarb	0.221	Spike	P	0 - 30
2095290	Aldicarb Sulfone	0.599	Spike	P	0 - 30
2095290	Aldicarb Sulfoxide	8.48	Spike	P	0 - 30
2095290	Carbaryl	4.49	Spike	P	0 - 30
2095290	Carbofuran	2.59	Spike	P	0 - 30
2095290	Methiocarb	0.578	Spike	P	0 - 30
2095290	Methomyl	15.6	Spike	P	0 - 30
2095290	Oxamyl	7.87	Spike	P	0 - 30
2095290	Propoxur	1.27	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P365716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095117	Acesulfame K	3.84	Spike	P	0 - 30
2095117	AMPA	2.80	Spike	P	0 - 30
2095117	Endothall	0.915	Spike	P	0 - 30
2095117	Glufosinate	0.444	Spike	P	0 - 30
2095117	Glyphosate	0.229	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P365716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095117	Sucralose	12.7	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P365603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095108	Color (true)	1.86	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P366009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095059	Total Alkalinity	1.15	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P366001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	TDS	3.92	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P365902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095133	TSS	3.45	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P366012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095059	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P365745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095062	Organic Carbon	0.0520	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Surrogates

Lab Sample ID: 2095117
Field Sample ID: G4NW0434

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.2	P	30 - 160
EPA 8321B	Diuron-d6	65.8	P	30 - 160
EPA 8321B	Endothall-d6	66.5	P	30 - 160
EPA 8321B	Endothall-d6	66.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.4	P	30 - 160
EPA 8321B	Primidone-d5	84.3	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2095118
Field Sample ID: G4NW0436

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

Lab Sample ID: 2095119
Field Sample ID: G4NW0436

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.4	P	30 - 160
EPA 8321B	Diuron-d6	67.0	P	30 - 160
EPA 8321B	Endothall-d6	80.4	P	30 - 160
EPA 8321B	Endothall-d6	80.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.9	P	30 - 160
EPA 8321B	Primidone-d5	74.2	P	30 - 160
EPA 8321B	Sucralose-d6	128	P	30 - 160
EPA 8321B	Sucralose-d6	128	P	30 - 160

Lab Sample ID: 2095120
Field Sample ID: G4NW0434

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	96.1	P	68 - 130
EPA 8270E	Terbufos-d10	93.2	P	61 - 136

Lab Sample ID: 2095121
Field Sample ID: G4NW0436

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.9	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	54.3	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	60.0	P	30 - 103
EPA 8276	PCNB	73.1	P	37 - 143

Quality Assurance Report
Surrogates

Lab Sample ID: 2095122
Field Sample ID: G4NW0436

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	87.6	P	68 - 130
EPA 8270E	Terbufos-d10	81.3	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B
Run ID: A92083
Included Lab Sample IDs: 2095105, 2095108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.4	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A92084
Included Lab Sample IDs: 2095105, 2095108

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A92086
Included Lab Sample IDs: 2095107, 2095110

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.3	96.4	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A92138
Included Lab Sample IDs: 2095106, 2095109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.5	95.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A92160
Included Lab Sample IDs: 2095117, 2095119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	105	P/P	60 - 160
Endothall	95.1	97.8	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A92171
Included Lab Sample IDs: 2095105, 2095108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	93.4	P/P	90 - 110
Sulfate	102	94.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A92173
Included Lab Sample IDs: 2095106, 2095109

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A92181
Included Lab Sample IDs: 2095117, 2095119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	87.1	83.2	P/P	60 - 160
Glufosinate	94.8	94.4	P/P	60 - 160
Glyphosate	89.6	94.6	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A92192
Included Lab Sample IDs: 2095123, 2095124

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A92208
Included Lab Sample IDs: 2095106, 2095109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	95.5	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A92228
Included Lab Sample IDs: 2095105, 2095108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A92228
Included Lab Sample IDs: 2095105, 2095108

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A92231
Included Lab Sample IDs: 2095106, 2095109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A92264
Included Lab Sample IDs: 2095123, 2095124

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.1	98.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A92264
Included Lab Sample IDs: 2095123, 2095124

