

Chemical Analysis Report

SO-DIST-2019-01-29-02

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

Event Description: **SMP: Flint Creek**
Request ID: **RQ-2019-01-28-36**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637
Attn: Ben Paswater

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Certified by: Colin Wright, Program Administrator

Date Certified: 20-FEB-2019 12:34

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: BAKER CREEK @ THONOTOSASSA RD

Collection Date/Time: 01/28/2019 10:45

Field ID: G2SW0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057751	EPA 180.1 Rev. 2.0	Turbidity	7.7	A	NTU	P357997	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P358372	
		Sulfate	4.5		mg SO4/L	P358373	
	SM 2120 B	Color (true)	69	A	PCU	P358003	
	SM 2320 B-97	Total Alkalinity	49		mg CaCO3/L	P358553	
	SM 2540 C-97	TDS	116	A	mg/L	P358345	
	SM 2540 D-97	TSS	8	IA	mg/L	P358334	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P358556	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P358205	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P358182	
2057752	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P358042	
	EPA 365.1 Rev. 2.0	Total-P	0.36		mg P/L	P358158	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P358265	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.18		mg P/L	P358011	
	dissolved						
2057767	EPA 8321B	Aldicarb	0.020	U	ug/L	P357829	
		Aldicarb Sulfone	0.0020	U	ug/L	P357829	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P357829	
		Carbaryl	0.0020	U	ug/L	P357829	
		Carbofuran	0.0020	U	ug/L	P357829	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P357829	
		Methiocarb	0.0020	U	ug/L	P357829	
		Methomyl	0.0020	U	ug/L	P357829	
		Oxamyl	0.0020	U	ug/L	P357829	
		Propoxur	0.0020	U	ug/L	P357829	
2057768		2,4-D	0.0046	I	ug/L	P357829	
		Sucralose**	0.20		ug/L	P358749	
		Bentazon	0.0019	I	ug/L	P357829	
		MCP	0.0020	U	ug/L	P357829	
		Triclopyr**	0.0040	U	ug/L	P357829	
		Imidacloprid	0.0077	I	ug/L	P357829	
		Diuron	0.0031	I	ug/L	P357829	
		Pyraclostrobin**	0.0020	U	ug/L	P357829	
		Primidone**	0.0040	U	ug/L	P357829	
		Linuron	0.0040	U	ug/L	P357829	
		Acetaminophen**	0.0080	U	ug/L	P357829	
		Fenuron	0.016	U	ug/L	P357829	
		Imazapyr**	0.033		ug/L	P357829	
		Carbamazepine**	8.0E-04	U	ug/L	P357829	
		Fluridone**	0.0013	I	ug/L	P357829	
		Hydrocodone**	0.0020	U	ug/L	P357829	
		Naproxen**	0.0080	U	ug/L	P357829	
		Ibuprofen**	0.020	U	ug/L	P357829	
		Glyphosate**	0.061	U	ug/L	P358146	MS

Field ID: G2SW0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057768	EPA 8321B	AMPA**	0.18	I	ug/L	P358146	
		Endothall**	0.25	U	ug/L	P358146	
		Glufosinate**	0.10	U	ug/L	P358146	RPD
		Acesulfame K**	0.10	U	ug/L	P358146	
2057772	EPA 8270D	Aldrin	4.1	U	ng/L	P358259	
		Alpha-BHC	2.1	U	ng/L	P358259	
		Beta-BHC	10	U	ng/L	P358259	
		Delta-BHC	10	U	ng/L	P358259	
		Gamma-BHC	10	U	ng/L	P358259	
		Carbophenothion	12	U	ng/L	P358259	
		Chlorothalonil	2.1	U	ng/L	P358259	MS
		Cypermethrin	21	U	ng/L	P358259	
		DDD-p,p'	8.3	U	ng/L	P358259	
		DDE-p,p'	8.3	U	ng/L	P358259	
		DDT-p,p'	10	U	ng/L	P358259	
		Dieldrin	4.1	U	ng/L	P358259	
		Endosulfan I	4.1	U	ng/L	P358259	
		Endosulfan II	4.1	U	ng/L	P358259	
		Endosulfan Sulfate	2.1	U	ng/L	P358259	
		Endrin	2.1	U	ng/L	P358259	
		Endrin Aldehyde	2.1	U	ng/L	P358259	
		Heptachlor	1.6	U	ng/L	P358259	
		Heptachlor Epoxide	2.1	U	ng/L	P358259	
		Methoxychlor	4.1	U	ng/L	P358259	
		Mirex	2.1	UJ	ng/L	P358259	LCS
		Permethrin	10	U	ng/L	P358259	
		Trifluralin	2.6	U	ng/L	P358259	
		Alpha-Chlordane	1.0	U	ng/L	P358259	
		Gamma-Chlordane	1.0	U	ng/L	P358259	
		Endrin Ketone	2.1	U	ng/L	P358259	
		Dicofol	31	U	ng/L	P358259	
		Chlordane	5.2	U	ng/L	P358259	
		Toxaphene	31	U	ng/L	P358259	
2057773	EPA 8270D	Acetochlor	0.24	U	ng/L	P358144	
		Alachlor	0.24	U	ng/L	P358144	
		Ametryn	0.58	U	ng/L	P358144	
		Atrazine	8.6		ng/L	P358144	
		Atrazine Desethyl	1.4	UJ	ng/L	P358144	RPD
		Azinphos Methyl	2.2	U	ng/L	P358144	
		Bromacil	0.48	U	ng/L	P358144	
		Butylate	0.39	U	ng/L	P358144	
		Chlorpyrifos Ethyl	0.24	UJ	ng/L	P358144	MS
		Chlorpyrifos Methyl	0.096	U	ng/L	P358144	
		Cyanazine	3.1	U	ng/L	P358144	
		Demeton	6.8	U	ng/L	P358144	
	EPA 8276						

Field ID: G2SW0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057773	EPA 8270D	Diazinon	0.12	U	ng/L	P358144	
		Dimethenamid**	0.096	U	ng/L	P358144	
		Disulfoton	0.48	U	ng/L	P358144	
		Dithiopyr**	0.096	U	ng/L	P358144	
		EPTC	1.2	U	ng/L	P358144	
		Ethion	0.14	UJ	ng/L	P358144	RPD
		Ethoprop	0.096	U	ng/L	P358144	
		Fenamiphos	0.48	UJ	ng/L	P358144	RPD
		Fipronil	0.24	U	ng/L	P358144	
		Fipronil Desulfinyl**	0.20	I	ng/L	P358144	
		Fipronil Sulfide	0.14	U	ng/L	P358144	
		Fipronil Sulfone	0.17	I	ng/L	P358144	
		Fonofos	0.19	U	ng/L	P358144	
		Hexazinone	9.1		ng/L	P358144	
		Malathion	0.34	UJ	ng/L	P358144	MS, RPD
		Metalaxyl	7.1		ng/L	P358144	
		Metolachlor	1.2	I	ng/L	P358144	
		Metribuzin	0.72	UJ	ng/L	P358144	CCV
		Mevinphos	0.48	U	ng/L	P358144	
		Molinate	0.29	U	ng/L	P358144	
		Norflurazon	0.48	U	ng/L	P358144	
		Oxadiazon**	0.67		ng/L	P358144	
		Parathion Ethyl	0.24	U	ng/L	P358144	
		Parathion Methyl	0.53	U	ng/L	P358144	
		Pendimethalin	0.96	U	ng/L	P358144	
		Phorate	0.24	U	ng/L	P358144	
		Prodiamine**	0.17	U	ng/L	P358144	
		Prometon	0.87	U	ng/L	P358144	
		Prometryn	0.19	U	ng/L	P358144	
		Simazine	1.2	I	ng/L	P358144	
		Tebuconazole**	6.3	J	ng/L	P358144	LCS, RPD
		Terbufos	0.096	U	ng/L	P358144	
		Terbutylazine	0.41	U	ng/L	P358144	
2057774	EPA 200.7 Rev. 4.4	Barium	6.5		ug/L	P358142	
		Calcium	19.2		mg/L	P358142	
		Iron	180		ug/L	P358142	
		Magnesium	3.95		mg/L	P358142	
		Potassium	3.9		mg/L	P358142	
		Sodium	10.4		mg/L	P358142	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P358142	
		Aluminum	207		ug/L	P358142	
		Antimony	0.15	I	ug/L	P358142	
		Arsenic	3.93		ug/L	P358142	
		Boron**	32.3		ug/L	P358142	
		Cadmium	0.020	U	ug/L	P358142	

Field ID: G2SW0012

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057774	EPA 200.8 Rev. 5.4	Chromium	1.1	I	ug/L	P358142	
		Copper	2.22		ug/L	P358142	
		Lead	0.53		ug/L	P358142	
		Nickel	0.52	I	ug/L	P358142	
		Selenium	0.20	U	ug/L	P358142	
		Silver	0.010	U	ug/L	P358142	
		Thallium	0.10	U	ug/L	P358142	

Ref. Method and Comment:
 SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
 EPA 8270D: Refer to the narrative for an explanation of QC Codes.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, potassium and sodium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.
 EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: NEW RIVER @ MORRIS BRIDGE RD

