

Chemical Analysis Report

SE-DIST-2019-10-17-02

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

Event Description: **SMP-LW Drainage**
Request ID: **RQ-2019-10-07-31**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Drew Liddick

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 19-NOV-2019 18:45



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: E-2 A Clint Moore

Collection Date/Time: 10/16/2019 13:30

Field ID: G3SE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129111	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P372678	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P373388	
		Sulfate	20		mg SO4/L	P373390	
	SM 2120 B	Color (true)	48		PCU	P372685	
	SM 2320 B-97	Total Alkalinity	155		mg CaCO3/L	P372889	
	SM 2540 C-97	TDS	274	A	mg/L	P373146	
	SM 2540 D-97	TSS	6	IA	mg/L	P372912	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P372894	
2129112	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P372986	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P372996	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372809	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P372905	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P372968	
2129113	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P372701	
2129141	EPA 8321B	Aldicarb	0.020	U	ug/L	P372737	
		Aldicarb Sulfone	0.0020	U	ug/L	P372737	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P372737	
		Carbaryl	0.0020	U	ug/L	P372737	
		Carbofuran	0.0020	U	ug/L	P372737	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P372737	
		Methiocarb	0.0020	U	ug/L	P372737	
		Methomyl	0.0020	U	ug/L	P372737	
		Oxamyl	0.0020	U	ug/L	P372737	
		Propoxur	0.0020	U	ug/L	P372737	
2129142		2,4-D	0.035		ug/L	P372798	
		Acesulfame K**	0.10	U	ug/L	P372770	
		AMPA**	1.6	QJ	ug/L	P372770	MS
		Sucralose**	0.17	Q	ug/L	P372770	
		Acetaminophen**	0.0080	U	ug/L	P372798	
		Acetamiprid**	0.0020	U	ug/L	P372798	
		Endothall**	0.25	U	ug/L	P372770	
		Glufosinate**	0.10	UQ	ug/L	P372770	
		Glyphosate**	1.3	Q	ug/L	P372770	
		Afidopyropen**	0.0020	UJ	ug/L	P372798	
		Bentazon	8.0E-04	U	ug/L	P372798	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372798	
		Carbamazepine**	8.0E-04	U	ug/L	P372798	
		Clothianidin**	0.0072	I	ug/L	P372798	
		Dinotefuran**	0.017		ug/L	P372798	
		Diuron	0.010		ug/L	P372798	
		Fenuron	0.016	U	ug/L	P372798	
		Fluridone**	0.29		ug/L	P372798	
		Imazapyr**	0.095		ug/L	P372798	

Field ID: G3SE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129142	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P372798	
		Ibuprofen**	0.020	U	ug/L	P372798	
		Imidacloprid	1.4		ug/L	P372798	
		Linuron	0.0040	U	ug/L	P372798	
		Mandestrobin**	0.0020	UJ	ug/L	P372798	
		MCP	0.0066	I	ug/L	P372798	
		Naproxen**	0.0080	U	ug/L	P372798	
		Primidone**	0.0040	U	ug/L	P372798	
		Pyraclostrobin**	0.0020	U	ug/L	P372798	
		Thiamethoxam**	0.0020	U	ug/L	P372798	
		Tolfenpyrad**	0.0020	U	ug/L	P372798	
		Triclopyr**	0.0040	U	ug/L	P372798	
2129148	EPA 8270E	Aldrin	4.2	U	ng/L	P372823	
		Alpha-BHC	2.1	U	ng/L	P372823	
		Alpha-Chlordane	1.1	U	ng/L	P372823	
		Beta-BHC	11	U	ng/L	P372823	
		Bifenthrin**	4.2	U	ng/L	P372823	
		Delta-BHC	8.4	U	ng/L	P372823	
		Gamma-BHC	8.4	U	ng/L	P372823	
		Carbophenothion	11	U	ng/L	P372823	
		Chlorothalonil	2.1	U	ng/L	P372823	
		Cis-Nonachlor**	1.1	U	ng/L	P372823	
		Cypermethrin	21	U	ng/L	P372823	
		DDD-p,p'	6.3	U	ng/L	P372823	
		DDE-p,p'	6.3	U	ng/L	P372823	
		DDT-p,p'	7.4	U	ng/L	P372823	
		Dicofol	32	U	ng/L	P372823	
		Dieldrin	4.2	U	ng/L	P372823	
		Endosulfan I	4.2	U	ng/L	P372823	
		Endosulfan II	4.2	U	ng/L	P372823	
		Endosulfan Sulfate	2.1	U	ng/L	P372823	
		Endrin	2.1	U	ng/L	P372823	
		Endrin Aldehyde	2.1	U	ng/L	P372823	
		Endrin Ketone	2.1	U	ng/L	P372823	
		Ethalfuralin**	3.2	U	ng/L	P372823	
		Gamma-Chlordane	1.1	U	ng/L	P372823	
		Heptachlor	1.6	U	ng/L	P372823	
		Heptachlor Epoxide	2.1	U	ng/L	P372823	
		Hexachlorobenzene	2.1	U	ng/L	P372823	
		Methoxychlor	4.2	U	ng/L	P372823	
		Mirex	2.1	U	ng/L	P372823	
		Permethrin	11	U	ng/L	P372823	
		Trans-Nonachlor**	1.1	U	ng/L	P372823	
		Trifluralin	2.6	U	ng/L	P372823	
	EPA 8276	Chlordane	7.4	I	ng/L	P372823	

Field ID: G3SE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129148	EPA 8276	Toxaphene	32	U	ng/L	P372823	
2129149	EPA 8270E	Acetochlor	0.26	U	ng/L	P372696	
		Alachlor	0.26	U	ng/L	P372696	
		Ametryn	0.63	U	ng/L	P372696	
		Atrazine	39		ng/L	P372696	
		Atrazine Desethyl	1.6	U	ng/L	P372696	
		Azinphos Methyl	5.2	U	ng/L	P372696	
		Bromacil	0.52	U	ng/L	P372696	
		Butylate	0.42	U	ng/L	P372696	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P372696	
		Chlorpyrifos Methyl	0.10	U	ng/L	P372696	
		Cyanazine	3.4	U	ng/L	P372696	
		Demeton	7.3	UJ	ng/L	P372696	LCS, MS
		Diazinon	0.13	U	ng/L	P372696	
		Dimethenamid**	0.45		ng/L	P372696	
		Disulfoton	0.52	U	ng/L	P372696	
		Dithiopyr**	0.98		ng/L	P372696	
		EPTC	1.3	U	ng/L	P372696	
		Ethion	0.16	U	ng/L	P372696	
		Ethoprop	0.10	U	ng/L	P372696	
		Fenamiphos	0.52	U	ng/L	P372696	
		Fipronil	0.34	I	ng/L	P372696	
		Fipronil Desulfinyl**	0.30	I	ng/L	P372696	
		Fipronil Sulfide	0.21	IJ	ng/L	P372696	CCV
		Fipronil Sulfone	0.90		ng/L	P372696	
		Fonofos	0.21	U	ng/L	P372696	
		Hexazinone	2.3		ng/L	P372696	
		Malathion	0.37	U	ng/L	P372696	
		Metalaxyl	2.5		ng/L	P372696	
		Metolachlor	9.4		ng/L	P372696	
		Metribuzin	0.78	UJ	ng/L	P372696	CCV
		Mevinphos	0.52	U	ng/L	P372696	
		Molinate	0.31	U	ng/L	P372696	
		Norflurazon	0.52	U	ng/L	P372696	
		Oxadiazon**	2.8		ng/L	P372696	
		Parathion Ethyl	0.26	U	ng/L	P372696	MS
		Parathion Methyl	0.57	U	ng/L	P372696	
		Pendimethalin	1.0	U	ng/L	P372696	
		Phorate	0.26	U	ng/L	P372696	
		Prodiamine**	0.18	U	ng/L	P372696	
		Prometon	0.94	U	ng/L	P372696	
		Prometryn	0.21	U	ng/L	P372696	
		Simazine	0.52	U	ng/L	P372696	
		Tebuconazole**	0.89	I	ng/L	P372696	
		Terbufos	0.10	U	ng/L	P372696	