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	100	99.5	P/P	90 - 110
Arsenic	99.5	100	P/P	90 - 110
Boron	96.7	101	P/P	90 - 110
Cadmium	99.1	98.6	P/P	90 - 110
Chromium	99.9	99.8	P/P	90 - 110
Copper	98.5	98.7	P/P	90 - 110
Lead	101	102	P/P	90 - 110
Nickel	98.2	98.5	P/P	90 - 110
Selenium	98.9	98.3	P/P	90 - 110
Silver	96.5	96.7	P/P	90 - 110
Thallium	98.6	98.8	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A92291
Included Lab Sample IDs: 2095121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.9		P	80 - 120
Alpha-BHC	92.7		P	80 - 120
Alpha-Chlordane	92.6		P	80 - 120
Beta-BHC	91.4		P	80 - 120
Bifenthrin	92.0		P	80 - 120
Carbophenothion	102		P	80 - 120
Chlorothalonil	97.8		P	80 - 120
Cis-Nonachlor	90.8		P	80 - 120
Cypermethrin	93.1		P	80 - 120
DDD-p,p'	93.9		P	80 - 120
DDE-p,p'	94.6		P	80 - 120
DDT-p,p'	103		P	80 - 120
Delta-BHC	97.1		P	80 - 120
Dicofol	104		P	80 - 120
Dieldrin	91.5		P	80 - 120
Endosulfan I	93.8		P	80 - 120
Endosulfan II	95.5		P	80 - 120
Endosulfan Sulfate	92.4		P	80 - 120
Endrin	97.0		P	80 - 120
Endrin Aldehyde	86.9		P	80 - 120
Endrin Ketone	90.4		P	80 - 120
Ethalfluralin	95.1		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	92.3		P	80 - 120
Heptachlor	92.6		P	80 - 120
Heptachlor Epoxide	93.4		P	80 - 120
Hexachlorobenzene	96.9		P	80 - 120
Methoxychlor	101		P	80 - 120
Mirex	95.3		P	80 - 120
Permethrin	88.8		P	80 - 120
Trans-Nonachlor	92.6		P	80 - 120
Trifluralin	94.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A92295
Included Lab Sample IDs: 2095106, 2095109

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

Reference Method: EPA 8276
Run ID: A92296
Included Lab Sample IDs: 2095121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	89.2		P	80 - 120
Toxaphene	98.7		P	80 - 120

Reference Method: EPA 8321B
Run ID: A92342
Included Lab Sample IDs: 2095117, 2095119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	79.4	77.7	P/P	50 - 150
2,4-D	92.5	79.4	P/P	50 - 150
3-Hydroxycarbofuran	104	103	P/P	60 - 150
Acetaminophen	111	85.5	P/P	60 - 160
Acetaminophen	130	111	P/P	60 - 160
Aldicarb	122	106	P/P	60 - 150
Aldicarb Sulfone	98.0	93.2	P/P	50 - 150
Aldicarb Sulfoxide	98.3	93.4	P/P	50 - 150
Bentazon	105	88.9	P/P	50 - 160
Bentazon	88.9	68.1	P/P	50 - 160
Carbamazepine	104	114	P/P	60 - 150
Carbamazepine	114	107	P/P	60 - 150
Carbaryl	97.7	96.4	P/P	60 - 150
Carbofuran	110	105	P/P	50 - 150
Diuron	101	98.3	P/P	60 - 150
Diuron	104	101	P/P	60 - 150
Fenuron	86.1	95.0	P/P	60 - 150
Fenuron	98.9	86.1	P/P	60 - 150
Fluridone	100	95.0	P/P	60 - 160
Fluridone	95.0	89.0	P/P	60 - 160
Hydrocodone	107	112	P/P	60 - 150
Hydrocodone	114	107	P/P	60 - 150
Ibuprofen	77.9	65.1	P/P	50 - 160
Ibuprofen	87.6	77.9	P/P	50 - 160
Imazapyr	76.4	69.0	P/P	50 - 150
Imazapyr	96.6	76.4	P/P	50 - 150
Imidacloprid	101	93.0	P/P	60 - 150
Imidacloprid	93.0	86.5	P/P	60 - 150
Linuron	86.8	93.4	P/P	60 - 150
Linuron	93.4	83.9	P/P	60 - 150
MCPP	84.8	77.2	P/P	50 - 150
MCPP	86.6	84.8	P/P	50 - 150
Methiocarb	99.8	104	P/P	50 - 150
Methomyl	98.8	97.2	P/P	50 - 150
Naproxen	106	89.2	P/P	50 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A92342
Included Lab Sample IDs: 2095117, 2095119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	89.2	91.8	P/P	50 - 160
Oxamyl	86.0	115	P/P	50 - 150
Primidone	81.8	74.0	P/P	60 - 150
Primidone	89.5	81.8	P/P	60 - 150
Propoxur	104	98.6	P/P	50 - 150
Pyraclostrobin	87.9	94.1	P/P	60 - 150
Pyraclostrobin	90.3	87.9	P/P	60 - 150
Triclopyr	80.1	81.7	P/P	50 - 150
Triclopyr	92.3	80.1	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A92355
Included Lab Sample IDs: 2095120, 2095122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.1		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	97.1		P	80 - 120
Atrazine	106		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	93.3		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	97.9		P	80 - 120
Chlorpyrifos Methyl	97.8		P	80 - 120
Cyanazine	99.8		P	80 - 120
Demeton	98.3		P	80 - 120
Diazinon	98.8		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	99.0		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	98.4		P	80 - 120
Ethion	97.9		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	98.3		P	80 - 120
Fipronil	98.3		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	94.7		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fonofos	99.1		P	80 - 120
Hexazinone	100		P	80 - 120
Malathion	100		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	92.2		P	80 - 120
Mevinphos	96.1		P	80 - 120
Molinate	98.3		P	80 - 120
Norflurazon	96.9		P	80 - 120
Oxadiazon	105		P	80 - 120
Parathion Ethyl	93.6		P	80 - 120
Parathion Methyl	96.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A92355
Included Lab Sample IDs: 2095120, 2095122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pendimethalin	90.4		P	80 - 120
Phorate	99.6		P	80 - 120
Prodiamine	88.5		P	80 - 120
Prometon	97.5		P	80 - 120
Prometryn	99.0		P	80 - 120
Simazine	106		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	96.8		P	80 - 120
Terbuthylazine	101		P	80 - 120