Collection Date/Time: 01/28/2019 09:10

Field ID: G2SW0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057754	EPA 180.1 Rev. 2.0	Turbidity	18		NTU	P357997	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P358372	
		Sulfate	5.7		mg SO4/L	P358373	
		Color (true)	200		PCU	P358004	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P358553	
	SM 2540 C-97	TDS	128		mg/L	P358345	
	SM 2540 D-97	TSS	8	I	mg/L	P358334	
	SM 4500 F-C-97	Fluoride	0.092	I	mg F/L	P358556	
2057755	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P358205	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P358182	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.043		mg N/L	P358042	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P358158	
	SM 5310 B-00	Organic Carbon	25		mg C/L	P358265	
2057756	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.096		mg P/L	P358011	

Ref. Method and Comment:

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

Sample Location: NEW RIVER @ MORRIS BRIDGE RD

Collection Date/Time: 01/28/2019 09:10

Field ID: G2SW0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057769	EPA 8321B	2,4-D	0.031		ug/L	P357829	
		Sucralose**	0.65		ug/L	P358146	
		Bentazon	0.015		ug/L	P357829	
		MCP	0.0020	U	ug/L	P357829	
		Triclopyr**	0.0040	U	ug/L	P357829	
		Imidacloprid	0.011		ug/L	P357829	
		Diuron	0.0020	U	ug/L	P357829	
		Pyraclostrobin**	0.0020	U	ug/L	P357829	
		Primidone**	0.0044	I	ug/L	P357829	
		Linuron	0.0040	U	ug/L	P357829	
		Acetaminophen**	0.0080	U	ug/L	P357829	
		Fenuron	0.016	U	ug/L	P357829	
		Imazapyr**	0.24		ug/L	P357829	
		Carbamazepine**	8.0E-04	U	ug/L	P357829	
		Fluridone**	0.0084		ug/L	P357829	
		Hydrocodone**	0.0020	U	ug/L	P357829	
		Naproxen**	0.0080	U	ug/L	P357829	
		Ibuprofen**	0.020	U	ug/L	P357829	
		Glyphosate**	0.079	U	ug/L	P358146	MS
		AMPA**	0.14	I	ug/L	P358146	
		Endothall**	0.25	U	ug/L	P358146	
		Glufosinate**	0.10	U	ug/L	P358146	RPD
		Acesulfame K**	0.10	U	ug/L	P358146	

Sample Location: BAKER CREEK EAST @ PEMBERTON DR

Collection Date/Time: 01/28/2019 11:25

Field ID: G2SW0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057770	EPA 8321B	2,4-D	0.047		ug/L	P358017	MS
		Sucralose**	0.22		ug/L	P358749	
		Bentazon	0.017		ug/L	P358017	
		MCP	0.0028	I	ug/L	P358017	MS
		Triclopyr**	0.0040	U	ug/L	P358017	
		Imidacloprid	0.012		ug/L	P358017	
		Diuron	0.0058	I	ug/L	P358017	MS
		Pyraclostrobin**	0.0020	U	ug/L	P358017	
		Primidone**	0.0040	U	ug/L	P358017	
		Linuron	0.0040	U	ug/L	P358017	MS
		Acetaminophen**	0.0080	U	ug/L	P358017	
		Fenuron	0.016	UJ	ug/L	P358017	LCS
		Imazapyr**	0.053		ug/L	P358017	
		Carbamazepine**	8.0E-04	U	ug/L	P358017	
		Fluridone**	0.0016	I	ug/L	P358017	
		Hydrocodone**	0.0020	U	ug/L	P358017	
		Naproxen**	0.0080	U	ug/L	P358017	
		Ibuprofen**	0.020	U	ug/L	P358017	
		Glyphosate**	1.2		ug/L	P358146	MS
		AMPA**	1.2		ug/L	P358146	
		Endothall**	0.25	U	ug/L	P358146	
		Glufosinate**	0.10	U	ug/L	P358146	RPD
		Acesulfame K**	0.10	U	ug/L	P358146	

Ref. Method and Comment:

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

Sample Location: BAKER CREEK EAST @ McINTOSH RD

Collection Date/Time: 01/28/2019 11:10

Field ID: G2SW0081

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2057771	EPA 8321B	2,4-D	0.042	J	ug/L	P358017	MS
		Sucralose**	0.23		ug/L	P358749	
		Bentazon	0.019		ug/L	P358017	
		MCP	0.0025	IJ	ug/L	P358017	MS
		Triclopyr**	0.0040	U	ug/L	P358017	
		Imidacloprid	0.011		ug/L	P358017	
		Diuron	0.0071	IJ	ug/L	P358017	MS
		Pyraclostrobin**	0.0020	U	ug/L	P358017	
		Primidone**	0.0040	U	ug/L	P358017	
		Linuron	0.0040	UJ	ug/L	P358017	MS
		Acetaminophen**	0.0080	U	ug/L	P358017	
		Fenuron	0.016	UJ	ug/L	P358017	LCS
		Imazapyr**	0.069		ug/L	P358017	
		Carbamazepine**	8.0E-04	U	ug/L	P358017	
		Fluridone**	0.0012	I	ug/L	P358017	
		Hydrocodone**	0.0020	U	ug/L	P358017	
		Naproxen**	0.0080	U	ug/L	P358017	
		Ibuprofen**	0.020	U	ug/L	P358017	
		Glyphosate**	1.2		ug/L	P358146	MS
		AMPA**	1.4		ug/L	P358146	
		Endothall**	0.25	U	ug/L	P358146	
		Glufosinate**	0.10	U	ug/L	P358146	RPD
		Acesulfame K**	0.10	U	ug/L	P358146	

Ref. Method and Comment:

EPA 8321B: 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: P357997

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P358142

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: P358142

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: P358372

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358205

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: P358182

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358042

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358158

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358011

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

Reference Method: EPA 8270D
Batch ID: P358144

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	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	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	0.25	U	ng/L

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Method Blank Results

Reference Method: EPA 8270D
Batch ID: P358144

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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P358259

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
Carbophenothion	12	U	ng/L
Chlorothalonil	2.0	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
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
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	2.5	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276
Batch ID: P358259

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

Reference Method: EPA 8321B
Batch ID: P357829

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
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P358017

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P358017

Component	Result	Code	Units
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: P358146

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	0.028	I	ug/L

Reference Method: EPA 8321B
Batch ID: P358749

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P358003

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P358004

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P358553

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

Reference Method: SM 2540 C-97
Batch ID: P358345

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P358334

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P358556

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P358265

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: P358142

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	104		P	85 - 115
Iron	105		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	103		P	85 - 115
Sodium	101		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358142

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	105		P	85 - 115
Boron	104		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	98.5		P	85 - 115
Copper	103		P	85 - 115
Lead	106		P	85 - 115
Nickel	103		P	85 - 115
Selenium	99.7		P	85 - 115
Silver	102		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358372

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358205

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358182

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P358042

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P358158

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P358011

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

Reference Method: EPA 8270D
 Batch ID: P358144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.1	93.2	P/P	71 - 121
Alachlor	105	96.5	P/P	72 - 119
Ametryn	96.0	102	P/P	47 - 144
Atrazine	95.3	93.5	P/P	75 - 123
Atrazine Desethyl	76.7	81.7	P/P	45 - 133
Azinphos Methyl	108	111	P/P	66 - 165
Bromacil	74.2	81.1	P/P	43 - 123
Butylate	77.0	67.3	P/P	27 - 83.0
Chlorpyrifos Ethyl	101	90.3	P/P	70 - 117
Chlorpyrifos Methyl	92.4	84.1	P/P	71 - 120
Cyanazine	80.3	84.4	P/P	34 - 264
Demeton	70.5	71.4	P/P	41 - 122
Diazinon	98.3	89.6	P/P	70 - 127
Dimethenamid	104	95.6	P/P	60 - 130
Disulfoton	78.0	82.1	P/P	56 - 127
Dithiopyr	96.9	89.8	P/P	60 - 130
EPTC	73.7	70.3	P/P	24 - 84.0
Ethion	107	106	P/P	53 - 132
Ethoprop	98.8	82.8	P/P	57 - 117
Fenamiphos	57.4	86.1	P/P	55 - 136
Fipronil	96.1	101	P/P	64 - 126
Fipronil Desulfinyl	98.2	94.9	P/P	60 - 130
Fipronil Sulfide	99.7	100	P/P	57 - 120
Fipronil Sulfone	99.9	99.0	P/P	52 - 115
Fonofos	80.8	76.4	P/P	61 - 121
Hexazinone	122	93.2	P/P	62 - 131
Malathion	99.8	99.8	P/P	67 - 126
Metalaxyl	55.2	59.1	P/P	54 - 128
Metolachlor	104	99.2	P/P	71 - 118
Metribuzin	78.6	76.1	P/P	42 - 221
Mevinphos	87.4	84.4	P/P	45 - 114
Molinate	81.4	75.8	P/P	33 - 91.0
Norflurazon	83.2	104	P/P	60 - 123
Oxadiazon	107	106	P/P	60 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P358144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	84.0	91.0	P/P	73 - 111
Parathion Methyl	96.4	96.0	P/P	74 - 126
Pendimethalin	92.1	89.5	P/P	63 - 131
Phorate	72.9	73.8	P/P	54 - 115
Prodiamine	103	98.1	P/P	60 - 130
Prometon	87.3	93.3	P/P	61 - 120
Prometryn	96.1	98.9	P/P	62 - 126
Simazine	110	101	P/P	75 - 126
Tebuconazole	27.9	90.9	F/P	30 - 100
Terbufos	78.6	76.5	P/P	65 - 116
Terbuthylazine	106	97.2	P/P	73 - 117