Field ID: G3SE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129149	EPA 8270E	Terbutylazine	0.44	U	ng/L	P372696	
2129150	EPA 200.7 Rev. 4.4	Barium	10.5		ug/L	P372820	
		Calcium	62.9		mg/L	P372820	
		Iron	51	I	ug/L	P372820	
		Magnesium	4.74		mg/L	P372820	
		Potassium	5.3		mg/L	P372820	
		Sodium	23.3		mg/L	P372820	
		Zinc	5.0	U	ug/L	P372820	
	EPA 200.8 Rev. 5.4	Aluminum	36		ug/L	P372820	
		Antimony	0.12	I	ug/L	P372820	
		Arsenic	1.65		ug/L	P372820	
		Boron**	39.6		ug/L	P372820	
		Cadmium	0.020	U	ug/L	P372820	
		Chromium	0.56	I	ug/L	P372820	
		Copper	1.45		ug/L	P372820	
		Lead	0.20	U	ug/L	P372820	
		Nickel	0.50	U	ug/L	P372820	
		Selenium	0.20	U	ug/L	P372820	
		Silver	0.010	U	ug/L	P372820	
		Thallium	0.10	U	ug/L	P372820	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for acetaminophen and imidacloprid could not be assessed due to high concentration of parameter in the spiked sample. Results confirmed in re-extraction.

EPA 8321B: Sample required re-extraction beyond normal holding time due to technical difficulties. Results confirmed in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for bromacil, metolachlor, fipronil sulfone, atrazine, metalaxyl, and metribuzin not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: E-2 A Clint Moore

Collection Date/Time: 10/16/2019 13:40

Field ID: FB_10162019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129114	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P372678	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P373388	
		Sulfate	0.20	U	mg SO4/L	P373390	
	SM 2120 B	Color (true)	2.5	U	PCU	P372685	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P372889	
	SM 2540 C-97	TDS	15	U	mg/L	P373146	
	SM 2540 D-97	TSS	2	U	mg/L	P372912	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P372894	
2129115	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P372986	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P372993	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372809	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P372905	
	SM 5310 B-00	Organic Carbon	0.70	I	mg C/L	P372968	
2129116	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P372701	
2129143	EPA 8321B	2,4-D	0.032		ug/L	P372798	
		Acesulfame K**	0.10	U	ug/L	P372770	
		AMPA**	1.2	Q	ug/L	P372770	MS
		Sucralose**	0.18	Q	ug/L	P372770	
		Acetaminophen**	0.0080	U	ug/L	P372798	
		Acetamiprid**	0.0020	U	ug/L	P372798	
		Endothall**	0.25	U	ug/L	P372770	
		Glufosinate**	0.10	UQ	ug/L	P372770	
		Glyphosate**	1.2	Q	ug/L	P372770	
		Afidopyropen**	0.0020	UJ	ug/L	P372798	
		Bentazon	8.0E-04	U	ug/L	P372798	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372798	
		Carbamazepine**	8.0E-04	U	ug/L	P372798	
		Clothianidin**	0.0060	I	ug/L	P372798	
		Dinotefuran**	0.016		ug/L	P372798	
		Diuron	0.0097		ug/L	P372798	
		Fenuron	0.016	U	ug/L	P372798	
		Fluridone**	0.28		ug/L	P372798	
		Imazapyr**	0.095		ug/L	P372798	
		Hydrocodone**	0.0020	U	ug/L	P372798	
		Ibuprofen**	0.020	U	ug/L	P372798	
		Imidacloprid	1.3		ug/L	P372798	
		Linuron	0.0040	U	ug/L	P372798	
		Mandestrobin**	0.0020	UJ	ug/L	P372798	
		MCP	0.0059	I	ug/L	P372798	
		Naproxen**	0.0080	U	ug/L	P372798	
		Primidone**	0.0040	U	ug/L	P372798	
		Pyraclostrobin**	0.0020	U	ug/L	P372798	
		Thiamethoxam**	0.0020	U	ug/L	P372798	

Field ID: FB_10162019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129143	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P372798	
		Triclopyr**	0.0040	U	ug/L	P372798	
2129151	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P372820	
		Calcium	0.075	U	mg/L	P372820	
		Iron	30	U	ug/L	P372820	
		Magnesium	0.040	U	mg/L	P372820	
		Potassium	0.30	U	mg/L	P372820	
		Sodium	0.50	U	mg/L	P372820	
		Zinc	5.0	U	ug/L	P372820	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P372820	
		Antimony	0.050	U	ug/L	P372820	
		Arsenic	0.050	U	ug/L	P372820	
		Boron**	2.0	U	ug/L	P372820	
		Cadmium	0.020	U	ug/L	P372820	
		Chromium	0.40	U	ug/L	P372820	
		Copper	0.40	U	ug/L	P372820	
		Lead	0.20	U	ug/L	P372820	
		Nickel	0.50	U	ug/L	P372820	
		Selenium	0.20	U	ug/L	P372820	
		Silver	0.010	U	ug/L	P372820	
		Thallium	0.10	U	ug/L	P372820	

Ref. Method and Comment:

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

SM 5310 B-00: The result was confirmed on 10/24/2019.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for acetaminophen and imidacloprid could not be assessed due to high concentration of parameter in the spiked sample. Results confirmed in re-extraction.

EPA 8321B: Sample required re-extraction beyond normal holding time due to technical difficulties. Results confirmed in re-extraction.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372678

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372820

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: P372820

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: P373388

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373390

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372986

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: P372993

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372996

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372809

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372905

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372701

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

Reference Method: EPA 8270E
Batch ID: P372696

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P372696

Component	Result	Code	Units
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
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 8270E
Batch ID: P372823

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	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P372823

Component	Result	Code	Units
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 8276
Batch ID: P372823

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

Reference Method: EPA 8321B
Batch ID: P372737

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

Reference Method: EPA 8321B
Batch ID: P372770

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: EPA 8321B
Batch ID: P372798

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyrophen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P372798

Component	Result	Code	Units
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	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
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P372685

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P372889

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

Reference Method: SM 2540 C-97
Batch ID: P373146

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372912

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P372894

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: P372968

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: P372820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	106		P	85 - 115
Calcium	105		P	85 - 115
Iron	103		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	98.9		P	85 - 115
Sodium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.9		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	99.7		P	85 - 115
Boron	94.7		P	85 - 115
Cadmium	97.9		P	85 - 115
Chromium	98.0		P	85 - 115
Copper	95.4		P	85 - 115
Lead	99.4		P	85 - 115
Nickel	97.1		P	85 - 115
Selenium	91.3		P	85 - 115
Silver	102		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373388