Reference Method: EPA 8321B
Run ID: A92427
Included Lab Sample IDs: 2095117, 2095119

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	106	P/P	60 - 160

* 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							0.583	
EPA 200.7 Rev. 4.4	Barium	101		98.3	101	102			0.201
	Calcium	104		99.5	106	104			1.77
	Iron	104		105	106	105			1.43
	Magnesium	108		106	110	108			1.93
	Potassium	101		104	111	110			0.914
	Sodium	101		103	103	102			0.420
	Zinc	99.8		97.3	99.2	99.7			0.466
EPA 200.8 Rev. 5.4	Aluminum	99.5		98.5	98.4	98.5			0.0628
	Antimony	99.6		102	101	100			1.22
	Arsenic	102		103	103	102			0.272
	Boron	101		101	98.4	98.8			0.389
	Cadmium	101		103	101	98.9			1.91
	Chromium	99.3		99.4	102	101			1.33
	Copper	99.0		96.4	101	101			0.517
	Lead	101		102	103	103			0.714
	Nickel	100		98.2	100	100			0.0089
	Selenium	99.2		100	100	99.5			0.478
	Silver	99.6		101	100	98.4			1.86
	Thallium	104		105	105	105			0.182
EPA 300.0 Rev. 2.1	Chloride	100		100	99.7			0.958	
	Sulfate	100		101	101			1.29	
EPA 350.1 Rev. 2.0	Ammonia-N	101		103	103				0.560
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.5		102	101				0.971
EPA 353.2 Rev. 2.0	NO2NO3-N	100		101	102				0.985
EPA 365.1 Rev. 2.0	Total-P	103		107	99.7				6.41
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.0		91.6	91.7				0.109
EPA 8270E	Acetochlor	107	104	99.7	106		2.71		6.43
	Alachlor	106	101	99.3	103		4.49		3.50
	Aldrin	51.6	52.3	71.0	72.6		1.32		2.19
	Alpha-BHC	122	123	123	129		1.38		4.96
	Alpha-Chlordane	96.2	90.6	93.4	94.3		5.98		0.885
	Ametryn	93.1	84.6	93.5	103		9.49		9.63
	Atrazine	117	109	106	122		6.84		13.7
	Atrazine Desethyl	88.5	78.6	79.9	77.7		11.8		2.80
	Azinphos Methyl	105	102	102	90.6		3.10		12.1
	Beta-BHC	167	159	154	152		5.22		1.46
	Bifenthrin	81.6	84.5	102	100		3.50		2.07
	Bromacil	97.2	88.7	95.5	86.3		9.18		10.1
	Butylate	76.0	83.5	75.5	76.4		9.32		1.15
	Carbophenothion	98.9	102	143	151		2.70		5.70
	Chlorothalonil	235	235	74.6	68.8		0.155		8.16
	Chlorpyrifos Ethyl	102	99.9	101	96.3		2.50		5.28
	Chlorpyrifos Methyl	94.0	97.5	93.5	96.9		3.74		3.64
	Cis-Nonachlor	98.8	94.7	99.0	100		4.20		0.942
	Cyanazine	104	98.2	98.2	103		6.06		4.75
	Cypermethrin	101	105	147	149		3.87		1.41
	DDD-p,p'	109	104	102	102		4.56		0.621
	DDE-p,p'	91.3	85.6	84.2	86.7		6.44		2.89
	DDT-p,p'	116	117	121	121		1.31		0.280
	Delta-BHC	179	176	169	175		1.66		3.46
	Demeton	72.4	68.7	69.5	78.2		5.25		11.8
	Diazinon	105	101	98.7	101		4.58		2.11
	Dicofol	102	102	72.6	84.4		0.684		14.9

