

Chemical Analysis Report

NW-DIST-2019-05-31-01

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

Event Description: **Perdido/Bridge**
Request ID: **RQ-2019-05-27-13**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

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

Date Certified: 25-JUN-2019 13:06

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: SANDERS BEACH SOUTH OF SANDERS
BEACH PARK**

Collection Date/Time: 05/30/2019 09:40

Field ID: G4NW0484

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090300	EPA 8321B	2,4-D	0.0046	I	ug/L	P364627	
		Acesulfame K**	0.10	UJ	ug/L	P364873	SUR
		AMPA**	1.0	U	ug/L	P364873	
		Sucralose**	0.095		ug/L	P364873	
		Acetaminophen**	0.0080	U	ug/L	P364627	
		Endothall**	0.25	UJ	ug/L	P364873	SUR
		Glufosinate**	1.0	U	ug/L	P364873	
		Glyphosate**	1.0	U	ug/L	P364873	
		Bentazon	8.0E-04	U	ug/L	P364627	
		Carbamazepine**	8.0E-04	U	ug/L	P364627	
		Diuron	0.0020	U	ug/L	P364627	
		Fenuron	0.016	U	ug/L	P364627	
		Fluridone**	8.0E-04	U	ug/L	P364627	
		Imazapyr**	0.0098	I	ug/L	P364627	RPD
		Hydrocodone**	0.0020	U	ug/L	P364627	
		Ibuprofen**	0.020	U	ug/L	P364627	
		Imidacloprid	0.0021	I	ug/L	P364627	MS
		Linuron	0.0040	U	ug/L	P364627	
		MCPP	0.0020	U	ug/L	P364627	MS
		Naproxen**	0.0080	U	ug/L	P364627	
		Primidone**	0.0040	U	ug/L	P364627	
		Pyraclostrobin**	0.0020	U	ug/L	P364627	
		Triclopyr**	0.0040	U	ug/L	P364627	

Ref. Method and Comment:

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

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate.

Sample Location: BAYOU CHICO

Collection Date/Time: 05/30/2019 10:05

Field ID: G4NW0483

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090301	EPA 8321B	2,4-D	0.0040	I	ug/L	P364627	
		Acesulfame K**	0.10	UJ	ug/L	P364873	SUR
		AMPA**	1.0	U	ug/L	P364873	
		Sucralose**	0.31		ug/L	P364873	
		Acetaminophen**	0.0080	U	ug/L	P364627	
		Endothall**	0.25	UJ	ug/L	P364873	SUR
		Glufosinate**	1.0	U	ug/L	P364873	
		Glyphosate**	1.0	U	ug/L	P364873	
		Bentazon	8.0E-04	U	ug/L	P364627	
		Carbamazepine**	0.0014	I	ug/L	P364627	
		Diuron	0.0020	U	ug/L	P364627	
		Fenuron	0.016	U	ug/L	P364627	
		Fluridone**	8.0E-04	U	ug/L	P364627	
		Imazapyr**	0.0040	U	ug/L	P364627	RPD
		Hydrocodone**	0.0020	U	ug/L	P364627	
		Ibuprofen**	0.020	U	ug/L	P364627	
		Imidacloprid	0.0026	I	ug/L	P364627	MS
		Linuron	0.0040	U	ug/L	P364627	
		MCPP	0.0020	U	ug/L	P364627	MS
		Naproxen**	0.0080	U	ug/L	P364627	
		Primidone**	0.0040	U	ug/L	P364627	
		Pyraclostrobin**	0.0020	U	ug/L	P364627	
		Triclopyr**	0.0040	U	ug/L	P364627	

Ref. Method and Comment:

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

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate.

Sample Location: BRIDGE CREEK (TIDAL PORTION)

Collection Date/Time: 05/30/2019 11:30

Field ID: G5NW0129

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090282	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P364834	
	EPA 300.0	Bromide	10		mg Br/L	P365161	
	SM 2320 B-97	Total Alkalinity	29		mg CaCO3/L	P364930	
	SM 2540 D-97	TSS	3	U	mg/L	P364981	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P364932	
2090283	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P365210	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P365108	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P364990	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P365019	
	SM 5310 B-00	Organic Carbon	6.0		mg C/L	P364949	
2090284	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P364853	
2090298	EPA 8321B	Aldicarb	0.020	U	ug/L	P364627	
		Aldicarb Sulfone	0.0020	U	ug/L	P364627	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P364627	MS
		Carbaryl	0.0020	U	ug/L	P364627	
		Carbofuran	0.0020	U	ug/L	P364627	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P364627	
		Methiocarb	0.0020	U	ug/L	P364627	
		Methomyl	0.0020	U	ug/L	P364627	
		Oxamyl	0.0020	U	ug/L	P364627	
		Propoxur	0.0020	U	ug/L	P364627	
2090299		2,4-D	0.0035	I	ug/L	P364627	
		Acesulfame K**	0.10	UJ	ug/L	P364873	SUR
		AMPA**	1.0	U	ug/L	P364873	
		Sucralose**	0.81		ug/L	P364873	
		Acetaminophen**	0.0080	U	ug/L	P364627	
		Endothall**	0.25	UJ	ug/L	P364873	SUR
		Glufosinate**	1.0	U	ug/L	P364873	
		Glyphosate**	1.0	U	ug/L	P364873	
		Bentazon	8.2E-04	I	ug/L	P364627	
		Carbamazepine**	0.0015	I	ug/L	P364627	
		Diuron	0.0020	U	ug/L	P364627	
		Fenuron	0.016	U	ug/L	P364627	
		Fluridone**	8.0E-04	U	ug/L	P364627	
		Imazapyr**	0.0050	I	ug/L	P364627	RPD
		Hydrocodone**	0.0020	U	ug/L	P364627	
		Ibuprofen**	0.020	U	ug/L	P364627	
		Imidacloprid	0.014		ug/L	P364627	MS
		Linuron	0.0040	U	ug/L	P364627	
		MCPP	0.0020	U	ug/L	P364627	MS
		Naproxen**	0.0080	U	ug/L	P364627	
		Primidone**	0.0040	U	ug/L	P364627	
		Pyraclostrobin**	0.0020	U	ug/L	P364627	

Field ID: G5NW0129

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090299	EPA 8321B	Triclopyr**	0.0040	U	ug/L	P364627	
2090304	EPA 8270E	Aldrin	4.6	U	ng/L	P364810	
		Alpha-BHC	2.3	U	ng/L	P364810	
		Alpha-Chlordane	1.1	U	ng/L	P364810	
		Beta-BHC	11	U	ng/L	P364810	
		Bifenthrin**	4.6	U	ng/L	P364810	
		Delta-BHC	11	U	ng/L	P364810	
		Gamma-BHC	11	U	ng/L	P364810	
		Carbophenothion	14	U	ng/L	P364810	
		Chlorothalonil	2.3	U	ng/L	P364810	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P364810	
		Cypermethrin	23	U	ng/L	P364810	
		DDD-p,p'	9.2	U	ng/L	P364810	
		DDE-p,p'	9.2	U	ng/L	P364810	
		DDT-p,p'	11	U	ng/L	P364810	
		Dicofol	34	U	ng/L	P364810	
		Dieldrin	4.6	U	ng/L	P364810	
		Endosulfan I	4.6	U	ng/L	P364810	
		Endosulfan II	4.6	U	ng/L	P364810	
		Endosulfan Sulfate	2.3	U	ng/L	P364810	
		Endrin	2.3	U	ng/L	P364810	
		Endrin Aldehyde	2.3	U	ng/L	P364810	
		Endrin Ketone	2.3	U	ng/L	P364810	
		Ethalfuralin**	3.4	U	ng/L	P364810	
		Gamma-Chlordane	1.1	U	ng/L	P364810	
		Heptachlor	1.7	U	ng/L	P364810	
		Heptachlor Epoxide	2.3	U	ng/L	P364810	
		Hexachlorobenzene**	2.3	U	ng/L	P364810	
		Methoxychlor	4.6	U	ng/L	P364810	
		Mirex	2.3	U	ng/L	P364810	
		Permethrin	11	U	ng/L	P364810	
		Trans-Nonachlor**	1.1	U	ng/L	P364810	
		Trifluralin	2.9	U	ng/L	P364810	
	EPA 8276	Chlordane	5.7	U	ng/L	P364810	
		Toxaphene	34	U	ng/L	P364810	
2090305	EPA 8270E	Acetochlor	0.28	U	ng/L	P365018	
		Alachlor	0.28	U	ng/L	P365018	
		Ametryn	0.79	I	ng/L	P365018	
		Atrazine	87		ng/L	P365018	
		Atrazine Desethyl	7.8		ng/L	P365018	
		Azinphos Methyl	5.7	U	ng/L	P365018	
		Bromacil	0.57	U	ng/L	P365018	
		Butylate	0.45	UJ	ng/L	P365018	RPD
		Chlorpyrifos Ethyl	0.28	U	ng/L	P365018	
		Chlorpyrifos Methyl	0.11	U	ng/L	P365018	