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373390

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372986

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372993

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P372996

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372809

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P372905

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P372701

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

Reference Method: EPA 8270E
 Batch ID: P372696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	93.9	P/P	69 - 122
Alachlor	104	99.1	P/P	71 - 120
Ametryn	82.1	80.9	P/P	47 - 138
Atrazine	93.0	95.1	P/P	74 - 124
Atrazine Desethyl	87.0	78.1	P/P	38 - 138
Azinphos Methyl	109	89.1	P/P	69 - 154
Bromacil	87.8	80.2	P/P	39 - 121
Butylate	69.6	62.9	P/P	27 - 87.0
Chlorpyrifos Ethyl	106	97.5	P/P	69 - 118
Chlorpyrifos Methyl	97.1	90.4	P/P	70 - 120
Cyanazine	139	123	P/P	20 - 250
Demeton	174	159	F/F	39 - 118
Diazinon	97.6	84.9	P/P	68 - 127
Dimethenamid	89.4	83.0	P/P	66 - 125
Disulfoton	94.3	85.2	P/P	52 - 126
Dithiopyr	93.0	87.2	P/P	67 - 127
EPTC	63.4	59.7	P/P	24 - 88.0
Ethion	56.5	53.4	P/P	51 - 132
Ethoprop	94.5	87.1	P/P	58 - 117
Fenamiphos	86.5	87.9	P/P	38 - 139
Fipronil	91.5	84.7	P/P	61 - 124
Fipronil Desulfinyl	68.1	60.4	P/P	47 - 120
Fipronil Sulfide	105	85.0	P/P	56 - 119
Fipronil Sulfone	90.1	82.8	P/P	50 - 117
Fonofos	95.7	90.0	P/P	60 - 121
Hexazinone	111	102	P/P	55 - 137
Malathion	92.6	87.1	P/P	66 - 126
Metalaxyl	105	96.8	P/P	33 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P372696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	107	94.4	P/P	69 - 119
Metribuzin	177	149	P/P	31 - 238
Mevinphos	96.5	90.7	P/P	42 - 113
Molinate	70.8	65.9	P/P	32 - 96.0
Norflurazon	107	103	P/P	54 - 123
Oxadiazon	84.1	76.2	P/P	63 - 128
Parathion Ethyl	106	89.3	P/P	72 - 111
Parathion Methyl	110	90.7	P/P	74 - 126
Pendimethalin	98.3	86.1	P/P	61 - 131
Phorate	67.4	82.7	P/P	51 - 115
Prodiamine	61.4	55.5	P/P	38 - 144
Prometon	92.3	80.5	P/P	54 - 119
Prometryn	93.8	83.5	P/P	63 - 120
Simazine	104	96.7	P/P	75 - 126
Tebuconazole	52.3	52.8	P/P	20 - 119
Terbufos	102	96.3	P/P	64 - 116
Terbutylazine	88.4	80.1	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P372823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	45.2	44.1	P/P	20 - 93.0
Alpha-BHC	89.5	91.5	P/P	55 - 133
Alpha-Chlordane	80.0	78.2	P/P	58 - 112
Beta-BHC	98.1	97.9	P/P	54 - 168
Bifenthrin	91.8	89.0	P/P	30 - 134
Carbophenothion	75.1	84.9	P/P	26 - 147
Chlorothalonil	90.3	102	P/P	20 - 155
Cis-Nonachlor	84.4	83.8	P/P	54 - 115
Cypermethrin	94.8	94.7	P/P	40 - 137
DDD-p,p'	88.2	87.6	P/P	65 - 129
DDE-p,p'	80.6	79.0	P/P	57 - 116
DDT-p,p'	85.1	85.4	P/P	53 - 133
Delta-BHC	102	112	P/P	59 - 178
Dicofol	101	115	P/P	24 - 138
Dieldrin	87.3	86.0	P/P	60 - 120
Endosulfan I	86.9	86.6	P/P	64 - 118
Endosulfan II	93.5	90.0	P/P	58 - 142
Endosulfan Sulfate	97.8	100	P/P	60 - 127
Endrin	88.3	89.4	P/P	59 - 122
Endrin Aldehyde	88.4	88.4	P/P	49 - 132
Endrin Ketone	102	98.1	P/P	64 - 121
Ethalfuralin	93.8	88.8	P/P	60 - 126
Gamma-BHC	98.2	85.2	P/P	57 - 154
Gamma-Chlordane	77.1	76.0	P/P	56 - 110
Heptachlor	66.9	66.9	P/P	46 - 96.0
Heptachlor Epoxide	82.9	81.3	P/P	61 - 112
Hexachlorobenzene	79.2	77.7	P/P	44 - 98.0
Methoxychlor	101	100	P/P	63 - 134
Mirex	79.1	77.5	P/P	45 - 100
Permethrin	87.4	86.2	P/P	53 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P372823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trans-Nonachlor	81.5	80.5	P/P	47 - 110
Trifluralin	89.6	85.7	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P372823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	83.5	87.2	P/P	43 - 128
Toxaphene	78.3	80.1	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P372737

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	90.9		P	40 - 160
Aldicarb	88.4		P	30 - 160
Aldicarb Sulfone	87.0		P	40 - 160
Aldicarb Sulfoxide	81.6		P	40 - 160
Carbaryl	65.9		P	40 - 160
Carbofuran	79.6		P	40 - 160
Methiocarb	76.5		P	40 - 160
Methomyl	80.3		P	40 - 160
Oxamyl	84.8		P	40 - 160
Propoxur	77.9		P	40 - 160

Reference Method: EPA 8321B
Batch ID: P372770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	104		P	40 - 150
AMPA	111		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	88.0		P	40 - 150
Glyphosate	111		P	40 - 140
Sucralose	98.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P372798

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	127		P	40 - 160
Acetaminophen	67.3		P	30 - 160
Acetamiprid	82.9		P	40 - 160
Afidopyropen	75.4		P	40 - 160
Bentazon	70.7		P	30 - 160
Benzovindiflupyr	86.6		P	40 - 160
Carbamazepine	94.3		P	40 - 160
Clothianidin	77.1		P	40 - 160
Dinotefuran	77.4		P	40 - 160
Diuron	87.2		P	40 - 160
Fenuron	93.8		P	40 - 160
Fluridone	85.4		P	40 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P372798

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hydrocodone	90.8		P	40 - 160
Ibuprofen	83.0		P	30 - 160
Imazapyr	86.7		P	40 - 160
Imidacloprid	95.4		P	40 - 160
Linuron	64.6		P	40 - 160
Mandestrobin	81.6		P	40 - 160
MCPP	95.6		P	40 - 160
Naproxen	71.8		P	40 - 160
Primidone	88.4		P	40 - 160
Pyraclostrobin	81.4		P	30 - 160
Thiamethoxam	90.3		P	40 - 160
Tolfenpyrad	51.0		P	40 - 160
Triclopyr	93.9		P	30 - 160

Reference Method: SM 2120 B
Batch ID: P372685

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.4		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P372889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P372894

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

Reference Method: SM 5310 B-00
Batch ID: P372968

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129032	Barium	102		P	80 - 120
2129032	Calcium	98.8		P	80 - 120
2129032	Iron	102		P	80 - 120
2129032	Magnesium	101		P	80 - 120
2129032	Potassium	105		P	80 - 120
2129032	Sodium	99.8		P	80 - 120
2129032	Zinc	97.5		P	80 - 120
2129218	Barium	104	104	P/P	80 - 120
2129218	Calcium	102	106	P/P	80 - 120
2129218	Iron	104	107	P/P	80 - 120
2129218	Magnesium	105	110	P/P	80 - 120
2129218	Potassium	104	108	P/P	80 - 120
2129218	Sodium	95.3	98.4	P/P	80 - 120
2129218	Zinc	101	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129032	Aluminum	98.6		P	80 - 120
2129032	Antimony	106		P	80 - 120
2129032	Arsenic	104		P	80 - 120
2129032	Boron	94.5		P	80 - 120
2129032	Cadmium	103		P	80 - 120
2129032	Chromium	95.7		P	80 - 120
2129032	Copper	96.1		P	80 - 120
2129032	Lead	103		P	80 - 120
2129032	Nickel	93.1		P	80 - 120
2129032	Selenium	88.6		P	80 - 120
2129032	Silver	106		P	80 - 120
2129032	Thallium	108		P	80 - 120
2129218	Aluminum	95.0	95.9	P/P	80 - 120
2129218	Antimony	102	102	P/P	80 - 120
2129218	Arsenic	101	101	P/P	80 - 120
2129218	Boron	92.6	94.0	P/P	80 - 120
2129218	Cadmium	99.2	99.6	P/P	80 - 120
2129218	Chromium	95.0	94.5	P/P	80 - 120
2129218	Copper	99.7	93.8	P/P	80 - 120
2129218	Lead	100	100	P/P	80 - 120
2129218	Nickel	92.6	94.0	P/P	80 - 120
2129218	Selenium	84.7	85.4	P/P	80 - 120
2129218	Silver	103	103	P/P	80 - 120
2129218	Thallium	102	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373388