Reference Method: EPA 8270D
Batch ID: P358259

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	48.3	60.8	P/P	20 - 93.0
Alpha-BHC	98.1	102	P/P	57 - 119
Alpha-Chlordane	75.9	82.6	P/P	58 - 112
Beta-BHC	128	140	P/P	56 - 149
Carbophenothion	87.8	98.3	P/P	26 - 147
Chlorothalonil	78.6	91.2	P/P	20 - 155
Cypermethrin	66.0	83.9	P/P	40 - 137
DDD-p,p'	92.6	99.1	P/P	65 - 129
DDE-p,p'	75.6	83.2	P/P	57 - 116
DDT-p,p'	88.2	95.4	P/P	53 - 133
Delta-BHC	138	131	P/P	59 - 163
Dicofol	103	102	P/P	24 - 138
Dieldrin	87.4	91.7	P/P	60 - 120
Endosulfan I	88.0	89.8	P/P	64 - 118
Endosulfan II	99.2	101	P/P	58 - 142
Endosulfan Sulfate	82.0	89.9	P/P	60 - 127
Endrin	89.7	91.5	P/P	59 - 122
Endrin Aldehyde	106	112	P/P	49 - 132
Endrin Ketone	82.9	90.8	P/P	64 - 121
Gamma-BHC	113	117	P/P	56 - 141
Gamma-Chlordane	72.8	80.7	P/P	56 - 110
Heptachlor	57.8	66.9	P/P	46 - 96.0
Heptachlor Epoxide	82.1	87.4	P/P	61 - 112
Methoxychlor	101	114	P/P	63 - 134
Mirex	37.5	48.5	F/P	45 - 100
Permethrin	63.0	77.1	P/P	53 - 115
Trifluralin	78.8	84.7	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P358259

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.4	76.7	P/P	43 - 128
Toxaphene	51.8	57.0	P/P	38 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P357829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	64.0		P	40 - 150
3-Hydroxycarbofuran	79.4		P	40 - 150
Acetaminophen	79.8		P	30 - 150
Aldicarb	70.3		P	30 - 150
Aldicarb Sulfone	82.7		P	40 - 150
Aldicarb Sulfoxide	74.9		P	40 - 150
Bentazon	70.4		P	30 - 150
Carbamazepine	78.5		P	40 - 150
Carbaryl	56.9		P	40 - 150
Carbofuran	67.7		P	40 - 150
Diuron	63.3		P	40 - 150
Fenuron	93.2		P	40 - 150
Fluridone	75.9		P	40 - 150
Hydrocodone	82.9		P	40 - 150
Ibuprofen	70.1		P	40 - 150
Imazapyr	79.6		P	40 - 150
Imidacloprid	82.9		P	40 - 160
Linuron	55.7		P	40 - 150
MCPP	91.2		P	40 - 150
Methiocarb	47.2		P	40 - 150
Methomyl	85.8		P	40 - 150
Naproxen	53.5		P	40 - 150
Oxamyl	80.8		P	40 - 150
Primidone	79.9		P	40 - 150
Propoxur	61.3		P	40 - 150
Pyraclostrobin	44.8		P	40 - 150
Triclopyr	42.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P358017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.2		P	40 - 150
Acetaminophen	97.6		P	30 - 150
Bentazon	69.4		P	30 - 150
Carbamazepine	96.0		P	40 - 150
Diuron	82.8		P	40 - 150
Fenuron	171		F	40 - 150
Fluridone	95.0		P	40 - 150
Hydrocodone	98.2		P	40 - 150
Ibuprofen	79.6		P	40 - 150
Imazapyr	91.7		P	40 - 150
Imidacloprid	92.7		P	40 - 160
Linuron	77.2		P	40 - 150
MCPP	96.9		P	40 - 150
Naproxen	87.0		P	40 - 150
Primidone	92.8		P	40 - 150
Pyraclostrobin	75.4		P	40 - 150
Triclopyr	70.5		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P358146

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.8		P	40 - 150
AMPA	118		P	40 - 150
Endothall	84.7		P	40 - 150
Glufosinate	114		P	40 - 150
Glyphosate	118		P	40 - 140
Sucralose	90.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P358749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	99.4		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P358003

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P358004

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P358553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P358556

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

Reference Method: SM 5310 B-00
Batch ID: P358265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P358142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057518	Barium	102		P	80 - 120
2057518	Iron	107		P	80 - 120
2057518	Magnesium	103		P	80 - 120
2057518	Potassium	102		P	80 - 120
2057518	Sodium	97.4		P	80 - 120
2057518	Zinc	105		P	80 - 120
2057636	Barium	109	109	P/P	80 - 120
2057636	Calcium	115		P	80 - 120
2057636	Iron	114	119	P/P	80 - 120
2057636	Magnesium	114		P	80 - 120
2057636	Zinc	113	114	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057518	Aluminum	98.5		P	80 - 120
2057518	Antimony	104		P	80 - 120
2057518	Arsenic	107		P	80 - 120
2057518	Boron	102		P	80 - 120
2057518	Cadmium	103		P	80 - 120
2057518	Chromium	99.5		P	80 - 120
2057518	Copper	101		P	80 - 120
2057518	Lead	107		P	80 - 120
2057518	Nickel	102		P	80 - 120
2057518	Selenium	101		P	80 - 120
2057518	Silver	101		P	80 - 120
2057518	Thallium	111		P	80 - 120
2057636	Aluminum	98.1	98.2	P/P	80 - 120
2057636	Antimony	104	104	P/P	80 - 120
2057636	Arsenic	108	109	P/P	80 - 120
2057636	Cadmium	105	104	P/P	80 - 120
2057636	Chromium	100	99.5	P/P	80 - 120
2057636	Copper	100	101	P/P	80 - 120
2057636	Lead	106	106	P/P	80 - 120
2057636	Nickel	99.6	100	P/P	80 - 120
2057636	Selenium	101	101	P/P	80 - 120
2057636	Silver	101	101	P/P	80 - 120
2057636	Thallium	110	110	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358372

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057693	Chloride	97.8		P	90 - 110
2057955	Chloride	95.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057693	Sulfate	97.8		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P358373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057955	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P358205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057669	Ammonia-N	101	97.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P358182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057671	Kjeldahl Nitrogen	109	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P358042

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057679	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P358158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057752	Total-P	99.9	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P358011

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057676	O-Phosphate-P	96.5	98.9	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P358144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057773	Acetochlor	99.0	118	P/P	63 - 129
2057773	Alachlor	106	114	P/P	65 - 127
2057773	Ametryn	130	142	P/P	40 - 164
2057773	Atrazine	93.5	115	P/P	66 - 135
2057773	Atrazine Desethyl	80.3	112	P/P	14 - 157
2057773	Azinphos Methyl	128	157	P/P	49 - 180
2057773	Bromacil	87.5	91.1	P/P	48 - 130
2057773	Butylate	64.1	64.5	P/P	10 - 94.0
2057773	Chlorpyrifos Ethyl	124	102	F/P	58 - 123
2057773	Chlorpyrifos Methyl	101	91.5	P/P	58 - 125
2057773	Cyanazine	90.7	93.1	P/P	24 - 253
2057773	Demeton	93.9	100	P/P	25 - 149
2057773	Diazinon	103	129	P/P	59 - 144
2057773	Dimethenamid	103	107	P/P	60 - 130
2057773	Disulfoton	105	98.6	P/P	54 - 132
2057773	Dithiopyr	89.3	90.1	P/P	60 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P358144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057773	EPTC	60.3	67.6	P/P	10 - 92.0
2057773	Ethion	106	54.0	P/P	30 - 148
2057773	Ethoprop	98.4	101	P/P	50 - 130
2057773	Fenamiphos	101	135	P/P	49 - 142
2057773	Fipronil	91.5	104	P/P	46 - 140
2057773	Fipronil Desulfinyl	82.9	83.3	P/P	60 - 130
2057773	Fipronil Sulfide	95.8	99.5	P/P	31 - 136
2057773	Fipronil Sulfone	95.9	76.7	P/P	16 - 136
2057773	Fonofos	91.1	90.1	P/P	55 - 129
2057773	Hexazinone	102	91.0	P/P	56 - 141
2057773	Malathion	105	54.4	P/F	56 - 135
2057773	Metalaxyl	99.0	100	P/P	54 - 135
2057773	Metolachlor	103	110	P/P	51 - 140
2057773	Metribuzin	140	148	P/P	45 - 254
2057773	Mevinphos	95.9	96.3	P/P	33 - 131
2057773	Molinate	83.9	91.1	P/P	14 - 98.0
2057773	Norflurazon	98.9	115	P/P	34 - 136
2057773	Oxadiazon	98.6	92.8	P/P	60 - 130
2057773	Parathion Ethyl	82.8	85.8	P/P	66 - 118
2057773	Parathion Methyl	115	127	P/P	64 - 136
2057773	Pendimethalin	88.7	90.9	P/P	59 - 144
2057773	Phorate	106	94.0	P/P	42 - 130
2057773	Prodiamine	93.5	83.5	P/P	60 - 130
2057773	Prometon	95.8	110	P/P	59 - 134
2057773	Prometryn	88.4	81.6	P/P	54 - 135
2057773	Simazine	111	103	P/P	53 - 156
2057773	Tebuconazole	95.1	43.6	P/P	30 - 100
2057773	Terbufos	98.3	101	P/P	57 - 131
2057773	Terbutylazine	101	103	P/P	68 - 125