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Dieldrin	99.9	94.5	94.5	93.9	5.58		0.627
	Dimethenamid	110	105	103	106	5.03		2.84
	Disulfoton	72.4	68.5	66.9	78.1	5.53		15.4
	Dithiopyr	107	101	101	104	5.05		3.39
	Endosulfan I	106	103	108	110	2.81		2.12
	Endosulfan II	122	118	122	124	2.95		2.07
	Endosulfan Sulfate	114	117	127	126	2.47		0.820
	Endrin	108	103	96.5	91.1	4.74		5.79
	Endrin Aldehyde	127	118	110	105	6.85		4.72
	Endrin Ketone	111	115	125	121	3.02		2.87
	EPTC	77.0	80.9	78.9	74.7	5.00		5.47
	Ethalfluralin	104	107	115	118	3.13		2.05
	Ethion	109	109	103	111	0.451		7.73
	Ethoprop	109	109	104	105	0.171		1.06
	Fenamiphos	45.2	64.9	51.6	95.3	35.8		59.5
	Fipronil	113	105	103	110	7.16		5.99
	Fipronil Desulfinyl	108	98.0	93.9	97.3	9.45		3.50
	Fipronil Sulfide	109	103	99.2	124	6.10		22.5
	Fipronil Sulfone	114	102	100	110	10.3		8.89
	Fonofos	91.2	92.2	92.3	86.9	1.14		5.95
	Gamma-BHC	122	118	142	136	3.65		4.37
	Gamma-Chlordane	91.4	87.4	94.0	94.5	4.45		0.501
	Heptachlor	76.8	75.8	86.5	87.3	1.39		0.943
	Heptachlor Epoxide	102	96.9	99.0	98.5	5.56		0.515
	Hexachlorobenzene	73.7	73.8	76.5	75.0	0.102		1.93
	Hexazinone	78.4	139	121	152	55.7		22.1
	Malathion	108	113	105	113	4.69		6.89
	Metalaxyl	11.1	58.0	21.1	66.5	136		104
	Methoxychlor	138	138	137	139	0.393		0.859
	Metolachlor	108	102	99.7	106	6.36		6.38
	Metribuzin	84.2	83.0	91.2	95.9	1.49		5.05
	Mevinphos	91.0	101	89.5	99.5	9.99		10.5
	Mirex	65.1	66.2	80.4	80.9	1.67		0.546
	Molinate	85.7	90.1	85.3	83.5	4.95		2.17
	Norflurazon	108	101	92.6	104	7.49		11.2
	Oxadiazon	106	102	99.8	108	3.42		7.65
	Parathion Ethyl	104	96.7	93.5	96.8	7.15		3.46
	Parathion Methyl	106	98.7	93.9	100	6.79		6.77
	Pendimethalin	92.6	90.5	92.0	99.4	2.21		7.82
	Permethrin	76.4	78.4	87.4	83.8	2.67		4.20
	Phorate	81.5	78.4	76.7	82.4	3.81		7.10
	Prodiamine	104	110	119	124	5.21		4.06
	Prometon	76.4	85.4	81.2	97.0	11.1		17.7
	Prometryn	98.8	89.6	89.5	101	9.85		12.4
	Simazine	113	111	118	122	1.66		2.79
	Tebuconazole	66.6	71.7	70.0	91.4	7.34		26.5
	Terbufos	91.3	91.0	92.9	90.3	0.331		2.78
	Terbuthylazine	113	106	110	99.6	6.29		9.61
	Trans-Nonachlor	91.0	86.3	88.1	86.6	5.20		1.76
	Trifluralin	101	102	105	108	0.478		2.85
EPA 8276	Chlordane	67.8	70.4	73.9	64.5	3.82		13.5
	Toxaphene	84.3	88.1	78.7	73.1	4.43		7.38
EPA 8321B	2,4-D	115		102	111			7.94
	3-Hydroxycarbofuran	81.5		71.0	68.4			3.61