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129056	Chloride	98.3		P	90 - 110
2129206	Chloride	102		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129056	Sulfate	96.3		P	90 - 110
2129206	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129171	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129723	Kjeldahl Nitrogen	99.1	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372996

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129171	Kjeldahl Nitrogen	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129040	NO2NO3-N	97.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372905

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129040	Total-P	95.1	92.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129063	O-Phosphate-P	93.9	96.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P372696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129047	Acetochlor	97.1	97.0	P/P	63 - 129
2129047	Alachlor	104	102	P/P	65 - 127
2129047	Ametryn	83.2	86.7	P/P	40 - 164
2129047	Atrazine Desethyl	72.0	98.2	P/P	14 - 157
2129047	Azinphos Methyl	99.6	91.3	P/P	49 - 180
2129047	Butylate	58.3	49.9	P/P	10 - 94.0
2129047	Chlorpyrifos Ethyl	118	117	P/P	58 - 123
2129047	Chlorpyrifos Methyl	98.5	98.0	P/P	58 - 125
2129047	Cyanazine	171	170	P/P	24 - 253

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P372696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129047	Demeton	188	180	F/F	25 - 149
2129047	Diazinon	96.0	99.0	P/P	59 - 144
2129047	Dimethenamid	95.2	89.9	P/P	46 - 139
2129047	Disulfoton	97.5	93.7	P/P	54 - 132
2129047	Dithiopyr	91.1	91.0	P/P	64 - 130
2129047	EPTC	53.0	47.9	P/P	10 - 92.0
2129047	Ethion	90.0	73.4	P/P	30 - 148
2129047	Ethoprop	102	96.8	P/P	50 - 130
2129047	Fenamiphos	85.9	89.4	P/P	49 - 142
2129047	Fipronil	101	98.7	P/P	46 - 140
2129047	Fipronil Desulfinyf	70.0	68.4	P/P	30 - 121
2129047	Fipronil Sulfide	101	100	P/P	31 - 136
2129047	Fonofos	105	102	P/P	55 - 129
2129047	Hexazinone	121	121	P/P	56 - 141
2129047	Malathion	103	101	P/P	56 - 135
2129047	Mevinphos	104	93.1	P/P	33 - 131
2129047	Molinate	70.3	63.2	P/P	14 - 98.0
2129047	Norflurazon	111	99.6	P/P	34 - 136
2129047	Oxadiazon	88.7	88.0	P/P	67 - 116
2129047	Parathion Ethyl	131	128	F/F	66 - 118
2129047	Parathion Methyl	121	124	P/P	64 - 136
2129047	Pendimethalin	123	129	P/P	59 - 144
2129047	Phorate	81.8	82.7	P/P	42 - 130
2129047	Prodiamine	62.2	61.6	P/P	42 - 148
2129047	Prometon	106	127	P/P	59 - 134
2129047	Prometryn	92.4	94.9	P/P	54 - 135
2129047	Simazine	129	133	P/P	53 - 156
2129047	Tebuconazole	76.6	61.8	P/P	10 - 131
2129047	Terbufos	104	109	P/P	57 - 131
2129047	Terbutylazine	91.5	89.9	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P372823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129455	Aldrin	52.6	50.9	P/P	25 - 92.0
2129455	Alpha-BHC	98.8	98.3	P/P	48 - 150
2129455	Alpha-Chlordane	77.2	76.5	P/P	50 - 115
2129455	Beta-BHC	103	101	P/P	39 - 184
2129455	Bifenthrin	92.9	94.6	P/P	46 - 116
2129455	Carbophenothion	84.8	95.8	P/P	27 - 180
2129455	Chlorothalonil	109	107	P/P	10 - 216
2129455	Cis-Nonachlor	81.6	81.5	P/P	55 - 112
2129455	Cypermethrin	96.4	101	P/P	40 - 153
2129455	DDD-p,p'	82.9	84.8	P/P	53 - 128
2129455	DDE-p,p'	75.9	79.8	P/P	48 - 116
2129455	DDT-p,p'	83.6	84.4	P/P	47 - 128
2129455	Delta-BHC	111	129	P/P	48 - 221
2129455	Dicofol	99.0	104	P/P	10 - 147
2129455	Dieldrin	80.9	80.0	P/P	48 - 128
2129455	Endosulfan I	84.1	83.0	P/P	58 - 126
2129455	Endosulfan II	85.6	88.0	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P372823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129455	Endosulfan Sulfate	94.2	97.2	P/P	56 - 130
2129455	Endrin	84.2	83.8	P/P	50 - 126
2129455	Endrin Aldehyde	85.1	81.3	P/P	12 - 145
2129455	Endrin Ketone	96.0	99.6	P/P	59 - 132
2129455	Ethalfuralin	86.5	89.2	P/P	65 - 122
2129455	Gamma-BHC	87.5	99.0	P/P	40 - 190
2129455	Gamma-Chlordane	74.2	74.7	P/P	50 - 112
2129455	Heptachlor	64.4	64.4	P/P	41 - 98.0
2129455	Heptachlor Epoxide	80.2	80.3	P/P	55 - 117
2129455	Hexachlorobenzene	77.7	78.1	P/P	47 - 91.0
2129455	Methoxychlor	100	101	P/P	55 - 133
2129455	Mirex	78.4	80.3	P/P	44 - 101
2129455	Permethrin	86.9	88.6	P/P	52 - 124
2129455	Trans-Nonachlor	79.5	79.8	P/P	53 - 99.0
2129455	Trifluralin	85.1	88.5	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P372823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129496	Chlordane	103	104	P/P	34 - 136
2129496	Toxaphene	78.1	77.8	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P372737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127962	3-Hydroxycarbofuran	103	96.4	P/P	40 - 160
2127962	Aldicarb	84.1	86.0	P/P	30 - 160
2127962	Aldicarb Sulfone	120	110	P/P	40 - 160
2127962	Aldicarb Sulfoxide	55.9	52.6	P/P	40 - 160
2127962	Carbaryl	59.9	58.1	P/P	40 - 160
2127962	Carbofuran	72.7	70.1	P/P	40 - 160
2127962	Methiocarb	73.8	66.6	P/P	40 - 160
2127962	Methomyl	76.9	72.4	P/P	40 - 160
2127962	Oxamyl	95.3	89.4	P/P	40 - 160
2127962	Propoxur	74.3	68.5	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P372770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129142	Acesulfame K	61.8	66.5	P/P	40 - 150
2129142	AMPA	30.2	40.4	F/P	40 - 150
2129142	Endothall	107	115	P/P	40 - 150
2129142	Glufosinate	65.1	65.5	P/P	40 - 150
2129142	Glyphosate	68.0	68.5	P/P	40 - 140
2129142	Sucralose	89.0	106	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P372798