Field ID: G5NW0129

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090305	EPA 8270E	Cyanazine	3.7	U	ng/L	P365018	
		Demeton	7.9	UJ	ng/L	P365018	RPD
		Diazinon	0.14	U	ng/L	P365018	
		Dimethenamid**	0.20	I	ng/L	P365018	
		Disulfoton	0.57	U	ng/L	P365018	
		Dithiopyr**	0.11	U	ng/L	P365018	
		EPTC	1.4	UJ	ng/L	P365018	RPD
		Ethion	0.17	U	ng/L	P365018	
		Ethoprop	0.11	UJ	ng/L	P365018	LCS, RPD
		Fenamiphos	0.57	U	ng/L	P365018	
		Fipronil	0.29	IJ	ng/L	P365018	RPD
		Fipronil Desulfinyl**	0.24	I	ng/L	P365018	
		Fipronil Sulfide	0.27	I	ng/L	P365018	
		Fipronil Sulfone	0.90		ng/L	P365018	
		Fonofos	0.23	UJ	ng/L	P365018	LCS
		Hexazinone	2.5	J	ng/L	P365018	LCS
		Malathion	0.40	U	ng/L	P365018	
		Metalaxyl	0.34	UJ	ng/L	P365018	LCS, MS, RPD
		Metolachlor	9.8		ng/L	P365018	
		Metribuzin	0.85	U	ng/L	P365018	
		Mevinphos	0.57	UJ	ng/L	P365018	LCS, RPD
		Molinate	0.34	UJ	ng/L	P365018	RPD
		Norflurazon	0.57	U	ng/L	P365018	
		Oxadiazon**	0.21	I	ng/L	P365018	
		Parathion Ethyl	0.28	U	ng/L	P365018	
		Parathion Methyl	0.62	UJ	ng/L	P365018	LCS
		Pendimethalin	1.1	U	ng/L	P365018	
		Phorate	0.28	UJ	ng/L	P365018	LCS, RPD
		Prodiamine**	0.20	U	ng/L	P365018	MS
		Prometon	1.0	U	ng/L	P365018	
		Prometryn	0.23	U	ng/L	P365018	
		Simazine	2.2	I	ng/L	P365018	
		Tebuconazole**	1.9	I	ng/L	P365018	
		Terbufos	0.11	UJ	ng/L	P365018	LCS
		Terbuthylazine	0.48	U	ng/L	P365018	
2090311	EPA 200.7 Rev. 4.4	Iron	190		ug/L	P365445	
		Manganese	30.2		ug/L	P365001	
		Zinc	5.0	U	ug/L	P365001	
	EPA 200.8 Rev. 5.4	Aluminum	86		ug/L	P365001	
		Antimony	0.060	I	ug/L	P365001	
		Arsenic	0.83		ug/L	P365001	
		Cadmium	0.020	U	ug/L	P365001	
		Chromium	0.40	U	ug/L	P365001	
		Copper	0.40	I	ug/L	P365001	

Field ID: G5NW0129

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090311	EPA 200.8 Rev. 5.4	Lead	0.20	U	ug/L	P365001	
		Nickel	0.50	U	ug/L	P365001	
		Selenium	0.20	U	ug/L	P365001	
		Silver	0.010	U	ug/L	P365001	
		Thallium	0.10	U	ug/L	P365001	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate.

EPA 8270E: MS accuracy for hexazinone not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

**Sample Location: PERDIDO BAY (LOWER SEGMENT) OFF
 DUPONT POINT**

Collection Date/Time: 05/30/2019 12:10

Field ID: G5NW0130

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2090285	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P364834	
	EPA 300.0	Bromide	25		mg Br/L	P365717	
	EPA 300.0 Rev. 2.1	Chloride	6.7E+03		mg Cl/L	P365163	
		Sulfate	950		mg SO4/L	P365164	
	SM 2120 B	Color (true)	14		PCU	P364844	
	SM 2320 B-97	Total Alkalinity	54		mg CaCO3/L	P364930	
	SM 2540 C-97	TDS	1.36E+04		mg/L	P365176	
	SM 2540 D-97	TSS	7.5	U	mg/L	P365065	
	SM 4500 F-C-97	Fluoride	0.48	I	mg F/L	P364932	
2090286	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P365210	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	I	mg N/L	P365108	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P364990	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P365019	
	SM 5310 B-00	Organic Carbon	4.5		mg C/L	P364951	
2090287	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P364853	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The MDL was elevated because of analytical difficulties.

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P364834

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365001

Component	Result	Code	Units
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365445

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365001

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	I	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
Batch ID: P365161

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0
Batch ID: P365717

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365163

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365164

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365210

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365108

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364990

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365019

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364853

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

Reference Method: EPA 8270E
Batch ID: P364810

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P364810

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

Reference Method: EPA 8270E

Batch ID: P365018

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
Metaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P365018

Component	Result	Code	Units
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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P364810

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

Reference Method: EPA 8321B
Batch ID: P364627

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	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	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
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P364627

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P364873

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
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: P364844

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P364930

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

Reference Method: SM 2540 C-97
Batch ID: P365176

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P364981

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P365065

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P364932

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P364949

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

Reference Method: SM 5310 B-00
Batch ID: P364951

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: P365001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Manganese	99.3		P	85 - 115
Zinc	98.8		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365445

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	93.4		P	85 - 115
Antimony	97.6		P	85 - 115
Arsenic	101		P	85 - 115
Cadmium	97.4		P	85 - 115
Chromium	103		P	85 - 115
Copper	99.7		P	85 - 115
Lead	90.3		P	85 - 115
Nickel	101		P	85 - 115
Selenium	107		P	85 - 115
Silver	97.6		P	85 - 115
Thallium	95.6		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P365161

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

Reference Method: EPA 300.0
Batch ID: P365717

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365163

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365164

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365210

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365108

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365019

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364853

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

Reference Method: EPA 8270E
Batch ID: P364810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	31.4	31.8	P/P	20 - 93.0
Alpha-BHC	81.8	99.1	P/P	57 - 119
Alpha-Chlordane	60.8	63.4	P/P	58 - 112
Beta-BHC	107	99.4	P/P	56 - 149
Bifenthrin	59.5	57.4	P/P	50 - 130
Carbophenothion	70.3	70.0	P/P	26 - 147
Chlorothalonil	87.3	85.6	P/P	20 - 155
Cis-Nonachlor	63.3	63.8	P/P	50 - 130
Cypermethrin	54.1	49.3	P/P	40 - 137
DDD-p,p'	73.7	74.3	P/P	65 - 129
DDE-p,p'	57.4	60.8	P/P	57 - 116
DDT-p,p'	79.5	81.2	P/P	53 - 133
Delta-BHC	98.2	102	P/P	59 - 163
Dicofol	86.3	79.6	P/P	24 - 138
Dieldrin	65.0	68.9	P/P	60 - 120
Endosulfan I	67.4	70.1	P/P	64 - 118
Endosulfan II	77.2	78.8	P/P	58 - 142
Endosulfan Sulfate	80.6	74.7	P/P	60 - 127
Endrin	71.4	75.0	P/P	59 - 122
Endrin Aldehyde	76.6	73.5	P/P	49 - 132
Endrin Ketone	74.7	72.7	P/P	64 - 121
Ethalfuralin	75.6	77.5	P/P	50 - 130

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P364810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-BHC	102	111	P/P	56 - 141
Gamma-Chlordane	59.1	60.4	P/P	56 - 110
Heptachlor	51.3	53.9	P/P	46 - 96.0
Heptachlor Epoxide	66.4	69.2	P/P	61 - 112
Hexachlorobenzene	56.2	57.8	P/P	50 - 130
Methoxychlor	87.6	92.9	P/P	63 - 134
Mirex	45.1	45.6	P/P	45 - 100
Permethrin	54.9	53.3	P/P	53 - 115
Trans-Nonachlor	56.1	57.5	P/P	50 - 130
Trifluralin	69.2	71.2	P/P	39 - 142