Reference Method: EPA 8270D
Batch ID: P358259

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058324	Aldrin	53.5	51.9	P/P	25 - 92.0
2058324	Alpha-BHC	102	103	P/P	49 - 130
2058324	Alpha-Chlordane	77.8	75.0	P/P	50 - 115
2058324	Beta-BHC	136	125	P/P	43 - 157
2058324	Carbophenothion	141	130	P/P	27 - 180
2058324	Chlorothalonil	7.28	6.99	F/F	10 - 216
2058324	Cypermethrin	93.3	89.9	P/P	40 - 153
2058324	DDD-p,p'	106	97.9	P/P	53 - 128
2058324	DDE-p,p'	78.8	77.6	P/P	48 - 116
2058324	DDT-p,p'	95.6	93.5	P/P	47 - 128
2058324	Delta-BHC	143	164	P/P	51 - 196
2058324	Dicofol	101	91.5	P/P	10 - 147
2058324	Dieldrin	81.5	78.4	P/P	48 - 128
2058324	Endosulfan I	90.6	88.9	P/P	58 - 126
2058324	Endosulfan II	109	91.8	P/P	50 - 150
2058324	Endosulfan Sulfate	96.0	91.2	P/P	56 - 130
2058324	Endrin	84.8	83.2	P/P	50 - 126
2058324	Endrin Aldehyde	73.4	71.1	P/P	12 - 145

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P358259

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058324	Endrin Ketone	94.3	89.7	P/P	59 - 132
2058324	Gamma-BHC	118	117	P/P	50 - 155
2058324	Gamma-Chlordane	76.2	74.0	P/P	50 - 112
2058324	Heptachlor	69.2	65.6	P/P	41 - 98.0
2058324	Heptachlor Epoxide	84.2	80.9	P/P	55 - 117
2058324	Methoxychlor	111	97.5	P/P	55 - 133
2058324	Mirex	60.3	58.4	P/P	44 - 101
2058324	Permethrin	88.7	87.2	P/P	52 - 124
2058324	Trifluralin	84.3	83.0	P/P	10 - 201

Reference Method: EPA 8276
 Batch ID: P358259

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057772	Chlordane	61.2	60.7	P/P	34 - 136
2057772	Toxaphene	47.2	57.3	P/P	22 - 152

Reference Method: EPA 8321B
 Batch ID: P357829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2056863	2,4-D	108	118	P/P	40 - 150
2056863	Acetaminophen	88.7	88.2	P/P	30 - 150
2056863	Bentazon	54.9	51.7	P/P	30 - 150
2056863	Carbamazepine	78.0	73.8	P/P	40 - 150
2056863	Diuron	65.4	63.3	P/P	40 - 150
2056863	Fenuron	71.9	72.9	P/P	40 - 150
2056863	Fluridone	103	92.1	P/P	40 - 150
2056863	Hydrocodone	88.2	92.3	P/P	40 - 150
2056863	Ibuprofen	75.6	82.2	P/P	40 - 150
2056863	Imazapyr	114	109	P/P	40 - 150
2056863	Imidacloprid	153	142	P/P	40 - 160
2056863	Linuron	64.0	56.6	P/P	40 - 150
2056863	MCPP	135	140	P/P	40 - 150
2056863	Naproxen	62.6	57.4	P/P	40 - 150
2056863	Primidone	78.3	81.3	P/P	40 - 150
2056863	Pyraclostrobin	70.7	63.8	P/P	40 - 150
2056863	Triclopyr	69.4	85.9	P/P	40 - 150
2057630	3-Hydroxycarbofuran	62.5	69.9	P/P	40 - 150
2057630	Aldicarb	50.1	50.2	P/P	30 - 150
2057630	Aldicarb Sulfone	90.2	92.8	P/P	40 - 150
2057630	Aldicarb Sulfoxide	47.6	49.1	P/P	40 - 150
2057630	Carbaryl	42.7	45.9	P/P	40 - 150
2057630	Carbofuran	48.6	53.9	P/P	40 - 150
2057630	Methiocarb	41.4	42.3	P/P	40 - 150
2057630	Methomyl	60.2	58.6	P/P	40 - 150
2057630	Oxamyl	86.5	84.1	P/P	40 - 150
2057630	Propoxur	41.3	46.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P358017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057771	2,4-D	122	157	P/F	40 - 150
2057771	Acetaminophen	87.0	75.3	P/P	30 - 150
2057771	Bentazon	42.8	47.3	P/P	30 - 150
2057771	Carbamazepine	51.8	55.7	P/P	40 - 150
2057771	Diuron	35.6	37.9	F/F	40 - 150
2057771	Fenuron	80.6	82.7	P/P	40 - 150
2057771	Fluridone	80.2	85.8	P/P	40 - 150
2057771	Hydrocodone	67.3	67.7	P/P	40 - 150
2057771	Ibuprofen	61.2	69.0	P/P	40 - 150
2057771	Imazapyr	80.3	79.9	P/P	40 - 150
2057771	Imidacloprid	109	113	P/P	40 - 160
2057771	Linuron	37.9	43.5	F/P	40 - 150
2057771	MCP	158	180	F/F	40 - 150
2057771	Naproxen	62.5	65.8	P/P	40 - 150
2057771	Primidone	70.9	74.4	P/P	40 - 150
2057771	Pyraclostrobin	55.9	68.0	P/P	40 - 150
2057771	Triclopyr	83.2	109	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P358146