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129299	2,4-D	106	108	P/P	40 - 160
2129299	Acetamiprid	107	104	P/P	40 - 160
2129299	Afidopyropen	84.1	87.2	P/P	40 - 160
2129299	Bentazon	50.7	55.8	P/P	30 - 160
2129299	Benzovindiflupyr	88.4	87.5	P/P	40 - 160
2129299	Carbamazepine	87.6	85.3	P/P	40 - 160
2129299	Clothianidin	88.7	87.3	P/P	40 - 160
2129299	Dinotefuran	96.0	98.7	P/P	40 - 160
2129299	Diuron	74.9	74.6	P/P	40 - 160
2129299	Fenuron	90.6	91.9	P/P	40 - 160
2129299	Fluridone	84.0	83.2	P/P	40 - 160
2129299	Hydrocodone	107	102	P/P	40 - 160
2129299	Ibuprofen	75.3	72.4	P/P	30 - 160
2129299	Imazapyr	88.9	95.6	P/P	40 - 160
2129299	Linuron	62.8	59.9	P/P	40 - 160
2129299	Mandestrobin	94.6	91.5	P/P	40 - 160
2129299	MCCP	96.1	93.3	P/P	40 - 160
2129299	Naproxen	68.6	73.2	P/P	40 - 160
2129299	Primidone	85.4	95.3	P/P	40 - 160
2129299	Pyraclostrobin	93.8	89.3	P/P	30 - 160
2129299	Thiamethoxam	144	145	P/P	40 - 160
2129299	Tolfenpyrad	59.3	55.3	P/P	40 - 160
2129299	Triclopyr	97.7	84.9	P/P	30 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P372894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129176	Fluoride	97.9	97.2	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P372968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129062	Organic Carbon	103	99.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129061	Turbidity	1.31	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P372820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129218	Barium	0.226	Spike	P	0 - 20
2129218	Calcium	3.79	Spike	P	0 - 20
2129218	Iron	3.18	Spike	P	0 - 20
2129218	Magnesium	4.07	Spike	P	0 - 20
2129218	Potassium	4.34	Spike	P	0 - 20
2129218	Sodium	2.13	Spike	P	0 - 20
2129218	Zinc	0.434	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P372820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129218	Aluminum	0.942	Spike	P	0 - 20
2129218	Antimony	0.348	Spike	P	0 - 20
2129218	Arsenic	0.705	Spike	P	0 - 20
2129218	Boron	1.42	Spike	P	0 - 20
2129218	Cadmium	0.379	Spike	P	0 - 20
2129218	Chromium	0.555	Spike	P	0 - 20
2129218	Copper	6.04	Spike	P	0 - 20
2129218	Lead	0.0968	Spike	P	0 - 20
2129218	Nickel	1.43	Spike	P	0 - 20
2129218	Selenium	0.751	Spike	P	0 - 20
2129218	Silver	0.693	Spike	P	0 - 20
2129218	Thallium	0.635	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129056	Chloride	0.432	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P373390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129056	Sulfate	0.218	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129171	Ammonia-N	0.482	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129723	Kjeldahl Nitrogen	3.45	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129171	Kjeldahl Nitrogen	0.263	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129040	NO2NO3-N	0.216	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372905