Reference Method: EPA 8270E
Batch ID: P365018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	85.4	96.9	P/P	69 - 122
Alachlor	86.7	94.1	P/P	71 - 120
Ametryn	92.1	89.8	P/P	47 - 138
Atrazine	99.6	93.3	P/P	74 - 124
Atrazine Desethyl	61.9	53.8	P/P	38 - 138
Azinphos Methyl	98.8	98.5	P/P	69 - 154
Bromacil	72.5	71.0	P/P	39 - 121
Butylate	29.7	56.7	P/P	27 - 87.0
Chlorpyrifos Ethyl	86.1	92.7	P/P	69 - 118
Chlorpyrifos Methyl	70.2	82.7	P/P	70 - 120
Cyanazine	81.9	69.3	P/P	20 - 250
Demeton	40.0	63.9	P/P	39 - 118
Diazinon	74.8	89.1	P/P	68 - 127
Dimethenamid	85.7	96.2	P/P	66 - 125
Disulfoton	52.9	67.1	P/P	52 - 126
Dithiopyr	92.5	97.0	P/P	67 - 127
EPTC	30.5	57.5	P/P	24 - 88.0
Ethion	98.1	93.0	P/P	51 - 132
Ethoprop	55.0	84.9	F/P	58 - 117
Fenamiphos	51.1	57.3	P/P	38 - 139
Fipronil	61.7	97.7	P/P	61 - 124
Fipronil Desulfinyl	86.8	92.3	P/P	47 - 120
Fipronil Sulfide	88.6	97.7	P/P	56 - 119
Fipronil Sulfone	84.3	92.1	P/P	50 - 117
Fonofos	56.9	75.5	F/P	60 - 121
Hexazinone	52.6	57.0	F/P	55 - 137
Malathion	95.3	93.9	P/P	66 - 126
Metalaxyl	5.96	12.2	F/F	33 - 140
Metolachlor	92.6	99.4	P/P	69 - 119
Metribuzin	71.4	79.0	P/P	31 - 238
Mevinphos	36.2	65.6	F/P	42 - 113
Molinate	34.3	64.3	P/P	32 - 96.0
Norflurazon	104	95.4	P/P	54 - 123
Oxadiazon	102	105	P/P	63 - 128
Parathion Ethyl	76.9	87.4	P/P	72 - 111
Parathion Methyl	72.5	91.0	F/P	74 - 126
Pendimethalin	78.6	93.2	P/P	61 - 131

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P365018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	44.0	66.3	F/P	51 - 115
Prodiamine	92.2	108	P/P	38 - 144
Prometon	87.0	83.6	P/P	54 - 119
Prometryn	96.4	94.1	P/P	63 - 120
Simazine	94.4	93.8	P/P	75 - 126
Tebuconazole	80.5	75.9	P/P	20 - 119
Terbufos	58.1	76.5	F/P	64 - 116
Terbutylazine	95.8	94.3	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P364810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	60.7	70.5	P/P	43 - 128
Toxaphene	52.5	59.4	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P364627

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	95.3		P	40 - 150
3-Hydroxycarbofuran	78.7		P	40 - 150
Acetaminophen	83.6		P	30 - 150
Aldicarb	84.7		P	30 - 150
Aldicarb Sulfone	92.4		P	40 - 150
Aldicarb Sulfoxide	87.3		P	40 - 150
Bentazon	129		P	30 - 150
Carbamazepine	94.6		P	40 - 150
Carbaryl	83.9		P	40 - 150
Carbofuran	68.7		P	40 - 150
Diuron	93.2		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	91.5		P	40 - 150
Hydrocodone	100		P	40 - 150
Ibuprofen	81.8		P	40 - 150
Imazapyr	95.7		P	40 - 150
Imidacloprid	102		P	40 - 150
Linuron	77.6		P	40 - 150
MCPP	114		P	40 - 150
Methiocarb	72.5		P	40 - 150
Methomyl	81.3		P	40 - 150
Naproxen	89.0		P	40 - 150
Oxamyl	97.3		P	40 - 150
Primidone	92.0		P	40 - 150
Propoxur	80.9		P	40 - 150
Pyraclostrobin	70.7		P	40 - 150
Triclopyr	72.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P364873

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

Reference Method: EPA 8321B
Batch ID: P364873

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	86.9		P	40 - 150
AMPA	99.1		P	40 - 150
Endothall	88.1		P	40 - 150
Glufosinate	76.2		P	40 - 150
Glyphosate	74.1		P	40 - 140
Sucralose	93.7		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P364844

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P364930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P364932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P364949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P364951

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089895	Manganese	101		P	80 - 120
2089895	Zinc	102		P	80 - 120
2090436	Manganese	100	101	P/P	80 - 120
2090436	Zinc	101	101	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365445

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089909	Iron	104		P	80 - 120
2092811	Iron	104	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089895	Aluminum	93.1		P	80 - 120
2089895	Antimony	98.1		P	80 - 120
2089895	Arsenic	102		P	80 - 120
2089895	Cadmium	99.8		P	80 - 120
2089895	Chromium	102		P	80 - 120
2089895	Copper	94.8		P	80 - 120
2089895	Lead	91.6		P	80 - 120
2089895	Nickel	98.6		P	80 - 120
2089895	Selenium	105		P	80 - 120
2089895	Silver	96.1		P	80 - 120
2089895	Thallium	98.1		P	80 - 120
2090436	Aluminum	93.1	92.6	P/P	80 - 120
2090436	Antimony	98.6	98.7	P/P	80 - 120
2090436	Arsenic	97.2	98.3	P/P	80 - 120
2090436	Cadmium	100	99.9	P/P	80 - 120
2090436	Chromium	99.7	100	P/P	80 - 120
2090436	Copper	94.8	95.4	P/P	80 - 120
2090436	Lead	90.3	90.3	P/P	80 - 120
2090436	Nickel	96.8	96.6	P/P	80 - 120
2090436	Selenium	103	103	P/P	80 - 120
2090436	Silver	97.1	96.8	P/P	80 - 120
2090436	Thallium	97.9	98.8	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P365161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090173	Bromide	96.2	96.7	P/P	90 - 110
2090174	Bromide	96.2		P	90 - 110

Reference Method: EPA 300.0
Batch ID: P365717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2094494	Bromide	94.5	95.0	P/P	90 - 110
2094770	Bromide	96.3		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090181	Chloride	96.6		P	90 - 110
2090334	Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090181	Sulfate	95.6		P	90 - 110
2090334	Sulfate	99.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090253	Ammonia-N	103	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090009	Kjeldahl Nitrogen	87.2	89.6	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090283	NO2NO3-N	99.4	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090253	Total-P	95.2	93.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090284	O-Phosphate-P	93.2	94.9	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P364810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090438	Aldrin	45.6	40.6	P/P	25 - 92.0
2090438	Alpha-BHC	106	113	P/P	49 - 130
2090438	Alpha-Chlordane	71.8	66.3	P/P	50 - 115
2090438	Beta-BHC	130	133	P/P	43 - 157
2090438	Bifenthrin	69.2	55.4	P/P	50 - 130
2090438	Carbophenothion	98.6	94.6	P/P	27 - 180
2090438	Chlorothalonil	14.9	30.4	P/P	10 - 216
2090438	Cis-Nonachlor	71.2	63.2	P/P	50 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P364810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090438	Cypermethrin	63.6	53.6	P/P	40 - 153
2090438	DDD-p,p'	86.7	80.9	P/P	53 - 128
2090438	DDE-p,p'	68.4	63.1	P/P	48 - 116
2090438	DDT-p,p'	96.0	83.7	P/P	47 - 128
2090438	Delta-BHC	163	149	P/P	51 - 196
2090438	Dicofol	94.1	96.1	P/P	10 - 147
2090438	Dieldrin	85.0	74.7	P/P	48 - 128
2090438	Endosulfan I	83.9	79.6	P/P	58 - 126
2090438	Endosulfan II	88.0	85.4	P/P	50 - 150
2090438	Endosulfan Sulfate	96.9	98.8	P/P	56 - 130
2090438	Endrin	88.1	83.6	P/P	50 - 126
2090438	Endrin Aldehyde	65.5	67.8	P/P	12 - 145
2090438	Endrin Ketone	91.2	91.1	P/P	59 - 132
2090438	Ethalfuralin	95.6	88.5	P/P	50 - 130
2090438	Gamma-BHC	127	133	P/P	50 - 155
2090438	Gamma-Chlordane	69.3	62.2	P/P	50 - 112
2090438	Heptachlor	60.2	57.1	P/P	41 - 98.0
2090438	Heptachlor Epoxide	80.8	76.5	P/P	55 - 117
2090438	Hexachlorobenzene	65.0	63.5	P/P	50 - 130
2090438	Methoxychlor	105	98.6	P/P	55 - 133
2090438	Mirex	54.8	46.3	P/P	44 - 101
2090438	Permethrin	63.6	52.0	P/P	52 - 124
2090438	Trans-Nonachlor	65.7	59.0	P/P	50 - 130
2090438	Trifluralin	86.4	79.6	P/P	10 - 201