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057632	Acesulfame K	77.6	76.9	P/P	40 - 150
2057632	AMPA	57.6	85.0	P/P	40 - 150
2057632	Endothall	94.7	84.3	P/P	40 - 150
2057632	Glufosinate	84.7	125	P/P	40 - 150
2057632	Glyphosate	116	153	P/F	40 - 140
2057632	Sucralose	84.4	84.2	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P358749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2061239	Sucralose	101	109	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P358556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057985	Fluoride	98.0	98.0	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P358265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2057898	Organic Carbon	97.1	98.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P357997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057751	Turbidity	17.3	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P358142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057636	Barium	0.442	Spike	P	0 - 20
2057636	Calcium	3.10	Spike	P	0 - 20
2057636	Iron	4.06	Spike	P	0 - 20
2057636	Magnesium	2.43	Spike	P	0 - 20
2057636	Potassium	3.72	Spike	P	0 - 20
2057636	Sodium	3.75	Spike	P	0 - 20
2057636	Zinc	0.789	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P358142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057636	Aluminum	0.0599	Spike	P	0 - 20
2057636	Antimony	0.127	Spike	P	0 - 20
2057636	Arsenic	0.806	Spike	P	0 - 20
2057636	Boron	1.17	Spike	P	0 - 20
2057636	Cadmium	1.08	Spike	P	0 - 20
2057636	Chromium	0.910	Spike	P	0 - 20
2057636	Copper	0.0913	Spike	P	0 - 20
2057636	Lead	0.247	Spike	P	0 - 20
2057636	Nickel	0.610	Spike	P	0 - 20
2057636	Selenium	0.450	Spike	P	0 - 20
2057636	Silver	0.179	Spike	P	0 - 20
2057636	Thallium	0.534	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057693	Chloride	0.188	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057693	Sulfate	0.321	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057669	Ammonia-N	2.81	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057671	Kjeldahl Nitrogen	0.459	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057679	NO2NO3-N	0.800	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057752	Total-P	2.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057676	O-Phosphate-P	2.46	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P358144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057773	Acetochlor	17.1	Spike	P	0 - 30
2057773	Alachlor	6.43	Spike	P	0 - 30
2057773	Ametryn	8.97	Spike	P	0 - 30
2057773	Atrazine	6.64	Spike	P	0 - 30
2057773	Atrazine Desethyl	32.9	Spike	F	0 - 30
2057773	Azinphos Methyl	20.2	Spike	P	0 - 30
2057773	Bromacil	4.05	Spike	P	0 - 30
2057773	Butylate	0.654	Spike	P	0 - 30
2057773	Chlorpyrifos Ethyl	19.5	Spike	P	0 - 30
2057773	Chlorpyrifos Methyl	10.2	Spike	P	0 - 30
2057773	Cyanazine	2.66	Spike	P	0 - 30
2057773	Demeton	6.72	Spike	P	0 - 30
2057773	Diazinon	22.7	Spike	P	0 - 30
2057773	Dimethenamid	3.08	Spike	P	0 - 30
2057773	Disulfoton	6.17	Spike	P	0 - 30
2057773	Dithiopyr	0.875	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P358144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057773	EPTC	11.4	Spike	P	0 - 30
2057773	Ethion	64.7	Spike	F	0 - 30
2057773	Ethoprop	2.71	Spike	P	0 - 30
2057773	Fenamiphos	28.8	Spike	P	0 - 30
2057773	Fipronil	12.7	Spike	P	0 - 30
2057773	Fipronil Desulfinyl	0.481	Spike	P	0 - 30
2057773	Fipronil Sulfide	3.81	Spike	P	0 - 30
2057773	Fipronil Sulfone	20.2	Spike	P	0 - 30
2057773	Fonofos	1.10	Spike	P	0 - 30
2057773	Hexazinone	6.12	Spike	P	0 - 30
2057773	Malathion	63.0	Spike	F	0 - 30
2057773	Metalaxyl	0.858	Spike	P	0 - 30
2057773	Metolachlor	5.68	Spike	P	0 - 30
2057773	Metribuzin	5.52	Spike	P	0 - 30
2057773	Mevinphos	0.495	Spike	P	0 - 30
2057773	Molinate	8.18	Spike	P	0 - 30
2057773	Norflurazon	15.1	Spike	P	0 - 30
2057773	Oxadiazon	5.16	Spike	P	0 - 30
2057773	Parathion Ethyl	3.60	Spike	P	0 - 30
2057773	Parathion Methyl	9.26	Spike	P	0 - 30
2057773	Pendimethalin	2.46	Spike	P	0 - 30
2057773	Phorate	12.2	Spike	P	0 - 30
2057773	Prodiamine	11.2	Spike	P	0 - 30
2057773	Prometon	13.7	Spike	P	0 - 30
2057773	Prometryn	7.98	Spike	P	0 - 30
2057773	Simazine	5.76	Spike	P	0 - 30
2057773	Tebuconazole	41.6	Spike	F	0 - 30
2057773	Terbufos	2.27	Spike	P	0 - 30
2057773	Terbutylazine	1.62	Spike	P	0 - 30
LFB	Acetochlor	5.12	LCS	P	0 - 30
LFB	Alachlor	8.11	LCS	P	0 - 30
LFB	Ametryn	6.37	LCS	P	0 - 30
LFB	Atrazine	1.92	LCS	P	0 - 30
LFB	Atrazine Desethyl	6.35	LCS	P	0 - 30
LFB	Azinphos Methyl	2.86	LCS	P	0 - 30
LFB	Bromacil	8.98	LCS	P	0 - 30
LFB	Butylate	13.5	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	10.7	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.42	LCS	P	0 - 30
LFB	Cyanazine	4.95	LCS	P	0 - 30
LFB	Demeton	1.27	LCS	P	0 - 30
LFB	Diazinon	9.33	LCS	P	0 - 30
LFB	Dimethenamid	8.60	LCS	P	0 - 30
LFB	Disulfoton	5.07	LCS	P	0 - 30
LFB	Dithiopyr	7.60	LCS	P	0 - 30
LFB	EPTC	4.66	LCS	P	0 - 30
LFB	Ethion	1.68	LCS	P	0 - 30
LFB	Ethoprop	17.6	LCS	P	0 - 30
LFB	Fenamiphos	40.0	LCS	F	0 - 30
LFB	Fipronil	5.22	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	3.38	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P358144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	0.558	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.903	LCS	P	0 - 30
LFB	Fonofos	5.62	LCS	P	0 - 30
LFB	Hexazinone	27.1	LCS	P	0 - 30
LFB	Malathion	0.0194	LCS	P	0 - 30
LFB	Metalaxyl	6.76	LCS	P	0 - 30
LFB	Metolachlor	4.63	LCS	P	0 - 30
LFB	Metribuzin	3.15	LCS	P	0 - 30
LFB	Mevinphos	3.47	LCS	P	0 - 30
LFB	Molinate	7.04	LCS	P	0 - 30
LFB	Norflurazon	22.4	LCS	P	0 - 30
LFB	Oxadiazon	1.11	LCS	P	0 - 30
LFB	Parathion Ethyl	7.94	LCS	P	0 - 30
LFB	Parathion Methyl	0.467	LCS	P	0 - 30
LFB	Pendimethalin	2.92	LCS	P	0 - 30
LFB	Phorate	1.22	LCS	P	0 - 30
LFB	Prodiamine	4.89	LCS	P	0 - 30
LFB	Prometon	6.62	LCS	P	0 - 30
LFB	Prometryn	2.86	LCS	P	0 - 30
LFB	Simazine	8.45	LCS	P	0 - 30
LFB	Tebuconazole	106	LCS	F	0 - 30
LFB	Terbufos	2.78	LCS	P	0 - 30
LFB	Terbutylazine	8.90	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P358259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058324	Aldrin	2.92	Spike	P	0 - 30
2058324	Alpha-BHC	0.954	Spike	P	0 - 30
2058324	Alpha-Chlordane	3.64	Spike	P	0 - 30
2058324	Beta-BHC	8.39	Spike	P	0 - 30
2058324	Carbophenothion	7.61	Spike	P	0 - 30
2058324	Chlorothalonil	4.03	Spike	P	0 - 30
2058324	Cypermethrin	3.68	Spike	P	0 - 30
2058324	DDD-p,p'	7.53	Spike	P	0 - 30
2058324	DDE-p,p'	1.48	Spike	P	0 - 30
2058324	DDT-p,p'	2.23	Spike	P	0 - 30
2058324	Delta-BHC	13.7	Spike	P	0 - 30
2058324	Dicofol	10.1	Spike	P	0 - 30
2058324	Dieldrin	3.88	Spike	P	0 - 30
2058324	Endosulfan I	1.82	Spike	P	0 - 30
2058324	Endosulfan II	17.2	Spike	P	0 - 30
2058324	Endosulfan Sulfate	5.08	Spike	P	0 - 30
2058324	Endrin	1.82	Spike	P	0 - 30
2058324	Endrin Aldehyde	3.25	Spike	P	0 - 30
2058324	Endrin Ketone	5.00	Spike	P	0 - 30
2058324	Gamma-BHC	0.826	Spike	P	0 - 30
2058324	Gamma-Chlordane	3.02	Spike	P	0 - 30
2058324	Heptachlor	5.36	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P358259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058324	Heptachlor Epoxide	3.97	Spike	P	0 - 30
2058324	Methoxychlor	13.2	Spike	P	0 - 30
2058324	Mirex	3.13	Spike	P	0 - 30
2058324	Permethrin	1.68	Spike	P	0 - 30
2058324	Trifluralin	1.59	Spike	P	0 - 30
LFB	Aldrin	23.0	LCS	P	0 - 30
LFB	Alpha-BHC	4.10	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.42	LCS	P	0 - 30
LFB	Beta-BHC	8.95	LCS	P	0 - 30
LFB	Carbophenothion	11.3	LCS	P	0 - 30
LFB	Chlorothalonil	14.8	LCS	P	0 - 30
LFB	Cypermethrin	23.8	LCS	P	0 - 30
LFB	DDD-p,p'	6.69	LCS	P	0 - 30
LFB	DDE-p,p'	9.57	LCS	P	0 - 30
LFB	DDT-p,p'	7.85	LCS	P	0 - 30
LFB	Delta-BHC	5.52	LCS	P	0 - 30
LFB	Dicofol	1.03	LCS	P	0 - 30
LFB	Dieldrin	4.86	LCS	P	0 - 30
LFB	Endosulfan I	2.12	LCS	P	0 - 30
LFB	Endosulfan II	2.16	LCS	P	0 - 30
LFB	Endosulfan Sulfate	9.11	LCS	P	0 - 30
LFB	Endrin	1.99	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.13	LCS	P	0 - 30
LFB	Endrin Ketone	9.02	LCS	P	0 - 30
LFB	Gamma-BHC	4.19	LCS	P	0 - 30
LFB	Gamma-Chlordane	10.3	LCS	P	0 - 30
LFB	Heptachlor	14.6	LCS	P	0 - 30
LFB	Heptachlor Epoxide	6.23	LCS	P	0 - 30
LFB	Methoxychlor	12.1	LCS	P	0 - 30
LFB	Mirex	25.5	LCS	P	0 - 30
LFB	Permethrin	20.1	LCS	P	0 - 30
LFB	Trifluralin	7.28	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P358259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057772	Chlordane	0.798	Spike	P	0 - 30
2057772	Toxaphene	19.4	Spike	P	0 - 30
LFB	Chlordane	5.77	LCS	P	0 - 30
LFB	Toxaphene	9.64	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P357829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2056863	2,4-D	7.13	Spike	P	0 - 30
2056863	Acetaminophen	0.530	Spike	P	0 - 30
2056863	Bentazon	4.03	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P357829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2056863	Carbamazepine	5.63	Spike	P	0 - 30
2056863	Diuron	3.27	Spike	P	0 - 30
2056863	Fenuron	1.38	Spike	P	0 - 30
2056863	Fluridone	9.72	Spike	P	0 - 30
2056863	Hydrocodone	4.56	Spike	P	0 - 30
2056863	Ibuprofen	8.34	Spike	P	0 - 30
2056863	Imazapyr	3.53	Spike	P	0 - 30
2056863	Imidacloprid	7.15	Spike	P	0 - 30
2056863	Linuron	12.3	Spike	P	0 - 30
2056863	MCP	3.03	Spike	P	0 - 30
2056863	Naproxen	8.68	Spike	P	0 - 30
2056863	Primidone	3.88	Spike	P	0 - 30
2056863	Pyraclostrobin	10.2	Spike	P	0 - 30
2056863	Triclopyr	21.3	Spike	P	0 - 30
2057630	3-Hydroxycarbofuran	11.1	Spike	P	0 - 30
2057630	Aldicarb	0.0702	Spike	P	0 - 30
2057630	Aldicarb Sulfone	2.88	Spike	P	0 - 30
2057630	Aldicarb Sulfoxide	3.03	Spike	P	0 - 30
2057630	Carbaryl	7.19	Spike	P	0 - 30
2057630	Carbofuran	10.4	Spike	P	0 - 30
2057630	Methiocarb	1.99	Spike	P	0 - 30
2057630	Methomyl	2.66	Spike	P	0 - 30
2057630	Oxamyl	2.77	Spike	P	0 - 30
2057630	Propoxur	11.0	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P358017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057771	2,4-D	18.4	Spike	P	0 - 30
2057771	Acetaminophen	14.4	Spike	P	0 - 30
2057771	Bentazon	3.20	Spike	P	0 - 30
2057771	Carbamazepine	7.19	Spike	P	0 - 30
2057771	Diuron	5.13	Spike	P	0 - 30
2057771	Fenuron	2.63	Spike	P	0 - 30
2057771	Fluridone	6.31	Spike	P	0 - 30
2057771	Hydrocodone	0.602	Spike	P	0 - 30
2057771	Ibuprofen	12.0	Spike	P	0 - 30
2057771	Imazapyr	0.192	Spike	P	0 - 30
2057771	Imidacloprid	3.67	Spike	P	0 - 30
2057771	Linuron	13.6	Spike	P	0 - 30
2057771	MCP	12.7	Spike	P	0 - 30
2057771	Naproxen	5.17	Spike	P	0 - 30
2057771	Primidone	4.81	Spike	P	0 - 30
2057771	Pyraclostrobin	19.5	Spike	P	0 - 30
2057771	Triclopyr	26.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P358146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057632	Acesulfame K	0.928	Spike	P	0 - 30
2057632	AMPA	22.8	Spike	P	0 - 30
2057632	Endothall	11.6	Spike	P	0 - 30
2057632	Glufosinate	38.1	Spike	F	0 - 30
2057632	Glyphosate	17.3	Spike	P	0 - 30
2057632	Sucralose	0.256	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P358749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2061239	Sucralose	5.41	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P358003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057751	Color (true)	0.235	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P358004