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129040	Total-P	1.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129063	O-Phosphate-P	2.22	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P372696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129047	Acetochlor	0.0689	Spike	P	0 - 30
2129047	Alachlor	1.27	Spike	P	0 - 30
2129047	Ametryn	4.12	Spike	P	0 - 30
2129047	Atrazine	2.72	Spike	P	0 - 30
2129047	Atrazine Desethyl	16.7	Spike	P	0 - 30
2129047	Azinphos Methyl	8.78	Spike	P	0 - 30
2129047	Bromacil	3.98	Spike	P	0 - 30
2129047	Butylate	15.5	Spike	P	0 - 30
2129047	Chlorpyrifos Ethyl	0.263	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129047	Chlorpyrifos Methyl	0.585	Spike	P	0 - 30
2129047	Cyanazine	0.951	Spike	P	0 - 30
2129047	Demeton	4.68	Spike	P	0 - 30
2129047	Diazinon	3.12	Spike	P	0 - 30
2129047	Dimethenamid	5.64	Spike	P	0 - 30
2129047	Disulfoton	3.99	Spike	P	0 - 30
2129047	Dithiopyr	0.118	Spike	P	0 - 30
2129047	EPTC	10.1	Spike	P	0 - 30
2129047	Ethion	20.3	Spike	P	0 - 30
2129047	Ethoprop	5.62	Spike	P	0 - 30
2129047	Fenamiphos	3.96	Spike	P	0 - 30
2129047	Fipronil	1.87	Spike	P	0 - 30
2129047	Fipronil Desulfinyl	2.36	Spike	P	0 - 30
2129047	Fipronil Sulfide	0.444	Spike	P	0 - 30
2129047	Fipronil Sulfone	4.88	Spike	P	0 - 30
2129047	Fonofos	2.53	Spike	P	0 - 30
2129047	Hexazinone	0.412	Spike	P	0 - 30
2129047	Malathion	2.13	Spike	P	0 - 30
2129047	Metalaxyl	1.54	Spike	P	0 - 30
2129047	Metolachlor	2.24	Spike	P	0 - 30
2129047	Metribuzin	20.4	Spike	P	0 - 30
2129047	Mevinphos	11.5	Spike	P	0 - 30
2129047	Molinate	10.7	Spike	P	0 - 30
2129047	Norflurazon	9.03	Spike	P	0 - 30
2129047	Oxadiazon	0.791	Spike	P	0 - 30
2129047	Parathion Ethyl	2.35	Spike	P	0 - 30
2129047	Parathion Methyl	2.24	Spike	P	0 - 30
2129047	Pendimethalin	4.42	Spike	P	0 - 30
2129047	Phorate	1.11	Spike	P	0 - 30
2129047	Prodiamine	0.883	Spike	P	0 - 30
2129047	Prometon	17.7	Spike	P	0 - 30
2129047	Prometryn	2.67	Spike	P	0 - 30
2129047	Simazine	3.49	Spike	P	0 - 30
2129047	Tebuconazole	17.8	Spike	P	0 - 30
2129047	Terbufos	4.13	Spike	P	0 - 30
2129047	Terbuthylazine	1.69	Spike	P	0 - 30
LFB	Acetochlor	9.33	LCS	P	0 - 30
LFB	Alachlor	4.76	LCS	P	0 - 30
LFB	Ametryn	1.52	LCS	P	0 - 30
LFB	Atrazine	2.14	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.8	LCS	P	0 - 30
LFB	Azinphos Methyl	19.8	LCS	P	0 - 30
LFB	Bromacil	9.06	LCS	P	0 - 30
LFB	Butylate	10.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	8.08	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.12	LCS	P	0 - 30
LFB	Cyanazine	12.4	LCS	P	0 - 30
LFB	Demeton	9.41	LCS	P	0 - 30
LFB	Diazinon	13.9	LCS	P	0 - 30
LFB	Dimethenamid	7.45	LCS	P	0 - 30
LFB	Disulfoton	10.2	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	6.47	LCS	P	0 - 30
LFB	EPTC	5.91	LCS	P	0 - 30
LFB	Ethion	5.73	LCS	P	0 - 30
LFB	Ethoprop	8.11	LCS	P	0 - 30
LFB	Fenamiphos	1.60	LCS	P	0 - 30
LFB	Fipronil	7.80	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	12.0	LCS	P	0 - 30
LFB	Fipronil Sulfide	21.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.52	LCS	P	0 - 30
LFB	Fonofos	6.13	LCS	P	0 - 30
LFB	Hexazinone	8.33	LCS	P	0 - 30
LFB	Malathion	6.14	LCS	P	0 - 30
LFB	Metalaxyl	7.79	LCS	P	0 - 30
LFB	Metolachlor	12.5	LCS	P	0 - 30
LFB	Metribuzin	17.0	LCS	P	0 - 30
LFB	Mevinphos	6.19	LCS	P	0 - 30
LFB	Molinate	7.20	LCS	P	0 - 30
LFB	Norflurazon	3.98	LCS	P	0 - 30
LFB	Oxadiazon	9.83	LCS	P	0 - 30
LFB	Parathion Ethyl	17.3	LCS	P	0 - 30
LFB	Parathion Methyl	19.0	LCS	P	0 - 30
LFB	Pendimethalin	13.2	LCS	P	0 - 30
LFB	Phorate	20.3	LCS	P	0 - 30
LFB	Prodiamine	10.2	LCS	P	0 - 30
LFB	Prometon	13.7	LCS	P	0 - 30
LFB	Prometryn	11.6	LCS	P	0 - 30
LFB	Simazine	6.87	LCS	P	0 - 30
LFB	Tebuconazole	0.945	LCS	P	0 - 30
LFB	Terbufos	5.58	LCS	P	0 - 30
LFB	Terbutylazine	9.78	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P372823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129455	Aldrin	3.33	Spike	P	0 - 30
2129455	Alpha-BHC	0.579	Spike	P	0 - 30
2129455	Alpha-Chlordane	0.993	Spike	P	0 - 30
2129455	Beta-BHC	1.91	Spike	P	0 - 30
2129455	Bifenthrin	1.75	Spike	P	0 - 30
2129455	Carbophenothion	12.1	Spike	P	0 - 30
2129455	Chlorothalonil	1.65	Spike	P	0 - 30
2129455	Cis-Nonachlor	0.0206	Spike	P	0 - 30
2129455	Cypermethrin	4.68	Spike	P	0 - 30
2129455	DDD-p,p'	2.25	Spike	P	0 - 30
2129455	DDE-p,p'	4.99	Spike	P	0 - 30
2129455	DDT-p,p'	1.02	Spike	P	0 - 30
2129455	Delta-BHC	15.6	Spike	P	0 - 30
2129455	Dicofol	4.93	Spike	P	0 - 30
2129455	Dieldrin	0.865	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P372823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129455	Endosulfan I	1.39	Spike	P	0 - 30
2129455	Endosulfan II	2.70	Spike	P	0 - 30
2129455	Endosulfan Sulfate	3.11	Spike	P	0 - 30
2129455	Endrin	0.409	Spike	P	0 - 30
2129455	Endrin Aldehyde	4.59	Spike	P	0 - 30
2129455	Endrin Ketone	3.64	Spike	P	0 - 30
2129455	Ethalfuralin	3.04	Spike	P	0 - 30
2129455	Gamma-BHC	12.4	Spike	P	0 - 30
2129455	Gamma-Chlordane	0.657	Spike	P	0 - 30
2129455	Heptachlor	0.0114	Spike	P	0 - 30
2129455	Heptachlor Epoxide	0.202	Spike	P	0 - 30
2129455	Hexachlorobenzene	0.587	Spike	P	0 - 30
2129455	Methoxychlor	1.23	Spike	P	0 - 30
2129455	Mirex	2.43	Spike	P	0 - 30
2129455	Permethrin	1.95	Spike	P	0 - 30
2129455	Trans-Nonachlor	0.407	Spike	P	0 - 30
2129455	Trifluralin	3.93	Spike	P	0 - 30
LFB	Aldrin	2.56	LCS	P	0 - 30
LFB	Alpha-BHC	2.24	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.38	LCS	P	0 - 30
LFB	Beta-BHC	0.201	LCS	P	0 - 30
LFB	Bifenthrin	3.05	LCS	P	0 - 30
LFB	Carbophenothion	12.3	LCS	P	0 - 30
LFB	Chlorothalonil	12.6	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.608	LCS	P	0 - 30
LFB	Cypermethrin	0.103	LCS	P	0 - 30
LFB	DDD-p,p'	0.727	LCS	P	0 - 30
LFB	DDE-p,p'	2.01	LCS	P	0 - 30
LFB	DDT-p,p'	0.407	LCS	P	0 - 30
LFB	Delta-BHC	8.79	LCS	P	0 - 30
LFB	Dicofol	12.4	LCS	P	0 - 30
LFB	Dieldrin	1.51	LCS	P	0 - 30
LFB	Endosulfan I	0.412	LCS	P	0 - 30
LFB	Endosulfan II	3.82	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.16	LCS	P	0 - 30
LFB	Endrin	1.29	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.0373	LCS	P	0 - 30
LFB	Endrin Ketone	4.25	LCS	P	0 - 30
LFB	Ethalfuralin	5.41	LCS	P	0 - 30
LFB	Gamma-BHC	14.2	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.40	LCS	P	0 - 30
LFB	Heptachlor	0.00847	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.95	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.96	LCS	P	0 - 30
LFB	Methoxychlor	0.516	LCS	P	0 - 30
LFB	Mirex	2.14	LCS	P	0 - 30
LFB	Permethrin	1.35	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.23	LCS	P	0 - 30
LFB	Trifluralin	4.41	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P372823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129496	Chlordane	0.217	Spike	P	0 - 30
2129496	Toxaphene	0.394	Spike	P	0 - 30
LFB	Chlordane	4.34	LCS	P	0 - 30
LFB	Toxaphene	2.27	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127962	3-Hydroxycarbofuran	6.44	Spike	P	0 - 30
2127962	Aldicarb	2.20	Spike	P	0 - 30
2127962	Aldicarb Sulfone	9.35	Spike	P	0 - 30
2127962	Aldicarb Sulfoxide	6.11	Spike	P	0 - 30
2127962	Carbaryl	3.10	Spike	P	0 - 30
2127962	Carbofuran	3.53	Spike	P	0 - 30
2127962	Methiocarb	10.3	Spike	P	0 - 30
2127962	Methomyl	5.94	Spike	P	0 - 30
2127962	Oxamyl	6.45	Spike	P	0 - 30
2127962	Propoxur	8.09	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129142	Acesulfame K	7.28	Spike	P	0 - 30
2129142	AMPA	10.5	Spike	P	0 - 30
2129142	Endothall	7.55	Spike	P	0 - 30
2129142	Glufosinate	0.614	Spike	P	0 - 30
2129142	Glyphosate	0.246	Spike	P	0 - 30
2129142	Sucralose	15.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P372798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129299	2,4-D	2.26	Spike	P	0 - 30
2129299	Acetaminophen	1.63	Spike	P	0 - 30
2129299	Acetamiprid	2.65	Spike	P	0 - 30
2129299	Afidopyropen	3.58	Spike	P	0 - 30
2129299	Bentazon	4.06	Spike	P	0 - 30
2129299	Benzovindiflupyr	0.983	Spike	P	0 - 30
2129299	Carbamazepine	2.55	Spike	P	0 - 30
2129299	Clothianidin	1.57	Spike	P	0 - 30
2129299	Dinotefuran	2.72	Spike	P	0 - 30
2129299	Diuron	0.325	Spike	P	0 - 30
2129299	Fenuron	1.43	Spike	P	0 - 30
2129299	Fluridone	0.916	Spike	P	0 - 30
2129299	Hydrocodone	4.91	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P372798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129299	Ibuprofen	4.00	Spike	P	0 - 30
2129299	Imazapyr	5.57	Spike	P	0 - 30
2129299	Imidacloprid	1.85	Spike	P	0 - 30
2129299	Linuron	4.71	Spike	P	0 - 30
2129299	Mandestrobin	3.25	Spike	P	0 - 30
2129299	MCCP	2.99	Spike	P	0 - 30
2129299	Naproxen	6.52	Spike	P	0 - 30
2129299	Primidone	11.0	Spike	P	0 - 30
2129299	Pyraclostrobin	4.98	Spike	P	0 - 30
2129299	Thiamethoxam	1.12	Spike	P	0 - 30
2129299	Tolfenpyrad	6.93	Spike	P	0 - 30
2129299	Triclopyr	14.0	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P372685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129061	Color (true)	0.229	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P372889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129176	Total Alkalinity	0.704	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P373146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129111	TDS	1.10	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P372894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129176	Fluoride	0.487	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P372968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129062	Organic Carbon	2.62	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2129141
Field Sample ID: G3SE0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	73.0	P	30 - 160