Reference Method: EPA 8270E
Batch ID: P365018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091082	Acetochlor	97.4	108	P/P	63 - 129
2091082	Alachlor	100	108	P/P	65 - 127
2091082	Ametryn	97.9	100	P/P	40 - 164
2091082	Atrazine	100	114	P/P	66 - 135
2091082	Atrazine Desethyl	64.7	66.3	P/P	14 - 157
2091082	Azinphos Methyl	103	116	P/P	49 - 180
2091082	Bromacil	95.2	106	P/P	48 - 130
2091082	Butylate	51.4	51.9	P/P	10 - 94.0
2091082	Chlorpyrifos Ethyl	97.4	102	P/P	58 - 123
2091082	Chlorpyrifos Methyl	85.0	90.6	P/P	58 - 125
2091082	Cyanazine	95.5	93.4	P/P	24 - 253
2091082	Demeton	61.4	64.5	P/P	25 - 149
2091082	Diazinon	94.3	97.2	P/P	59 - 144
2091082	Dimethenamid	99.7	108	P/P	46 - 139
2091082	Disulfoton	65.7	69.5	P/P	54 - 132
2091082	Dithiopyr	101	109	P/P	64 - 130
2091082	EPTC	51.6	54.7	P/P	10 - 92.0
2091082	Ethion	103	112	P/P	30 - 148
2091082	Ethoprop	81.7	85.2	P/P	50 - 130
2091082	Fenamiphos	86.0	83.9	P/P	49 - 142
2091082	Fipronil	107	117	P/P	46 - 140
2091082	Fipronil Desulfanyl	91.5	103	P/P	30 - 121
2091082	Fipronil Sulfide	98.9	110	P/P	31 - 136

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P365018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091082	Fipronil Sulfone	98.9	109	P/P	16 - 136
2091082	Fonofos	83.0	81.8	P/P	55 - 129
2091082	Malathion	97.0	106	P/P	56 - 135
2091082	Metalaxyl	51.9	23.2	F/F	54 - 135
2091082	Metolachlor	101	111	P/P	51 - 140
2091082	Metribuzin	104	98.9	P/P	45 - 254
2091082	Mevinphos	74.8	67.3	P/P	33 - 131
2091082	Molinate	58.8	61.6	P/P	14 - 98.0
2091082	Norflurazon	96.6	114	P/P	34 - 136
2091082	Oxadiazon	99.5	112	P/P	67 - 116
2091082	Parathion Ethyl	89.3	98.3	P/P	66 - 118
2091082	Parathion Methyl	92.4	101	P/P	64 - 136
2091082	Pendimethalin	103	109	P/P	59 - 144
2091082	Phorate	70.0	71.8	P/P	42 - 130
2091082	Prodiamine	135	150	P/F	42 - 148
2091082	Prometon	103	109	P/P	59 - 134
2091082	Prometryn	98.0	109	P/P	54 - 135
2091082	Simazine	95.9	100	P/P	53 - 156
2091082	Tebuconazole	94.3	100	P/P	10 - 131
2091082	Terbufos	82.0	83.9	P/P	57 - 131
2091082	Terbutylazine	100	109	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P364810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089607	Chlordane	67.8	64.8	P/P	34 - 136
2089607	Toxaphene	46.2	51.8	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P364627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089542	3-Hydroxycarbofuran	90.9	82.6	P/P	40 - 150
2089542	Aldicarb	68.5	66.0	P/P	30 - 150
2089542	Aldicarb Sulfone	99.1	103	P/P	40 - 150
2089542	Aldicarb Sulfoxide	40.2	39.8	P/F	40 - 150
2089542	Carbaryl	69.8	68.1	P/P	40 - 150
2089542	Carbofuran	61.5	64.8	P/P	40 - 150
2089542	Methiocarb	63.2	62.9	P/P	40 - 150
2089542	Methomyl	83.4	71.3	P/P	40 - 150
2089542	Oxamyl	88.5	83.5	P/P	40 - 150
2089542	Propoxur	68.5	67.5	P/P	40 - 150
2089543	2,4-D	124	109	P/P	40 - 150
2089543	Acetaminophen	83.8	87.9	P/P	30 - 150
2089543	Bentazon	102	87.8	P/P	30 - 150
2089543	Carbamazepine	76.6	85.9	P/P	40 - 150
2089543	Diuron	77.8	79.3	P/P	40 - 150
2089543	Fenuron	99.4	86.2	P/P	40 - 150
2089543	Fluridone	92.8	91.3	P/P	40 - 150
2089543	Hydrocodone	94.6	98.2	P/P	40 - 150
2089543	Ibuprofen	72.6	71.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P364627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089543	Imidacloprid	131	163	P/F	40 - 150
2089543	Linuron	72.5	67.3	P/P	40 - 150
2089543	MCPP	167	146	F/P	40 - 150
2089543	Naproxen	125	95.6	P/P	40 - 150
2089543	Primidone	101	97.1	P/P	40 - 150
2089543	Pyraclostrobin	86.4	80.7	P/P	40 - 150
2089543	Triclopyr	113	91.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P364873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089908	Acesulfame K	89.0	87.8	P/P	40 - 150
2089908	AMPA	60.0	69.1	P/P	40 - 150
2089908	Endothall	93.0	93.3	P/P	40 - 150
2089908	Glufosinate	68.7	77.6	P/P	40 - 150
2089908	Glyphosate	80.8	84.6	P/P	40 - 140
2089908	Sucralose	138	139	P/P	40 - 150

Reference Method: SM 5310 B-00
Batch ID: P364949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2089947	Organic Carbon	100	102	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P364951

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090004	Organic Carbon	101	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P364834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090295	Turbidity	2.01	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090436	Manganese	0.641	Spike	P	0 - 20
2090436	Zinc	0.226	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365445