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057593	Color (true)	0.0398	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P358553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057985	Total Alkalinity	0.250	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P358345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057751	TDS	6.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P358556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057985	Fluoride	0.0	Spike	P	0 - 3.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P358265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2057898	Organic Carbon	0.836	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: 2057767
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	51.7	P	30 - 160

Lab Sample ID: 2057768
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	70.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.2	P	30 - 160
EPA 8321B	Diuron-d6	54.9	P	30 - 160
EPA 8321B	Endothall-d6	86.3	P	40 - 160
EPA 8321B	Endothall-d6	86.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	83.1	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	83.1	P	40 - 160
EPA 8321B	Ibuprofen-d3	68.6	P	30 - 160
EPA 8321B	Primidone-d5	71.2	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	40 - 160
EPA 8321B	Sucralose-d6	101	P	40 - 160

Lab Sample ID: 2057769
Field Sample ID: G2SW0061

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.4	P	30 - 160
EPA 8321B	Diuron-d6	77.5	P	30 - 160
EPA 8321B	Endothall-d6	85.0	P	40 - 160
EPA 8321B	Endothall-d6	85.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	79.2	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	79.2	P	40 - 160
EPA 8321B	Ibuprofen-d3	91.2	P	30 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	96.2	P	40 - 160
EPA 8321B	Sucralose-d6	96.2	P	40 - 160

Lab Sample ID: 2057770
Field Sample ID: G2SW0080

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	65.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	51.9	P	30 - 160
EPA 8321B	Diuron-d6	48.1	P	30 - 160
EPA 8321B	Endothall-d6	80.6	P	40 - 160
EPA 8321B	Endothall-d6	80.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	82.2	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	82.2	P	40 - 160
EPA 8321B	Ibuprofen-d3	68.6	P	30 - 160
EPA 8321B	Primidone-d5	67.0	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	40 - 160
EPA 8321B	Sucralose-d6	105	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2057771
Field Sample ID: G2SW0081

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	95.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	62.1	P	30 - 160
EPA 8321B	Diuron-d6	58.4	P	30 - 160
EPA 8321B	Endothall-d6	76.8	P	40 - 160
EPA 8321B	Endothall-d6	76.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	81.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	81.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	80.3	P	30 - 160
EPA 8321B	Primidone-d5	77.3	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	40 - 160
EPA 8321B	Sucralose-d6	110	P	40 - 160

Lab Sample ID: 2057772
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	63.9	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	47.7	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	48.9	P	30 - 103
EPA 8276	PCNB	67.3	P	37 - 143

Lab Sample ID: 2057773
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	124	P	68 - 130
EPA 8270D	Terbufos-d10	92.4	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A89074

Included Lab Sample IDs: 2057751, 2057754

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

Reference Method: SM 2120 B

Run ID: A89075

Included Lab Sample IDs: 2057751, 2057754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115
Color (true)	104	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A89077

Included Lab Sample IDs: 2057753, 2057756

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A89086

Included Lab Sample IDs: 2057752, 2057755

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89145

Included Lab Sample IDs: 2057752, 2057755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A89146

Included Lab Sample IDs: 2057752, 2057755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	92.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A89162

Included Lab Sample IDs: 2057768, 2057769, 2057770, 2057771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	91.6	P/P	50 - 150
2,4-D	89.0	104	P/P	50 - 150
3-Hydroxycarbofuran	110	109	P/P	60 - 150
Acetaminophen	102	111	P/P	60 - 160
Acetaminophen	109	111	P/P	60 - 160
Aldicarb	100	103	P/P	60 - 150
Aldicarb Sulfone	105	102	P/P	50 - 150
Aldicarb Sulfoxide	100	100	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A89162

Included Lab Sample IDs: 2057768, 2057769, 2057770, 2057771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	112	76.7	P/P	50 - 160
Bentazon	74.5	77.5	P/P	50 - 160
Carbamazepine	102	109	P/P	60 - 150
Carbamazepine	106	100	P/P	60 - 150
Carbaryl	112	105	P/P	60 - 150
Carbofuran	116	120	P/P	50 - 150
Diuron	104	109	P/P	60 - 150
Diuron	107	109	P/P	60 - 150
Fenuron	104	104	P/P	60 - 150
Fenuron	97.3	104	P/P	60 - 150
Fluridone	102	103	P/P	60 - 160
Fluridone	96.2	99.0	P/P	60 - 160
Hydrocodone	98.4	96.6	P/P	60 - 150
Hydrocodone	99.9	101	P/P	60 - 150
Ibuprofen	97.4	80.7	P/P	50 - 160
Ibuprofen	99.0	78.1	P/P	50 - 160
Imazapyr	106	94.6	P/P	50 - 150
Imazapyr	95.1	85.7	P/P	50 - 150
Imidacloprid	94.8	93.7	P/P	60 - 150
Imidacloprid	96.7	96.3	P/P	60 - 150
Linuron	94.7	98.7	P/P	60 - 150
Linuron	99.2	105	P/P	60 - 150
MCPP	101	99.6	P/P	50 - 150
MCPP	88.2	97.9	P/P	50 - 150
Methiocarb	102	98.0	P/P	50 - 150
Methomyl	104	104	P/P	50 - 150
Naproxen	124	81.2	P/P	50 - 160
Naproxen	87.2	128	P/P	50 - 160
Oxamyl	103	103	P/P	50 - 150
Primidone	104	103	P/P	60 - 150
Primidone	99.8	105	P/P	60 - 150
Propoxur	109	109	P/P	50 - 150
Pyraclostrobin	104	105	P/P	60 - 150
Pyraclostrobin	99.5	102	P/P	60 - 150
Triclopyr	114	112	P/P	50 - 150
Triclopyr	134	121	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A89165

Included Lab Sample IDs: 2057752, 2057755

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89169

Included Lab Sample IDs: 2057752, 2057755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A89178

Included Lab Sample IDs: 2057774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	108	105	P/P	90 - 110
Calcium	109	106	P/P	90 - 110
Iron	105	105	P/P	90 - 110
Magnesium	106	106	P/P	90 - 110
Potassium	105	105	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Zinc	109	107	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A89179

Included Lab Sample IDs: 2057768, 2057769, 2057770, 2057771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	120	123	P/P	60 - 160
Glufosinate	90.6	96.1	P/P	60 - 160
Glyphosate	96.9	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A89189

Included Lab Sample IDs: 2057768, 2057769, 2057770, 2057771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.5	99.1	P/P	60 - 160
Acesulfame K	99.1	91.1	P/P	60 - 160
Endothall	79.8	81.5	P/P	60 - 160
Endothall	83.9	79.8	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A89205

Included Lab Sample IDs: 2057751, 2057754

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

Reference Method: EPA 8321B

Run ID: A89207

Included Lab Sample IDs: 2057769

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	80.9	91.9	P/P	60 - 160

Reference Method: EPA 8276

Run ID: A89217

Included Lab Sample IDs: 2057772

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.7		P	80 - 120
Toxaphene	99.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
 Run ID: A89242
 Included Lab Sample IDs: 2057772

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.3		P	80 - 120
Alpha-BHC	94.1		P	80 - 120
Alpha-Chlordane	93.7		P	80 - 120
Beta-BHC	105		P	80 - 120
Carbophenothion	103		P	80 - 120
Chlorothalonil	84.2		P	80 - 120
Cypermethrin	101		P	80 - 120
DDD-p,p'	97.2		P	80 - 120
DDE-p,p'	94.9		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	96.6		P	80 - 120
Dicofol	95.7		P	80 - 120
Dieldrin	94.6		P	80 - 120
Endosulfan I	94.5		P	80 - 120
Endosulfan II	95.1		P	80 - 120
Endosulfan Sulfate	99.4		P	80 - 120
Endrin	95.7		P	80 - 120
Endrin Aldehyde	97.0		P	80 - 120
Endrin Ketone	98.7		P	80 - 120
Gamma-BHC	96.8		P	80 - 120
Gamma-Chlordane	94.2		P	80 - 120
Heptachlor	94.6		P	80 - 120
Heptachlor Epoxide	94.4		P	80 - 120
Methoxychlor	98.6		P	80 - 120
Mirex	97.6		P	80 - 120
Permethrin	93.6		P	80 - 120
Trifluralin	93.6		P	80 - 120