Lab Sample ID: 2129142
Field Sample ID: G3SE0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	125	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.4	P	30 - 160
EPA 8321B	Bentazon-d7	62.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.9	P	30 - 160
EPA 8321B	Diuron-d6	75.6	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.5	P	30 - 160
EPA 8321B	Primidone-d5	96.5	P	30 - 160
EPA 8321B	Sucralose-d6	43.8	P	30 - 160
EPA 8321B	Sucralose-d6	43.8	P	30 - 160

Lab Sample ID: 2129143
Field Sample ID: FB_10162019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	49.8	P	30 - 160
EPA 8321B	Bentazon-d7	53.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.9	P	30 - 160
EPA 8321B	Diuron-d6	79.2	P	30 - 160
EPA 8321B	Endothall-d6	130	P	30 - 160
EPA 8321B	Endothall-d6	130	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.6	P	30 - 160
EPA 8321B	Primidone-d5	89.1	P	30 - 160
EPA 8321B	Sucralose-d6	45.0	P	30 - 160
EPA 8321B	Sucralose-d6	45.0	P	30 - 160

Lab Sample ID: 2129148
Field Sample ID: G3SE0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.7	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	71.4	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	68.4	P	30 - 103
EPA 8276	PCNB	106	P	37 - 143

Lab Sample ID: 2129149
Field Sample ID: G3SE0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	102	P	68 - 130

Quality Assurance Report Surrogates

Lab Sample ID: 2129149
Field Sample ID: G3SE0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Terbufos-d10	104	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95040

Included Lab Sample IDs: 2129111, 2129114

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: A95042

Included Lab Sample IDs: 2129111, 2129114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	98.7	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95048

Included Lab Sample IDs: 2129113, 2129116

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95097

Included Lab Sample IDs: 2129112, 2129115

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

Reference Method: EPA 8321B

Run ID: A95108

Included Lab Sample IDs: 2129142, 2129143

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.3	63.9	P/P	60 - 160
Endothall	90.3	96.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95110

Included Lab Sample IDs: 2129141

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	101	102	P/P	60 - 150
Aldicarb	110	96.8	P/P	60 - 150
Aldicarb Sulfone	106	109	P/P	50 - 150
Aldicarb Sulfoxide	99.8	97.2	P/P	50 - 150
Carbaryl	99.9	99.6	P/P	60 - 150
Carbofuran	101	104	P/P	50 - 150
Methiocarb	109	108	P/P	50 - 150
Methomyl	104	98.6	P/P	50 - 150
Oxamyl	100	95.6	P/P	50 - 150
Propoxur	101	99.1	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A95133

Included Lab Sample IDs: 2129111, 2129114

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A95133

Included Lab Sample IDs: 2129111, 2129114

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95158

Included Lab Sample IDs: 2129150, 2129151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	102	P/P	90 - 110
Calcium	98.4	99.7	P/P	90 - 110
Calcium	99.5	99.4	P/P	95 - 105
Iron	98.4	100	P/P	90 - 110
Iron	98.9	99.1	P/P	95 - 105
Magnesium	100	100	P/P	95 - 105
Magnesium	99.1	101	P/P	90 - 110
Potassium	98.3	99.2	P/P	90 - 110
Potassium	98.6	98.5	P/P	95 - 105
Sodium	95.5	96.1	P/P	90 - 110
Sodium	96.7	96.5	P/P	95 - 105
Zinc	102	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A95164

Included Lab Sample IDs: 2129112, 2129115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95172

Included Lab Sample IDs: 2129112, 2129115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.6	P/P	90 - 110
Ammonia-N	99.6	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A95190

Included Lab Sample IDs: 2129151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	105	P/P	95 - 105
Zinc	102	105	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95205

Included Lab Sample IDs: 2129112

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	98.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95233

Included Lab Sample IDs: 2129142, 2129143

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.1	97.8	P/P	50 - 150
Acetaminophen	99.0	94.8	P/P	60 - 160
Acetamiprid	105	103	P/P	50 - 150
Afidopyropen	96.3	101	P/P	50 - 150
Bentazon	99.5	97.5	P/P	50 - 160
Benzovindiflupyr	107	106	P/P	50 - 150
Carbamazepine	106	106	P/P	60 - 150
Clothianidin	106	99.8	P/P	60 - 150
Dinotefuran	97.2	94.1	P/P	50 - 150
Diuron	107	105	P/P	60 - 150
Fenuron	103	104	P/P	60 - 150
Fluridone	105	99.6	P/P	60 - 160
Hydrocodone	95.2	108	P/P	60 - 150
Ibuprofen	101	79.3	P/P	50 - 160
Imazapyr	91.0	95.3	P/P	50 - 150
Imidacloprid	98.5	99.3	P/P	60 - 150
Linuron	101	94.7	P/P	60 - 150
Mandestrobin	106	106	P/P	50 - 150
MCPP	90.7	88.4	P/P	50 - 150
Naproxen	111	91.3	P/P	50 - 160
Primidone	82.0	99.8	P/P	60 - 150
Pyraclostrobin	102	105	P/P	60 - 150
Thiamethoxam	104	97.9	P/P	50 - 150
Tolfenpyrad	103	99.0	P/P	60 - 150
Triclopyr	98.7	97.7	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95245

Included Lab Sample IDs: 2129112

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95246

Included Lab Sample IDs: 2129115

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A95278

Included Lab Sample IDs: 2129115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.8	96.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95307

Included Lab Sample IDs: 2129111, 2129114

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

Reference Method: EPA 8276

Run ID: A95330

Included Lab Sample IDs: 2129148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	104		P	80 - 120
Toxaphene	94.8		P	80 - 120

Reference Method: EPA 8270E

Run ID: A95376

Included Lab Sample IDs: 2129148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	91.6		P	80 - 120
Alpha-BHC	95.4		P	80 - 120
Alpha-Chlordane	95.5		P	80 - 120
Beta-BHC	91.3		P	80 - 120
Bifenthrin	99.5		P	80 - 120
Carbophenothion	85.7		P	80 - 120
Chlorothalonil	84.1		P	80 - 120
Cis-Nonachlor	95.2		P	80 - 120
Cypermethrin	85.1		P	80 - 120
DDD-p,p'	99.5		P	80 - 120
DDE-p,p'	97.5		P	80 - 120
DDT-p,p'	99.0		P	80 - 120
Delta-BHC	89.6		P	80 - 120
Dicofol	86.4		P	80 - 120
Dieldrin	96.8		P	80 - 120
Endosulfan I	91.5		P	80 - 120
Endosulfan II	90.1		P	80 - 120
Endosulfan Sulfate	97.1		P	80 - 120
Endrin	93.8		P	80 - 120
Endrin Aldehyde	94.3		P	80 - 120
Endrin Ketone	101		P	80 - 120
Ethalfuralin	101		P	80 - 120
Gamma-BHC	84.7		P	80 - 120
Gamma-Chlordane	94.7		P	80 - 120
Heptachlor	95.9		P	80 - 120
Heptachlor Epoxide	95.1		P	80 - 120
Hexachlorobenzene	99.0		P	80 - 120
Methoxychlor	99.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95376
Included Lab Sample IDs: 2129148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mirex	98.4		P	80 - 120
Permethrin	94.6		P	80 - 120
Trans-Nonachlor	94.7		P	80 - 120
Trifluralin	98.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A95396
Included Lab Sample IDs: 2129149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	99.6		P	80 - 120
Atrazine Desethyl	90.3		P	80 - 120
Azinphos Methyl	96.2		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	96.9		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	97.5		P	80 - 120
Cyanazine	81.9		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	103		P	80 - 120
Dimethenamid	105		P	80 - 120
Disulfoton	99.5		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	101		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	96.8		P	80 - 120
Fipronil	105		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	122*		F	80 - 120
Fipronil Sulfone	97.9		P	80 - 120
Fonofos	98.7		P	80 - 120
Hexazinone	98.3		P	80 - 120
Malathion	93.9		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	111		P	80 - 120
Metribuzin	72.3*		F	80 - 120
Mevinphos	103		P	80 - 120
Molinate	98.7		P	80 - 120
Norflurazon	105		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	100		P	80 - 120
Parathion Methyl	96.3		P	80 - 120
Pendimethalin	98.1		P	80 - 120
Phorate	105		P	80 - 120
Prodiamine	97.2		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	95.7		P	80 - 120
Simazine	98.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A95396
Included Lab Sample IDs: 2129149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	101		P	80 - 120
Terbufos	100		P	80 - 120
Terbuthylazine	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A95399
Included Lab Sample IDs: 2129149