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2092811	Iron	0.405	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090436	Aluminum	0.508	Spike	P	0 - 20
2090436	Antimony	0.101	Spike	P	0 - 20
2090436	Arsenic	1.03	Spike	P	0 - 20
2090436	Cadmium	0.100	Spike	P	0 - 20
2090436	Chromium	0.554	Spike	P	0 - 20
2090436	Copper	0.605	Spike	P	0 - 20
2090436	Lead	0.0834	Spike	P	0 - 20
2090436	Nickel	0.211	Spike	P	0 - 20
2090436	Selenium	0.300	Spike	P	0 - 20
2090436	Silver	0.313	Spike	P	0 - 20
2090436	Thallium	0.862	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P365161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090173	Bromide	0.456	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P365717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2094494	Bromide	0.424	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090181	Chloride	0.869	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090181	Sulfate	0.971	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090253	Ammonia-N	1.61	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090009	Kjeldahl Nitrogen	2.57	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090283	NO2NO3-N	0.966	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090253	Total-P	1.88	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090284	O-Phosphate-P	1.81	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P364810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090438	Aldrin	11.6	Spike	P	0 - 30
2090438	Alpha-BHC	6.39	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P364810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090438	Alpha-Chlordane	8.00	Spike	P	0 - 30
2090438	Beta-BHC	2.94	Spike	P	0 - 30
2090438	Bifenthrin	22.2	Spike	P	0 - 30
2090438	Carbophenothion	4.12	Spike	P	0 - 30
2090438	Chlorothalonil	68.4	Spike	F	0 - 30
2090438	Cis-Nonachlor	11.9	Spike	P	0 - 30
2090438	Cypermethrin	17.0	Spike	P	0 - 30
2090438	DDD-p,p'	6.88	Spike	P	0 - 30
2090438	DDE-p,p'	8.10	Spike	P	0 - 30
2090438	DDT-p,p'	13.6	Spike	P	0 - 30
2090438	Delta-BHC	8.98	Spike	P	0 - 30
2090438	Dicofol	2.09	Spike	P	0 - 30
2090438	Dieldrin	12.9	Spike	P	0 - 30
2090438	Endosulfan I	5.22	Spike	P	0 - 30
2090438	Endosulfan II	2.99	Spike	P	0 - 30
2090438	Endosulfan Sulfate	1.93	Spike	P	0 - 30
2090438	Endrin	5.33	Spike	P	0 - 30
2090438	Endrin Aldehyde	3.39	Spike	P	0 - 30
2090438	Endrin Ketone	0.133	Spike	P	0 - 30
2090438	Ethalfuralin	7.74	Spike	P	0 - 30
2090438	Gamma-BHC	4.43	Spike	P	0 - 30
2090438	Gamma-Chlordane	10.7	Spike	P	0 - 30
2090438	Heptachlor	5.25	Spike	P	0 - 30
2090438	Heptachlor Epoxide	5.46	Spike	P	0 - 30
2090438	Hexachlorobenzene	2.41	Spike	P	0 - 30
2090438	Methoxychlor	5.93	Spike	P	0 - 30
2090438	Mirex	16.8	Spike	P	0 - 30
2090438	Permethrin	20.1	Spike	P	0 - 30
2090438	Trans-Nonachlor	10.7	Spike	P	0 - 30
2090438	Trifluralin	8.26	Spike	P	0 - 30
LFB	Aldrin	1.41	LCS	P	0 - 30
LFB	Alpha-BHC	19.1	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.29	LCS	P	0 - 30
LFB	Beta-BHC	7.72	LCS	P	0 - 30
LFB	Bifenthrin	3.61	LCS	P	0 - 30
LFB	Carbophenothion	0.470	LCS	P	0 - 30
LFB	Chlorothalonil	2.00	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.654	LCS	P	0 - 30
LFB	Cypermethrin	9.43	LCS	P	0 - 30
LFB	DDD-p,p'	0.867	LCS	P	0 - 30
LFB	DDE-p,p'	5.82	LCS	P	0 - 30
LFB	DDT-p,p'	2.18	LCS	P	0 - 30
LFB	Delta-BHC	3.43	LCS	P	0 - 30
LFB	Dicofol	8.14	LCS	P	0 - 30
LFB	Dieldrin	5.92	LCS	P	0 - 30
LFB	Endosulfan I	3.92	LCS	P	0 - 30
LFB	Endosulfan II	2.07	LCS	P	0 - 30
LFB	Endosulfan Sulfate	7.63	LCS	P	0 - 30
LFB	Endrin	4.90	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.11	LCS	P	0 - 30
LFB	Endrin Ketone	2.72	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P364810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ethalfuralin	2.42	LCS	P	0 - 30
LFB	Gamma-BHC	8.96	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.17	LCS	P	0 - 30
LFB	Heptachlor	5.06	LCS	P	0 - 30
LFB	Heptachlor Epoxide	4.21	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.67	LCS	P	0 - 30
LFB	Methoxychlor	5.88	LCS	P	0 - 30
LFB	Mirex	0.971	LCS	P	0 - 30
LFB	Permethrin	2.93	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.47	LCS	P	0 - 30
LFB	Trifluralin	2.92	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P365018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091082	Acetochlor	10.1	Spike	P	0 - 30
2091082	Alachlor	7.11	Spike	P	0 - 30
2091082	Ametryn	2.52	Spike	P	0 - 30
2091082	Atrazine	13.0	Spike	P	0 - 30
2091082	Atrazine Desethyl	2.48	Spike	P	0 - 30
2091082	Azinphos Methyl	12.2	Spike	P	0 - 30
2091082	Bromacil	9.45	Spike	P	0 - 30
2091082	Butylate	0.918	Spike	P	0 - 30
2091082	Chlorpyrifos Ethyl	4.72	Spike	P	0 - 30
2091082	Chlorpyrifos Methyl	6.35	Spike	P	0 - 30
2091082	Cyanazine	2.18	Spike	P	0 - 30
2091082	Demeton	4.84	Spike	P	0 - 30
2091082	Diazinon	2.97	Spike	P	0 - 30
2091082	Dimethenamid	7.83	Spike	P	0 - 30
2091082	Disulfoton	5.57	Spike	P	0 - 30
2091082	Dithiopyr	7.69	Spike	P	0 - 30
2091082	EPTC	5.95	Spike	P	0 - 30
2091082	Ethion	8.18	Spike	P	0 - 30
2091082	Ethoprop	4.23	Spike	P	0 - 30
2091082	Fenamiphos	2.47	Spike	P	0 - 30
2091082	Fipronil	9.64	Spike	P	0 - 30
2091082	Fipronil Desulfinyl	12.0	Spike	P	0 - 30
2091082	Fipronil Sulfide	10.6	Spike	P	0 - 30
2091082	Fipronil Sulfone	10.0	Spike	P	0 - 30
2091082	Fonofos	1.46	Spike	P	0 - 30
2091082	Hexazinone	1.91	Spike	P	0 - 30
2091082	Malathion	8.88	Spike	P	0 - 30
2091082	Metalaxyl	76.4	Spike	F	0 - 30
2091082	Metolachlor	9.01	Spike	P	0 - 30
2091082	Metribuzin	4.65	Spike	P	0 - 30
2091082	Mevinphos	10.5	Spike	P	0 - 30
2091082	Molinate	4.56	Spike	P	0 - 30
2091082	Norflurazon	16.3	Spike	P	0 - 30
2091082	Oxadiazon	11.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P365018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091082	Parathion Ethyl	9.61	Spike	P	0 - 30
2091082	Parathion Methyl	8.48	Spike	P	0 - 30
2091082	Pendimethalin	5.48	Spike	P	0 - 30
2091082	Phorate	2.54	Spike	P	0 - 30
2091082	Prodiamine	10.3	Spike	P	0 - 30
2091082	Prometon	5.52	Spike	P	0 - 30
2091082	Prometryn	10.5	Spike	P	0 - 30
2091082	Simazine	4.26	Spike	P	0 - 30
2091082	Tebuconazole	5.97	Spike	P	0 - 30
2091082	Terbufos	2.36	Spike	P	0 - 30
2091082	Terbuthylazine	8.53	Spike	P	0 - 30
LFB	Acetochlor	12.6	LCS	P	0 - 30
LFB	Alachlor	8.20	LCS	P	0 - 30
LFB	Ametryn	2.50	LCS	P	0 - 30
LFB	Atrazine	6.48	LCS	P	0 - 30
LFB	Atrazine Desethyl	13.8	LCS	P	0 - 30
LFB	Azinphos Methyl	0.250	LCS	P	0 - 30
LFB	Bromacil	2.10	LCS	P	0 - 30
LFB	Butylate	62.7	LCS	F	0 - 30
LFB	Chlorpyrifos Ethyl	7.39	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	16.4	LCS	P	0 - 30
LFB	Cyanazine	16.7	LCS	P	0 - 30
LFB	Demeton	45.9	LCS	F	0 - 30
LFB	Diazinon	17.5	LCS	P	0 - 30
LFB	Dimethenamid	11.6	LCS	P	0 - 30
LFB	Disulfoton	23.6	LCS	P	0 - 30
LFB	Dithiopyr	4.66	LCS	P	0 - 30
LFB	EPTC	61.3	LCS	F	0 - 30
LFB	Ethion	5.34	LCS	P	0 - 30
LFB	Ethoprop	42.8	LCS	F	0 - 30
LFB	Fenamiphos	11.3	LCS	P	0 - 30
LFB	Fipronil	45.2	LCS	F	0 - 30
LFB	Fipronil Desulfinyl	6.09	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.76	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.77	LCS	P	0 - 30
LFB	Fonofos	28.0	LCS	P	0 - 30
LFB	Hexazinone	8.07	LCS	P	0 - 30
LFB	Malathion	1.41	LCS	P	0 - 30
LFB	Metalaxyl	69.0	LCS	F	0 - 30
LFB	Metolachlor	7.09	LCS	P	0 - 30
LFB	Metribuzin	10.1	LCS	P	0 - 30
LFB	Mevinphos	57.7	LCS	F	0 - 30
LFB	Molinate	60.8	LCS	F	0 - 30
LFB	Norflurazon	8.13	LCS	P	0 - 30
LFB	Oxadiazon	2.41	LCS	P	0 - 30
LFB	Parathion Ethyl	12.9	LCS	P	0 - 30
LFB	Parathion Methyl	22.6	LCS	P	0 - 30
LFB	Pendimethalin	17.0	LCS	P	0 - 30
LFB	Phorate	40.3	LCS	F	0 - 30
LFB	Prodiamine	16.2	LCS	P	0 - 30
LFB	Prometon	4.01	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P365018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prometryn	2.47	LCS	P	0 - 30
LFB	Simazine	0.663	LCS	P	0 - 30
LFB	Tebuconazole	5.78	LCS	P	0 - 30
LFB	Terbufos	27.3	LCS	P	0 - 30
LFB	Terbutylazine	1.60	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P364810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2089607	Chlordane	4.63	Spike	P	0 - 30
2089607	Toxaphene	11.4	Spike	P	0 - 30
LFB	Chlordane	15.0	LCS	P	0 - 30
LFB	Toxaphene	12.4	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P364627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2089542	3-Hydroxycarbofuran	9.62	Spike	P	0 - 30
2089542	Aldicarb	3.66	Spike	P	0 - 30
2089542	Aldicarb Sulfone	4.22	Spike	P	0 - 30
2089542	Aldicarb Sulfoxide	1.22	Spike	P	0 - 30
2089542	Carbaryl	2.54	Spike	P	0 - 30
2089542	Carbofuran	5.22	Spike	P	0 - 30
2089542	Methiocarb	0.515	Spike	P	0 - 30
2089542	Methomyl	15.6	Spike	P	0 - 30
2089542	Oxamyl	5.85	Spike	P	0 - 30
2089542	Propoxur	1.49	Spike	P	0 - 30
2089543	2,4-D	12.2	Spike	P	0 - 30
2089543	Acetaminophen	4.72	Spike	P	0 - 30
2089543	Bentazon	7.76	Spike	P	0 - 30
2089543	Carbamazepine	10.7	Spike	P	0 - 30
2089543	Diuron	1.73	Spike	P	0 - 30
2089543	Fenuron	14.3	Spike	P	0 - 30
2089543	Fluridone	0.803	Spike	P	0 - 30
2089543	Hydrocodone	3.78	Spike	P	0 - 30
2089543	Ibuprofen	2.01	Spike	P	0 - 30
2089543	Imazapyr	35.2	Spike	F	0 - 30
2089543	Imidacloprid	18.9	Spike	P	0 - 30
2089543	Linuron	7.48	Spike	P	0 - 30
2089543	MCP	13.5	Spike	P	0 - 30
2089543	Naproxen	26.8	Spike	P	0 - 30
2089543	Primidone	4.11	Spike	P	0 - 30
2089543	Pyraclostrobin	6.91	Spike	P	0 - 30
2089543	Triclopyr	21.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P364873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2089908	Acesulfame K	1.17	Spike	P	0 - 30
2089908	AMPA	9.09	Spike	P	0 - 30
2089908	Endothall	0.382	Spike	P	0 - 30
2089908	Glufosinate	12.2	Spike	P	0 - 30
2089908	Glyphosate	3.68	Spike	P	0 - 30
2089908	Sucralose	0.783	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P364844