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Acesulfame K	106	108	112			3.84
	Acetaminophen	108	98.7	89.9			9.39
	Aldicarb	71.8	61.1	61.2			0.221
	Aldicarb Sulfone	80.8	87.2	86.7			0.599
	Aldicarb Sulfoxide	93.6	60.0	55.1			8.48
	AMPA	103	72.3	74.4			2.80
	Bentazon	79.7	67.4	55.3			18.5
	Carbamazepine	106	101	90.9			10.3
	Carbaryl	76.1	69.7	72.9			4.49
	Carbofuran	80.4	81.0	83.2			2.59
	Diuron	86.3	79.2	74.5			6.11
	Endothall	95.4	60.8	60.2			0.915
	Fenuron	97.2	95.5	91.9			3.85
	Fluridone	89.1	88.3	88.0			0.372
	Glufosinate	107	95.4	94.9			0.444
	Glyphosate	107	98.1	98.3			0.229
	Hydrocodone	99.4	120	104			14.3
	Ibuprofen	76.3	72.6	64.3			12.0
	Imazapyr	92.1	117	115			1.67
	Imidacloprid	103	178	167			6.00
	Linuron	67.3	66.4	61.2			8.10
	MCPP	137	127	126			0.876
	Methiocarb	66.4	61.9	62.3			0.578
	Methomyl	95.1	95.3	81.5			15.6
	Naproxen	80.9	78.1	76.4			2.12
	Oxamyl	104	93.0	101			7.87
	Primidone	97.7	80.0	79.6			0.591
	Propoxur	78.0	73.5	74.5			1.27
	Pyraclostrobin	77.0	83.3	78.0			6.51
	Sucralose	108	101	114			12.7
	Triclopyr	95.8	64.3	92.1			35.5
SM 2120 B	Color (true)	99.9				1.86	
SM 2320 B-97	Total Alkalinity	102				1.15	
SM 2540 C-97	TDS					3.92	
SM 2540 D-97	TSS					3.45	
SM 4500 F-C-97	Fluoride	98.5	97.6	97.6			0.0
SM 5310 B-00	Organic Carbon	95.7	96.2	96.2			0.0520

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2095105, 2095108
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2095123, 2095124
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2095123, 2095124
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2095105, 2095108
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2095105, 2095108
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2095106, 2095109

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2095106, 2095109
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2095106, 2095109
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2095106, 2095109
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2095107, 2095110
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2095121
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2095120, 2095122
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2095121
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2095118
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2095117, 2095119
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2095117, 2095119
SM 2120 B / E31780	True Color measured at 450 nm	2095105, 2095108
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2095105, 2095108
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2095105, 2095108
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2095105, 2095108
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2095105, 2095108
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2095106, 2095109