Reference Method: SM 2320 B-97
 Run ID: A89272
 Included Lab Sample IDs: 2057751, 2057754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.1	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Run ID: A89272
 Included Lab Sample IDs: 2057751, 2057754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
 Run ID: A89274
 Included Lab Sample IDs: 2057774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.4	97.9	P/P	90 - 110
Antimony	97.7	97.8	P/P	90 - 110
Arsenic	99.4	99.6	P/P	90 - 110
Boron	99.5	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89274

Included Lab Sample IDs: 2057774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	97.6	97.7	P/P	90 - 110
Chromium	99.5	97.0	P/P	90 - 110
Copper	99.3	100	P/P	90 - 110
Lead	105	104	P/P	90 - 110
Nickel	99.2	99.6	P/P	90 - 110
Selenium	96.3	95.5	P/P	90 - 110
Silver	98.7	98.4	P/P	90 - 110
Thallium	98.5	98.2	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A89457

Included Lab Sample IDs: 2057773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.5		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	98.9		P	80 - 120
Atrazine	94.6		P	80 - 120
Atrazine Desethyl	92.0		P	80 - 120
Azinphos Methyl	94.8		P	80 - 120
Bromacil	94.5		P	80 - 120
Butylate	99.6		P	80 - 120
Chlorpyrifos Ethyl	95.4		P	80 - 120
Chlorpyrifos Methyl	98.2		P	80 - 120
Cyanazine	88.5		P	80 - 120
Demeton	97.0		P	80 - 120
Diazinon	97.9		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	102		P	80 - 120
Dithiopyr	94.1		P	80 - 120
EPTC	97.6		P	80 - 120
Ethion	90.5		P	80 - 120
Ethoprop	99.3		P	80 - 120
Fenamiphos	97.2		P	80 - 120
Fipronil	95.5		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	98.2		P	80 - 120
Fipronil Sulfone	99.4		P	80 - 120
Fonofos	98.0		P	80 - 120
Hexazinone	97.9		P	80 - 120
Malathion	91.2		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	99.2		P	80 - 120
Metribuzin	73.1*		F	80 - 120
Mevinphos	100		P	80 - 120
Molinate	98.0		P	80 - 120
Norflurazon	92.6		P	80 - 120
Oxadiazon	99.5		P	80 - 120
Parathion Ethyl	97.2		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	95.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A89457

Included Lab Sample IDs: 2057773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phorate	95.4		P	80 - 120
Prodiamine	88.2		P	80 - 120
Prometon	98.8		P	80 - 120
Prometryn	100		P	80 - 120
Simazine	101		P	80 - 120
Tebuconazole	94.1		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbutylazine	98.5		P	80 - 120

Reference Method: EPA 8321B

Run ID: A89461

Included Lab Sample IDs: 2057768, 2057770, 2057771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	106	105	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		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						17.3	
EPA 200.7 Rev. 4.4	Barium	102		102	109	109		0.442
	Calcium	104		115				3.10
	Iron	105		107	114	119		4.06
	Magnesium	104		103	114			2.43
	Potassium	103		102				3.72
	Sodium	101		97.4				3.75
	Zinc	102		105	113	114		0.789
EPA 200.8 Rev. 5.4	Aluminum	102		98.5	98.1	98.2		0.0599
	Antimony	101		104	104	104		0.127
	Arsenic	105		107	108	109		0.806
	Boron	104		102				1.17
	Cadmium	103		103	105	104		1.08
	Chromium	98.5		99.5	100	99.5		0.910
	Copper	103		101	100	101		0.0913
	Lead	106		107	106	106		0.247
	Nickel	103		102	99.6	100		0.610
	Selenium	99.7		101	101	101		0.450
	Silver	102		101	101	101		0.179
	Thallium	104		111	110	110		0.534
EPA 300.0 Rev. 2.1	Chloride	100		97.8	95.6		0.188	
	Sulfate	100		97.8	101		0.321	
EPA 350.1 Rev. 2.0	Ammonia-N	99.5		101	97.4			2.81
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		109	108			0.459
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	103			0.800
EPA 365.1 Rev. 2.0	Total-P	101		99.9	96.0			2.06
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		96.5	98.9			2.46
EPA 8270D	Acetochlor	98.1	93.2	99.0	118	5.12		17.1
	Alachlor	105	96.5	106	114	8.11		6.43
	Aldrin	48.3	60.8	53.5	51.9	23.0		2.92
	Alpha-BHC	98.1	102	102	103	4.10		0.954
	Alpha-Chlordane	75.9	82.6	77.8	75.0	8.42		3.64
	Ametryn	96.0	102	130	142	6.37		8.97
	Atrazine	95.3	93.5	93.5	115	1.92		6.64
	Atrazine Desethyl	76.7	81.7	80.3	112	6.35		32.9
	Azinphos Methyl	108	111	128	157	2.86		20.2
	Beta-BHC	128	140	136	125	8.95		8.39
	Bromacil	74.2	81.1	87.5	91.1	8.98		4.05
	Butylate	77.0	67.3	64.1	64.5	13.5		0.654
	Carbophenothion	87.8	98.3	141	130	11.3		7.61
	Chlorothalonil	78.6	91.2	7.28	6.99	14.8		4.03
	Chlorpyrifos Ethyl	101	90.3	124	102	10.7		19.5
	Chlorpyrifos Methyl	92.4	84.1	101	91.5	9.42		10.2
	Cyanazine	80.3	84.4	90.7	93.1	4.95		2.66
	Cypermethrin	66.0	83.9	93.3	89.9	23.8		3.68
	DDD-p,p'	92.6	99.1	106	97.9	6.69		7.53
	DDE-p,p'	75.6	83.2	78.8	77.6	9.57		1.48
	DDT-p,p'	88.2	95.4	95.6	93.5	7.85		2.23
	Delta-BHC	138	131	143	164	5.52		13.7
	Demeton	70.5	71.4	93.9	100	1.27		6.72
	Diazinon	98.3	89.6	103	129	9.33		22.7
	Dicofol	103	102	101	91.5	1.03		10.1
	Dieldrin	87.4	91.7	81.5	78.4	4.86		3.88
	Dimethenamid	104	95.6	103	107	8.60		3.08

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Disulfoton	78.0	82.1	105	98.6	5.07	6.17
	Dithiopyr	96.9	89.8	89.3	90.1	7.60	0.875
	Endosulfan I	88.0	89.8	90.6	88.9	2.12	1.82
	Endosulfan II	99.2	101	109	91.8	2.16	17.2
	Endosulfan Sulfate	82.0	89.9	96.0	91.2	9.11	5.08
	Endrin	89.7	91.5	84.8	83.2	1.99	1.82
	Endrin Aldehyde	106	112	73.4	71.1	6.13	3.25
	Endrin Ketone	82.9	90.8	94.3	89.7	9.02	5.00
	EPTC	73.7	70.3	60.3	67.6	4.66	11.4
	Ethion	107	106	106	54.0	1.68	64.7
	Ethoprop	98.8	82.8	98.4	101	17.6	2.71
	Fenamiphos	57.4	86.1	101	135	40.0	28.8
	Fipronil	96.1	101	91.5	104	5.22	12.7
	Fipronil Desulfinyl	98.2	94.9	82.9	83.3	3.38	0.481
	Fipronil Sulfide	99.7	100	95.8	99.5	0.558	3.81
	Fipronil Sulfone	99.9	99.0	95.9	76.7	0.903	20.2
	Fonofos	80.8	76.4	91.1	90.1	5.62	1.10
	Gamma-BHC	113	117	118	117	4.19	0.826
	Gamma-Chlordane	72.8	80.7	76.2	74.0	10.3	3.02
	Heptachlor	57.8	66.9	69.2	65.6	14.6	5.36
	Heptachlor Epoxide	82.1	87.4	84.2	80.9	6.23	3.97
	Hexazinone	122	93.2	102	91.0	27.1	6.12
	Malathion	99.8	99.8	105	54.4	0.0194	63.0
	Metalaxyl	55.2	59.1	99.0	100	6.76	0.858
	Methoxychlor	101	114	111	97.5	12.1	13.2
	Metolachlor	104	99.2	103	110	4.63	5.68
	Metribuzin	78.6	76.1	140	148	3.15	5.52
	Mevinphos	87.4	84.4	95.9	96.3	3.47	0.495
	Mirex	37.5	48.5	60.3	58.4	25.5	3.13
	Molinate	81.4	75.8	83.9	91.1	7.04	8.18
	Norflurazon	83.2	104	98.9	115	22.4	15.1
	Oxadiazon	107	106	98.6	92.8	1.11	5.16
	Parathion Ethyl	84.0	91.0	82.8	85.8	7.94	3.60
	Parathion Methyl	96.4	96.0	115	127	0.467	9.26
	Pendimethalin	92.1	89.5	88.7	90.9	2.92	2.46
	Permethrin	63.0	77.1	88.7	87.2	20.1	1.68
	Phorate	72.9	73.8	106	94.0	1.22	12.2
	Prodiamine	103	98.1	93.5	83.5	4.89	11.2
	Prometon	87.3	93.3	95.8	110	6.62	13.7
	Prometryn	96.1	98.9	88.4	81.6	2.86	7.98
	Simazine	110	101	111	103	8.45	5.76
	Tebuconazole	27.9	90.9	95.1	43.6	106	41.6
	Terbufos	78.6	76.5	98.3	101	2.78	2.27
	Terbuthylazine	106	97.2	101	103	8.90	1.62
	Trifluralin	78.8	84.7	84.3	83.0	7.28	1.59
EPA 8276	Chlordane	72.4	76.7	61.2	60.7	5.77	0.798
	Toxaphene	51.8	57.0	47.2	57.3	9.64	19.4
EPA 8321B	2,4-D	64.0		108	118		7.13
	2,4-D	83.2		122	157		18.4
	3-Hydroxycarbofuran	79.4		62.5	69.9		11.1
	Acesulfame K	95.8		77.6	76.9		0.928
	Acetaminophen	79.8		88.7	88.2		0.530
	Acetaminophen	97.6		87.0	75.3		14.4
	Aldicarb	70.3		50.2	50.1		0.0702