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090218	Color (true)	3.15	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P364930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2089083	Total Alkalinity	1.42	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P365176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090334	TDS	1.01	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P364932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2089083	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P364949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2089947	Organic Carbon	1.02	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P364951

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090004	Organic Carbon	0.748	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: 2090298
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	74.5	P	30 - 160

Lab Sample ID: 2090299
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.2	P	30 - 160
EPA 8321B	Diuron-d6	74.4	P	30 - 160
EPA 8321B	Endothall-d6	416	F	30 - 160
EPA 8321B	Endothall-d6	416	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	42.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	42.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	101	P	30 - 160
EPA 8321B	Primidone-d5	89.1	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	30 - 160

Lab Sample ID: 2090300
Field Sample ID: G4NW0484

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	92.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.5	P	30 - 160
EPA 8321B	Diuron-d6	81.7	P	30 - 160
EPA 8321B	Endothall-d6	290	F	30 - 160
EPA 8321B	Endothall-d6	290	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	41.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	41.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	104	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	135	P	30 - 160
EPA 8321B	Sucralose-d6	135	P	30 - 160

Lab Sample ID: 2090301
Field Sample ID: G4NW0483

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.5	P	30 - 160
EPA 8321B	Diuron-d6	73.1	P	30 - 160
EPA 8321B	Endothall-d6	293	F	30 - 160
EPA 8321B	Endothall-d6	293	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	113	P	30 - 160
EPA 8321B	Primidone-d5	97.2	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2090304
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.6	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	79.5	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	44.0	P	30 - 103
EPA 8276	PCNB	80.3	P	37 - 143

Lab Sample ID: 2090305
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	90.2	P	68 - 130
EPA 8270E	Terbufos-d10	76.8	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A91791

Included Lab Sample IDs: 2090282, 2090285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	98.5	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A91794

Included Lab Sample IDs: 2090285

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A91796

Included Lab Sample IDs: 2090284, 2090287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.5	97.7	P/P	90 - 110
O-Phosphate-P	99.5	96.7	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A91818

Included Lab Sample IDs: 2090282, 2090285

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

Reference Method: SM 4500 F-C-97

Run ID: A91818

Included Lab Sample IDs: 2090282, 2090285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A91831

Included Lab Sample IDs: 2090299, 2090300, 2090301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.8	99.4	P/P	50 - 150
3-Hydroxycarbofuran	107	97.6	P/P	60 - 150
Acetaminophen	106	107	P/P	60 - 160
Aldicarb	112	75.3	P/P	60 - 150
Aldicarb Sulfone	95.1	91.0	P/P	50 - 150
Aldicarb Sulfoxide	100	102	P/P	50 - 150
Bentazon	119	117	P/P	50 - 160
Carbamazepine	96.8	99.1	P/P	60 - 150
Carbaryl	104	96.5	P/P	60 - 150
Carbofuran	102	99.5	P/P	50 - 150
Diuron	103	104	P/P	60 - 150
Fenuron	104	104	P/P	60 - 150
Fluridone	101	98.2	P/P	60 - 160
Hydrocodone	107	114	P/P	60 - 150
Ibuprofen	84.5	102	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A91831

Included Lab Sample IDs: 2090299, 2090300, 2090301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	84.6	92.3	P/P	50 - 150
Imidacloprid	103	102	P/P	60 - 150
Linuron	102	104	P/P	60 - 150
MCPP	96.6	111	P/P	50 - 150
Methiocarb	103	97.2	P/P	50 - 150
Methomyl	96.6	104	P/P	50 - 150
Naproxen	82.7	108	P/P	50 - 160
Oxamyl	88.8	94.8	P/P	50 - 150
Primidone	100	101	P/P	60 - 150
Propoxur	103	109	P/P	50 - 150
Pyraclostrobin	96.1	96.0	P/P	60 - 150
Triclopyr	110	97.4	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A91835

Included Lab Sample IDs: 2090283, 2090286

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

Reference Method: EPA 8321B

Run ID: A91840

Included Lab Sample IDs: 2090299, 2090300, 2090301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	65.1	76.0	P/P	60 - 160
Acesulfame K	92.3	65.1	P/P	60 - 160
Endothall	112	108	P/P	60 - 160
Endothall	98.6	112	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A91842

Included Lab Sample IDs: 2090299, 2090300, 2090301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	76.0	88.3	P/P	60 - 160
Glufosinate	81.1	87.2	P/P	60 - 160
Glyphosate	79.2	80.5	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A91846

Included Lab Sample IDs: 2090283, 2090286

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91854

Included Lab Sample IDs: 2090285

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

Reference Method: EPA 300.0

Run ID: A91896

Included Lab Sample IDs: 2090282

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

Reference Method: EPA 8270E

Run ID: A91903

Included Lab Sample IDs: 2090304

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.3		P	80 - 120
Alpha-BHC	94.7		P	80 - 120
Alpha-Chlordane	92.5		P	80 - 120
Beta-BHC	88.6		P	80 - 120
Bifenthrin	93.4		P	80 - 120
Carbophenothion	88.0		P	80 - 120
Chlorothalonil	87.4		P	80 - 120
Cis-Nonachlor	91.2		P	80 - 120
Cypermethrin	87.3		P	80 - 120
DDD-p,p'	93.1		P	80 - 120
DDE-p,p'	94.8		P	80 - 120
DDT-p,p'	99.6		P	80 - 120
Delta-BHC	92.0		P	80 - 120
Dicofol	99.4		P	80 - 120
Dieldrin	93.0		P	80 - 120
Endosulfan I	92.5		P	80 - 120
Endosulfan II	89.6		P	80 - 120
Endosulfan Sulfate	92.3		P	80 - 120
Endrin	93.4		P	80 - 120
Endrin Aldehyde	86.3		P	80 - 120
Endrin Ketone	92.8		P	80 - 120
Ethalfuralin	93.8		P	80 - 120
Gamma-BHC	96.6		P	80 - 120
Gamma-Chlordane	92.3		P	80 - 120
Heptachlor	92.4		P	80 - 120
Heptachlor Epoxide	92.9		P	80 - 120
Hexachlorobenzene	94.6		P	80 - 120
Methoxychlor	99.7		P	80 - 120
Mirex	97.1		P	80 - 120
Permethrin	89.7		P	80 - 120
Trans-Nonachlor	91.4		P	80 - 120
Trifluralin	95.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A91914

Included Lab Sample IDs: 2090283, 2090286

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A91916

Included Lab Sample IDs: 2090311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Manganese	99.2	101	P/P	90 - 110
Zinc	101	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91918

Included Lab Sample IDs: 2090283, 2090286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A91923

Included Lab Sample IDs: 2090283, 2090286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.6	95.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A91924