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	06/13/2019			06/13/2019 15:49	Julia Storbeck	2095105, 2095108
EPA 200.7 Rev. 4.4	06/13/2019	06/17/2019 16:15	Elliott D. Healy	06/18/2019 15:21	Betina Topolski	2095123
	06/13/2019	06/17/2019 16:15	Elliott D. Healy	06/18/2019 15:27	Betina Topolski	2095124
EPA 200.8 Rev. 5.4	06/13/2019	06/17/2019 16:15	Elliott D. Healy	06/20/2019 22:03	Robert K Palmer	2095123
	06/13/2019	06/17/2019 16:15	Elliott D. Healy	06/20/2019 22:12	Robert K Palmer	2095124
EPA 300.0 Rev. 2.1	06/13/2019			06/18/2019 01:28	Lipi Saha	2095105
	06/13/2019			06/18/2019 01:40	Lipi Saha	2095108
EPA 350.1 Rev. 2.0	06/13/2019			06/21/2019 11:45	Ping Hua	2095106
	06/13/2019			06/21/2019 11:58	Ping Hua	2095109
EPA 351.2 Rev. 2.0	06/13/2019	06/18/2019 10:31	Sima Feizi	06/19/2019 10:12	Joseph Suarez	2095106
	06/13/2019	06/18/2019 10:31	Sima Feizi	06/19/2019 10:14	Joseph Suarez	2095109
EPA 353.2 Rev. 2.0	06/13/2019			06/18/2019 09:30	Beverly Y. Sanders	2095106
	06/13/2019			06/18/2019 11:48	Beverly Y. Sanders	2095109
EPA 365.1 Rev. 2.0	06/13/2019	06/18/2019 12:55	Sima Feizi	06/20/2019 12:28	Lipi Saha	2095106
	06/13/2019	06/18/2019 12:55	Sima Feizi	06/20/2019 12:29	Lipi Saha	2095109
EPA 365.1 Rev. 2.0 dissolved	06/13/2019			06/13/2019 15:46	Jhamieka S. Greenwood	2095107
	06/13/2019			06/13/2019 15:47	Jhamieka S. Greenwood	2095110
EPA 8270E	06/13/2019	06/13/2019 14:00	Rasheda Ghaffari	06/14/2019 23:35	Vandana T. Nagar	2095120
	06/13/2019	06/13/2019 14:00	Rasheda Ghaffari	06/14/2019 23:59	Vandana T. Nagar	2095122
	06/13/2019	06/17/2019 08:30	Rasheda Ghaffari	06/22/2019 00:49	Arthur Maknenko	2095121
EPA 8276	06/13/2019	06/17/2019 08:30	Rasheda Ghaffari	06/21/2019 18:49	Dinesh Mishra	2095121
EPA 8321B	06/13/2019	06/17/2019 10:30	Rebecca Ware	06/17/2019 18:03	Rebecca Ware	2095117
	06/13/2019	06/17/2019 10:30	Rebecca Ware	06/17/2019 18:17	Rebecca Ware	2095119
	06/13/2019	06/17/2019 10:30	Rebecca Ware	06/18/2019 10:49	Rebecca Ware	2095117
	06/13/2019	06/17/2019 10:30	Rebecca Ware	06/18/2019 10:59	Rebecca Ware	2095119
	06/13/2019	06/17/2019 10:30	Rebecca Ware	06/26/2019 17:24	Rebecca Ware	2095117
	06/13/2019	06/17/2019 10:30	Rebecca Ware	06/26/2019 17:36	Rebecca Ware	2095119
	06/13/2019	06/18/2019 09:00	Joshua Hartstein	06/19/2019 01:49	Juyoung Kim	2095118
	06/13/2019	06/19/2019 09:00	Hoor Shaik	06/19/2019 23:44	Juyoung Kim	2095117
	06/13/2019	06/19/2019 09:00	Hoor Shaik	06/20/2019 02:37	Juyoung Kim	2095119
SM 2120 B	06/13/2019			06/13/2019 15:36	Mariam Hanna	2095105
	06/13/2019			06/13/2019 15:37	Mariam Hanna	2095108
SM 2320 B-97	06/13/2019			06/19/2019 11:38	Dale L. Simmons	2095105
	06/13/2019			06/19/2019 11:52	Dale L. Simmons	2095108
SM 2540 C-97	06/13/2019			06/14/2019 17:01	Rosalyn Ballman	2095105, 2095108
SM 2540 D-97	06/13/2019			06/14/2019 17:01	Rosalyn Ballman	2095105, 2095108
SM 4500 F-C-97	06/13/2019			06/19/2019 11:38	Dale L. Simmons	2095105
	06/13/2019			06/19/2019 11:52	Dale L. Simmons	2095108
SM 5310 B-00	06/13/2019			06/14/2019 11:51	Julia Storbeck	2095106
	06/13/2019			06/15/2019 12:04	Julia Storbeck	2095109