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Aldicarb Sulfone	82.7	90.2	92.8			2.88
	Aldicarb Sulfoxide	74.9	47.6	49.1			3.03
	AMPA	118	57.6	85.0			22.8
	Bentazon	70.4	54.9	51.7			4.03
	Bentazon	69.4	42.8	47.3			3.20
	Carbamazepine	78.5	78.0	73.8			5.63
	Carbamazepine	96.0	51.8	55.7			7.19
	Carbaryl	56.9	45.9	42.7			7.19
	Carbofuran	67.7	53.9	48.6			10.4
	Diuron	63.3	65.4	63.3			3.27
	Diuron	82.8	35.6	37.9			5.13
	Endothall	84.7	94.7	84.3			11.6
	Fenuron	93.2	71.9	72.9			1.38
	Fenuron	171	80.6	82.7			2.63
	Fluridone	75.9	103	92.1			9.72
	Fluridone	95.0	80.2	85.8			6.31
	Glufosinate	114	84.7	125			38.1
	Glyphosate	118	116	153			17.3
	Hydrocodone	82.9	88.2	92.3			4.56
	Hydrocodone	98.2	67.3	67.7			0.602
	Ibuprofen	70.1	75.6	82.2			8.34
	Ibuprofen	79.6	61.2	69.0			12.0
	Imazapyr	79.6	114	109			3.53
	Imazapyr	91.7	80.3	79.9			0.192
	Imidacloprid	82.9	153	142			7.15
	Imidacloprid	92.7	109	113			3.67
	Linuron	55.7	64.0	56.6			12.3
	Linuron	77.2	37.9	43.5			13.6
	MCPP	91.2	135	140			3.03
	MCPP	96.9	158	180			12.7
	Methiocarb	47.2	42.3	41.4			1.99
	Methomyl	85.8	60.2	58.6			2.66
	Naproxen	53.5	62.6	57.4			8.68
	Naproxen	87.0	62.5	65.8			5.17
	Oxamyl	80.8	86.5	84.1			2.77
	Primidone	79.9	78.3	81.3			3.88
	Primidone	92.8	70.9	74.4			4.81
	Propoxur	61.3	46.1	41.3			11.0
	Pyraclostrobin	44.8	70.7	63.8			10.2
	Pyraclostrobin	75.4	55.9	68.0			19.5
	Sucralose	90.7	84.4	84.2			0.256
	Sucralose	99.4	101	109			5.41
	Triclopyr	42.5	69.4	85.9			21.3
	Triclopyr	70.5	83.2	109			26.7
SM 2120 B	Color (true)	102				0.235	
	Color (true)	103				0.0398	
SM 2320 B-97	Total Alkalinity	102				0.250	
SM 2540 C-97	TDS					6.06	
SM 4500 F-C-97	Fluoride	96.0	98.0	98.0			0.0
SM 5310 B-00	Organic Carbon	98.2	97.1	98.0			0.836

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2057751, 2057754
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2057774
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2057774
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2057751, 2057754
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2057751, 2057754
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2057752, 2057755
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2057752, 2057755
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2057752, 2057755
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2057752, 2057755
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2057753, 2057756
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2057772
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2057773
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2057772
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2057767
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2057768, 2057769, 2057770, 2057771
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2057768, 2057769, 2057770, 2057771
SM 2120 B / E31780	True Color measured at 450 nm	2057751, 2057754
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2057751, 2057754
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2057751, 2057754
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2057751, 2057754
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2057751, 2057754
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2057752, 2057755

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	01/29/2019			01/29/2019 16:31	Megan Treadwell	2057751, 2057754
EPA 200.7 Rev. 4.4	01/29/2019	01/31/2019 17:30	Elliott D. Healy	02/04/2019 14:41	Betina Topolski	2057774
EPA 200.8 Rev. 5.4	01/29/2019	01/31/2019 17:30	Elliott D. Healy	02/08/2019 00:16	Allison Taylor	2057774
EPA 300.0 Rev. 2.1	01/29/2019			02/04/2019 21:58	Lipi Saha	2057751
	01/29/2019			02/04/2019 22:13	Lipi Saha	2057754
EPA 350.1 Rev. 2.0	01/29/2019			02/01/2019 12:39	Ping Hua	2057752
	01/29/2019			02/01/2019 12:41	Ping Hua	2057755
EPA 351.2 Rev. 2.0	01/29/2019	02/01/2019 13:15	Adrian Shelby	02/04/2019 12:04	Joseph Suarez	2057752
	01/29/2019	02/01/2019 13:15	Adrian Shelby	02/04/2019 12:05	Joseph Suarez	2057755
EPA 353.2 Rev. 2.0	01/29/2019			01/30/2019 11:24	Beverly Y. Sanders	2057752
	01/29/2019			01/30/2019 11:26	Beverly Y. Sanders	2057755
EPA 365.1 Rev. 2.0	01/29/2019	01/31/2019 14:30	Sima Feizi	02/01/2019 12:36	Rosalyn Ballman	2057752
	01/29/2019	01/31/2019 14:30	Sima Feizi	02/01/2019 12:40	Rosalyn Ballman	2057755
EPA 365.1 Rev. 2.0 dissolved	01/29/2019			01/29/2019 16:03	Jhamieka S. Greenwood	2057753
	01/29/2019			01/29/2019 16:04	Jhamieka S. Greenwood	2057756
EPA 8270D	01/29/2019	02/01/2019 08:30	Rasheda Ghaffari	02/04/2019 22:31	Vandana T. Nagar	2057773
	01/29/2019	02/01/2019 09:00	Fe-Val Siddell	02/06/2019 19:48	Dinesh Mishra	2057772
EPA 8276	01/29/2019	02/01/2019 09:00	Fe-Val Siddell	02/05/2019 06:44	Arthur Maknenko	2057772
EPA 8321B	01/29/2019	01/30/2019 09:00	Hoor Shaik	01/31/2019 11:17	Juyoung Kim	2057767
	01/29/2019	01/30/2019 09:00	Hoor Shaik	02/01/2019 14:43	Juyoung Kim	2057768
	01/29/2019	01/30/2019 09:00	Hoor Shaik	02/01/2019 15:17	Juyoung Kim	2057769
	01/29/2019	02/01/2019 09:00	Hoor Shaik	02/01/2019 22:12	Juyoung Kim	2057770
	01/29/2019	02/01/2019 09:00	Hoor Shaik	02/01/2019 23:56	Juyoung Kim	2057771
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/01/2019 12:28	Rebecca Ware	2057768
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/01/2019 12:38	Rebecca Ware	2057769
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/01/2019 12:49	Rebecca Ware	2057770
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/01/2019 13:00	Rebecca Ware	2057771
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/03/2019 00:27	Rebecca Ware	2057768
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/03/2019 00:40	Rebecca Ware	2057769
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/03/2019 00:54	Rebecca Ware	2057770
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/03/2019 01:22	Rebecca Ware	2057771
	01/29/2019	02/01/2019 09:00	Rebecca Ware	02/04/2019 17:49	Rebecca Ware	2057769
	01/29/2019	02/13/2019 14:30	Rebecca Ware	02/16/2019 05:06	Mohammad Ghaffari	2057768
	01/29/2019	02/13/2019 14:30	Rebecca Ware	02/16/2019 05:19	Mohammad Ghaffari	2057770
	01/29/2019	02/13/2019 14:30	Rebecca Ware	02/16/2019 05:33	Mohammad Ghaffari	2057771
SM 2120 B	01/29/2019			01/29/2019 16:21	Chelsea Hernandez	2057751
	01/29/2019			01/29/2019 16:48	Chelsea Hernandez	2057754
SM 2320 B-97	01/29/2019			02/07/2019 06:32	Dale L. Simmons	2057751
	01/29/2019			02/07/2019 06:44	Dale L. Simmons	2057754
SM 2540 C-97	01/29/2019			01/31/2019 14:21	Yijie Li	2057751, 2057754

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	01/29/2019			01/31/2019 14:21	Yijie Li	2057751, 2057754
SM 4500 F-C-97	01/29/2019			02/07/2019 06:32	Dale L. Simmons	2057751
	01/29/2019			02/07/2019 06:44	Dale L. Simmons	2057754
SM 5310 B-00	01/29/2019			02/01/2019 17:47	Julia Storbeck	2057752
	01/29/2019			02/01/2019 17:59	Julia Storbeck	2057755