Included Lab Sample IDs: 2090311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.5	95.6	P/P	90 - 110
Antimony	96.9	97.2	P/P	90 - 110
Arsenic	99.9	97.5	P/P	90 - 110
Cadmium	99.4	100	P/P	90 - 110
Chromium	105	105	P/P	90 - 110
Copper	100	99.0	P/P	90 - 110
Nickel	101	99.6	P/P	90 - 110
Silver	97.8	97.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A91992

Included Lab Sample IDs: 2090304

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	91.2		P	80 - 120
Toxaphene	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92024

Included Lab Sample IDs: 2090311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	94.6	94.4	P/P	90 - 110
Selenium	102	100	P/P	90 - 110
Thallium	97.4	96.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92064

Included Lab Sample IDs: 2090299, 2090300, 2090301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	116	95.9	P/P	60 - 160

Reference Method: EPA 300.0

Run ID: A92088

Included Lab Sample IDs: 2090285

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92095

Included Lab Sample IDs: 2090311

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

Reference Method: EPA 8270E

Run ID: A92257

Included Lab Sample IDs: 2090305

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine Desethyl	97.5		P	80 - 120
Azinphos Methyl	98.5		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.6		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	93.7		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	95.9		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	99.1		P	80 - 120
Ethion	88.8		P	80 - 120
Ethoprop	99.1		P	80 - 120
Fenamiphos	97.0		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A92257
Included Lab Sample IDs: 2090305

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil Sulfide	118		P	80 - 120
Fipronil Sulfone	97.6		P	80 - 120
Fonofos	99.1		P	80 - 120
Hexazinone	97.2		P	80 - 120
Malathion	99.0		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	99.3		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	98.9		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	107		P	80 - 120
Parathion Ethyl	95.5		P	80 - 120
Parathion Methyl	98.4		P	80 - 120
Pendimethalin	95.3		P	80 - 120
Phorate	96.2		P	80 - 120
Prodiamine	90.2		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	105		P	80 - 120
Simazine	97.7		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	95.2		P	80 - 120
Terbutylazine	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A92270
Included Lab Sample IDs: 2090305

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	93.4		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision	
				LCS			SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						2.01	
EPA 200.7 Rev. 4.4	Iron	103		104	104	103		0.405
	Manganese	99.3		101	100	101		0.641
	Zinc	98.8		102	101	101		0.226
EPA 200.8 Rev. 5.4	Aluminum	93.4		93.1	93.1	92.6		0.508
	Antimony	97.6		98.1	98.6	98.7		0.101
	Arsenic	101		102	97.2	98.3		1.03
	Cadmium	97.4		99.8	100	99.9		0.100
	Chromium	103		102	99.7	100		0.554
	Copper	99.7		94.8	94.8	95.4		0.605
	Lead	90.3		91.6	90.3	90.3		0.0834
	Nickel	101		98.6	96.8	96.6		0.211
	Selenium	107		105	103	103		0.300
	Silver	97.6		96.1	97.1	96.8		0.313
	Thallium	95.6		98.1	97.9	98.8		0.862
EPA 300.0	Bromide	102		96.2	96.7	96.2		0.456
	Bromide	100		95.0	96.3	94.5		0.424
EPA 300.0 Rev. 2.1	Chloride	98.2		96.6	99.2		0.869	
	Sulfate	98.6		95.6	99.5		0.971	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4		105	103			1.61
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.0		87.2	89.6			2.57
EPA 353.2 Rev. 2.0	NO2NO3-N	97.5		99.4	98.4			0.966
EPA 365.1 Rev. 2.0	Total-P	99.6		95.2	93.2			1.88
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4		93.2	94.9			1.81
EPA 8270E	Acetochlor	96.9	85.4	97.4	108	12.6		10.1
	Alachlor	94.1	86.7	100	108	8.20		7.11
	Aldrin	31.4	31.8	45.6	40.6	1.41		11.6
	Alpha-BHC	81.8	99.1	106	113	19.1		6.39
	Alpha-Chlordane	60.8	63.4	71.8	66.3	4.29		8.00
	Ametryn	89.8	92.1	97.9	100	2.50		2.52
	Atrazine	93.3	99.6	100	114	6.48		13.0
	Atrazine Desethyl	53.8	61.9	64.7	66.3	13.8		2.48
	Azinphos Methyl	98.5	98.8	103	116	0.250		12.2
	Beta-BHC	107	99.4	130	133	7.72		2.94
	Bifenthrin	59.5	57.4	69.2	55.4	3.61		22.2
	Bromacil	71.0	72.5	95.2	106	2.10		9.45
	Butylate	56.7	29.7	51.4	51.9	62.7		0.918
	Carbophenothion	70.3	70.0	98.6	94.6	0.470		4.12
	Chlorothalonil	87.3	85.6	14.9	30.4	2.00		68.4
	Chlorpyrifos Ethyl	92.7	86.1	97.4	102	7.39		4.72
	Chlorpyrifos Methyl	82.7	70.2	85.0	90.6	16.4		6.35
	Cis-Nonachlor	63.3	63.8	71.2	63.2	0.654		11.9
	Cyanazine	69.3	81.9	95.5	93.4	16.7		2.18
	Cypermethrin	54.1	49.3	63.6	53.6	9.43		17.0
	DDD-p,p'	73.7	74.3	86.7	80.9	0.867		6.88
	DDE-p,p'	57.4	60.8	68.4	63.1	5.82		8.10
	DDT-p,p'	79.5	81.2	96.0	83.7	2.18		13.6
	Delta-BHC	98.2	102	163	149	3.43		8.98
	Demeton	63.9	40.0	61.4	64.5	45.9		4.84
	Diazinon	89.1	74.8	94.3	97.2	17.5		2.97
	Dicofol	86.3	79.6	94.1	96.1	8.14		2.09
	Dieldrin	65.0	68.9	85.0	74.7	5.92		12.9
	Dimethenamid	96.2	85.7	99.7	108	11.6		7.83
	Disulfoton	67.1	52.9	65.7	69.5	23.6		5.57

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						SMP	MS
EPA 8270E	Dithiopyr	97.0	92.5	101	109	4.66	7.69
	Endosulfan I	67.4	70.1	83.9	79.6	3.92	5.22
	Endosulfan II	77.2	78.8	88.0	85.4	2.07	2.99
	Endosulfan Sulfate	80.6	74.7	96.9	98.8	7.63	1.93
	Endrin	71.4	75.0	88.1	83.6	4.90	5.33
	Endrin Aldehyde	76.6	73.5	65.5	67.8	4.11	3.39
	Endrin Ketone	74.7	72.7	91.2	91.1	2.72	0.133
	EPTC	57.5	30.5	51.6	54.7	61.3	5.95
	Ethalfuralin	75.6	77.5	95.6	88.5	2.42	7.74
	Ethion	93.0	98.1	103	112	5.34	8.18
	Ethoprop	84.9	55.0	81.7	85.2	42.8	4.23
	Fenamiphos	57.3	51.1	86.0	83.9	11.3	2.47
	Fipronil	97.7	61.7	107	117	45.2	9.64
	Fipronil Desulfinyl	92.3	86.8	91.5	103	6.09	12.0
	Fipronil Sulfide	97.7	88.6	98.9	110	9.76	10.6
	Fipronil Sulfone	92.1	84.3	98.9	109	8.77	10.0
	Fonofos	75.5	56.9	83.0	81.8	28.0	1.46
	Gamma-BHC	102	111	127	133	8.96	4.43
	Gamma-Chlordane	59.1	60.4	69.3	62.2	2.17	10.7
	Heptachlor	51.3	53.9	60.2	57.1	5.06	5.25
	Heptachlor Epoxide	66.4	69.2	80.8	76.5	4.21	5.46
	Hexachlorobenzene	56.2	57.8	65.0	63.5	2.67	2.41
	Hexazinone	57.0	52.6			8.07	1.91
	Malathion	93.9	95.3	97.0	106	1.41	8.88
	Metalaxyl	12.2	5.96	51.9	23.2	69.0	76.4
	Methoxychlor	87.6	92.9	105	98.6	5.88	5.93
	Metolachlor	99.4	92.6	101	111	7.09	9.01
	Metribuzin	79.0	71.4	104	98.9	10.1	4.65
	Mevinphos	65.6	36.2	74.8	67.3	57.7	10.5
	Mirex	45.1	45.6	54.8	46.3	0.971	16.8
	Molinate	64.3	34.3	58.8	61.6	60.8	4.56
	Norflurazon	95.4	104	96.6	114	8.13	16.3
	Oxadiazon	105	102	99.5	112	2.41	11.8
	Parathion Ethyl	87.4	76.9	89.3	98.3	12.9	9.61
	Parathion Methyl	91.0	72.5	92.4	101	22.6	8.48
	Pendimethalin	93.2	78.6	103	109	17.0	5.48
	Permethrin	54.9	53.3	63.6	52.0	2.93	20.1
	Phorate	66.3	44.0	70.0	71.8	40.3	2.54
	Prodiamine	108	92.2	135	150	16.2	10.3
	Prometon	83.6	87.0	103	109	4.01	5.52
	Prometryn	94.1	96.4	98.0	109	2.47	10.5
	Simazine	93.8	94.4	95.9	100	0.663	4.26
	Tebuconazole	75.9	80.5	94.3	100	5.78	5.97
	Terbufos	76.5	58.1	82.0	83.9	27.3	2.36
	Terbuthylazine	94.3	95.8	100	109	1.60	8.53
	Trans-Nonachlor	56.1	57.5	65.7	59.0	2.47	10.7
	Trifluralin	69.2	71.2	86.4	79.6	2.92	8.26
EPA 8276	Chlordane	60.7	70.5	67.8	64.8	15.0	4.63
	Toxaphene	52.5	59.4	46.2	51.8	12.4	11.4
EPA 8321B	2,4-D	95.3		124	109		12.2
	3-Hydroxycarbofuran	78.7		90.9	82.6		9.62
	Acesulfame K	86.9		89.0	87.8		1.17
	Acetaminophen	83.6		83.8	87.9		4.72
	Aldicarb	84.7		68.5	66.0		3.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Aldicarb Sulfone	92.4	99.1	103		4.22
	Aldicarb Sulfoxide	87.3	40.2	39.8		1.22
	AMPA	99.1	60.0	69.1		9.09
	Bentazon	129	102	87.8		7.76
	Carbamazepine	94.6	76.6	85.9		10.7
	Carbaryl	83.9	69.8	68.1		2.54
	Carbofuran	68.7	61.5	64.8		5.22
	Diuron	93.2	77.8	79.3		1.73
	Endothall	88.1	93.0	93.3		0.382
	Fenuron	106	99.4	86.2		14.3
	Fluridone	91.5	92.8	91.3		0.803
	Glufosinate	76.2	68.7	77.6		12.2
	Glyphosate	74.1	80.8	84.6		3.68
	Hydrocodone	100	94.6	98.2		3.78
	Ibuprofen	81.8	72.6	71.2		2.01
	Imazapyr	95.7				35.2
	Imidacloprid	102	131	163		18.9
	Linuron	77.6	72.5	67.3		7.48
	MCPP	114	167	146		13.5
	Methiocarb	72.5	63.2	62.9		0.515
	Methomyl	81.3	83.4	71.3		15.6
	Naproxen	89.0	125	95.6		26.8
	Oxamyl	97.3	88.5	83.5		5.85
	Primidone	92.0	101	97.1		4.11
	Propoxur	80.9	68.5	67.5		1.49
	Pyraclostrobin	70.7	86.4	80.7		6.91
	Sucralose	93.7	138	139		0.783
	Triclopyr	72.9	113	91.6		21.2
SM 2120 B	Color (true)	99.7			3.15	
SM 2320 B-97	Total Alkalinity	103			1.42	
SM 2540 C-97	TDS				1.01	
SM 4500 F-C-97	Fluoride	97.7				0.473
SM 5310 B-00	Organic Carbon	100	100	102		1.02
	Organic Carbon	105	101	102		0.748

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2090282, 2090285
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2090311
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2090311
EPA 300.0 / E31780	Bromide in aqueous matrices	2090282, 2090285
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2090285
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2090285
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2090283, 2090286
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2090283, 2090286
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2090283, 2090286

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2090283, 2090286
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2090284, 2090287
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2090304
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2090305
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2090304
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2090298
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2090299, 2090300, 2090301
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2090299, 2090300, 2090301
SM 2120 B / E31780	True Color measured at 450 nm	2090285
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2090282, 2090285
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2090285
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2090282, 2090285
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2090282, 2090285
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2090283, 2090286

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	05/31/2019			05/31/2019 16:22	Julia Storbeck	2090282, 2090285
EPA 200.7 Rev. 4.4	05/31/2019	06/04/2019 17:15	Elliott D. Healy	06/06/2019 13:29	Betina Topolski	2090311
	05/31/2019	06/11/2019 16:10	Elliott D. Healy	06/12/2019 22:10	Betina Topolski	2090311
EPA 200.8 Rev. 5.4	05/31/2019	06/04/2019 17:15	Elliott D. Healy	06/07/2019 03:31	Robert K Palmer	2090311
	05/31/2019	06/04/2019 17:15	Elliott D. Healy	06/11/2019 17:48	Robert K Palmer	2090311
EPA 300.0	05/31/2019			06/06/2019 01:03	Lipi Saha	2090282
	05/31/2019			06/14/2019 13:24	Lipi Saha	2090285
EPA 300.0 Rev. 2.1	05/31/2019			06/05/2019 17:04	Lipi Saha	2090285
EPA 350.1 Rev. 2.0	05/31/2019			06/05/2019 13:31	Ping Hua	2090286
	05/31/2019			06/05/2019 14:51	Ping Hua	2090283
EPA 351.2 Rev. 2.0	05/31/2019	06/05/2019 16:30	Adrian Shelby	06/06/2019 14:46	Joseph Suarez	2090283
	05/31/2019	06/05/2019 16:30	Adrian Shelby	06/06/2019 14:48	Joseph Suarez	2090286
EPA 353.2 Rev. 2.0	05/31/2019			06/04/2019 14:48	Beverly Y. Sanders	2090283
	05/31/2019			06/04/2019 14:54	Beverly Y. Sanders	2090286
EPA 365.1 Rev. 2.0	05/31/2019	06/05/2019 12:10	Sima Feizi	06/06/2019 14:39	Rosalyn Ballman	2090283
	05/31/2019	06/05/2019 12:10	Sima Feizi	06/06/2019 14:40	Rosalyn Ballman	2090286
EPA 365.1 Rev. 2.0 dissolved	05/31/2019			05/31/2019 15:29	Jhamieka S. Greenwood	2090284
	05/31/2019			05/31/2019 15:55	Jhamieka S. Greenwood	2090287
EPA 8270E	05/31/2019	06/03/2019 09:00	Fe-Val Siddell	06/06/2019 05:43	Arthur Maknenko	2090304
	05/31/2019	06/05/2019 09:00	Fe-Val Siddell	06/10/2019 21:33	Vandana T. Nagar	2090305
	05/31/2019	06/05/2019 09:00	Fe-Val Siddell	06/13/2019 19:00	Vandana T. Nagar	2090305
EPA 8276	05/31/2019	06/03/2019 09:00	Fe-Val Siddell	06/09/2019 08:39	Dinesh Mishra	2090304
EPA 8321B	05/31/2019	06/03/2019 09:00	Hoor Shaik	06/04/2019 05:31	Juyoung Kim	2090298
	05/31/2019	06/03/2019 09:00	Hoor Shaik	06/04/2019 10:42	Juyoung Kim	2090299
	05/31/2019	06/03/2019 09:00	Hoor Shaik	06/04/2019 11:17	Juyoung Kim	2090300
	05/31/2019	06/03/2019 09:00	Hoor Shaik	06/04/2019 11:51	Juyoung Kim	2090301
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/03/2019 15:22	Rebecca Ware	2090299
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/03/2019 15:36	Rebecca Ware	2090300
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/03/2019 16:04	Rebecca Ware	2090301
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/04/2019 11:23	Rebecca Ware	2090299
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/04/2019 11:34	Rebecca Ware	2090300
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/04/2019 11:45	Rebecca Ware	2090301
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/11/2019 20:50	Rebecca Ware	2090299
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/11/2019 21:02	Rebecca Ware	2090300
	05/31/2019	06/03/2019 10:00	Rebecca Ware	06/11/2019 21:13	Rebecca Ware	2090301
SM 2120 B	05/31/2019			05/31/2019 16:02	Madeline Funaro	2090285
SM 2320 B-97	05/31/2019			06/03/2019 09:57	Dale L. Simmons	2090282
	05/31/2019			06/03/2019 10:08	Dale L. Simmons	2090285
SM 2540 C-97	05/31/2019			06/03/2019 15:26	Mariam Hanna	2090285
SM 2540 D-97	05/31/2019			06/03/2019 15:47	Mariam Hanna	2090282

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	05/31/2019			06/04/2019 13:10	Mariam Hanna	2090285
SM 4500 F-C-97	05/31/2019			06/03/2019 06:15	Dale L. Simmons	2090282
	05/31/2019			06/03/2019 06:32	Dale L. Simmons	2090285
SM 5310 B-00	05/31/2019			06/03/2019 22:14	Madeline Funaro	2090283
	05/31/2019			06/04/2019 07:54	Madeline Funaro	2090286