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A95467
Included Lab Sample IDs: 2129150, 2129151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	100	99.9	P/P	90 - 110
Antimony	99.4	100	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Cadmium	99.5	100	P/P	90 - 110
Lead	99.1	99.4	P/P	90 - 110
Lead	99.4	99.2	P/P	90 - 110
Selenium	96.0	97.0	P/P	90 - 110
Selenium	98.4	96.0	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Thallium	95.3	96.1	P/P	90 - 110
Thallium	96.2	95.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A95530
Included Lab Sample IDs: 2129150, 2129151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	92.9	93.7	P/P	90 - 110
Aluminum	94.3	92.9	P/P	90 - 110
Boron	90.3	90.6	P/P	90 - 110
Boron	91.4	90.3	P/P	90 - 110
Chromium	94.2	95.5	P/P	90 - 110
Chromium	95.5	95.1	P/P	90 - 110
Nickel	93.9	94.0	P/P	90 - 110
Nickel	94.0	93.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A95562
Included Lab Sample IDs: 2129150, 2129151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	94.3	96.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A95562

Included Lab Sample IDs: 2129150, 2129151

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	95.1	94.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A95766

Included Lab Sample IDs: 2129142, 2129143

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	111	117	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95792

Included Lab Sample IDs: 2129142, 2129143

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	89.4	87.4	P/P	60 - 160
Glufosinate	107	99.3	P/P	60 - 160
Glyphosate	107	106	P/P	60 - 160

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							1.31	
EPA 200.7 Rev. 4.4	Barium	106		102	104	104			0.226
	Calcium	105		98.8	102	106			3.79
	Iron	103		102	104	107			3.18
	Magnesium	107		101	105	110			4.07
	Potassium	98.9		105	104	108			4.34
	Sodium	101		99.8	95.3	98.4			2.13
	Zinc	103		97.5	101	101			0.434
EPA 200.8 Rev. 5.4	Aluminum	99.9		98.6	95.0	95.9			0.942
	Antimony	102		106	102	102			0.348
	Arsenic	99.7		104	101	101			0.705
	Boron	94.7		94.5	92.6	94.0			1.42
	Cadmium	97.9		103	99.2	99.6			0.379
	Chromium	98.0		95.7	95.0	94.5			0.555
	Copper	95.4		96.1	99.7	93.8			6.04
	Lead	99.4		103	100	100			0.0968
	Nickel	97.1		93.1	92.6	94.0			1.43
	Selenium	91.3		88.6	84.7	85.4			0.751
	Silver	102		106	103	103			0.693
	Thallium	102		108	102	103			0.635
EPA 300.0 Rev. 2.1	Chloride	103		98.3	102			0.432	
	Sulfate	103		96.3	102			0.218	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8		102	102				0.482
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.8		99.1	104				3.45
	Kjeldahl Nitrogen	105		104	104				0.263
EPA 353.2 Rev. 2.0	NO2NO3-N	100		97.8					0.216
EPA 365.1 Rev. 2.0	Total-P	96.6		95.1	92.4				1.42
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		93.9	96.1				2.22
EPA 8270E	Acetochlor	103	93.9	97.1	97.0		9.33		0.0689
	Alachlor	104	99.1	104	102		4.76		1.27
	Aldrin	45.2	44.1	52.6	50.9		2.56		3.33
	Alpha-BHC	89.5	91.5	98.8	98.3		2.24		0.579
	Alpha-Chlordane	80.0	78.2	77.2	76.5		2.38		0.993
	Ametryn	82.1	80.9	83.2	86.7		1.52		4.12
	Atrazine	95.1	93.0				2.14		2.72
	Atrazine Desethyl	87.0	78.1	72.0	98.2		10.8		16.7
	Azinphos Methyl	89.1	109	99.6	91.3		19.8		8.78
	Beta-BHC	98.1	97.9	103	101		0.201		1.91
	Bifenthrin	91.8	89.0	92.9	94.6		3.05		1.75
	Bromacil	80.2	87.8				9.06		3.98
	Butylate	62.9	69.6	58.3	49.9		10.1		15.5
	Carbophenothion	75.1	84.9	84.8	95.8		12.3		12.1
	Chlorothalonil	90.3	102	109	107		12.6		1.65
	Chlorpyrifos Ethyl	97.5	106	118	117		8.08		0.263
	Chlorpyrifos Methyl	97.1	90.4	98.5	98.0		7.12		0.585
	Cis-Nonachlor	84.4	83.8	81.6	81.5		0.608		0.0206
	Cyanazine	139	123	171	170		12.4		0.951
	Cypermethrin	94.8	94.7	96.4	101		0.103		4.68
	DDD-p,p'	88.2	87.6	82.9	84.8		0.727		2.25
	DDE-p,p'	80.6	79.0	75.9	79.8		2.01		4.99
	DDT-p,p'	85.1	85.4	83.6	84.4		0.407		1.02
	Delta-BHC	102	112	111	129		8.79		15.6
	Demeton	174	159	188	180		9.41		4.68
	Diazinon	97.6	84.9	96.0	99.0		13.9		3.12

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Dicofol	101	115	99.0	104	12.4		4.93
	Dieldrin	87.3	86.0	80.9	80.0	1.51		0.865
	Dimethenamid	89.4	83.0	95.2	89.9	7.45		5.64
	Disulfoton	94.3	85.2	97.5	93.7	10.2		3.99
	Dithiopyr	93.0	87.2	91.1	91.0	6.47		0.118
	Endosulfan I	86.9	86.6	84.1	83.0	0.412		1.39
	Endosulfan II	93.5	90.0	85.6	88.0	3.82		2.70
	Endosulfan Sulfate	97.8	100	94.2	97.2	2.16		3.11
	Endrin	88.3	89.4	84.2	83.8	1.29		0.409
	Endrin Aldehyde	88.4	88.4	85.1	81.3	0.0373		4.59
	Endrin Ketone	102	98.1	96.0	99.6	4.25		3.64
	EPTC	63.4	59.7	53.0	47.9	5.91		10.1
	Ethalfuralin	93.8	88.8	86.5	89.2	5.41		3.04
	Ethion	56.5	53.4	90.0	73.4	5.73		20.3
	Ethoprop	94.5	87.1	102	96.8	8.11		5.62
	Fenamiphos	86.5	87.9	85.9	89.4	1.60		3.96
	Fipronil	91.5	84.7	101	98.7	7.80		1.87
	Fipronil Desulfinyl	68.1	60.4	70.0	68.4	12.0		2.36
	Fipronil Sulfide	105	85.0	101	100	21.0		0.444
	Fipronil Sulfone	90.1	82.8			8.52		4.88
	Fonofos	95.7	90.0	105	102	6.13		2.53
	Gamma-BHC	98.2	85.2	87.5	99.0	14.2		12.4
	Gamma-Chlordane	77.1	76.0	74.2	74.7	1.40		0.657
	Heptachlor	66.9	66.9	64.4	64.4	0.0084		0.0114
	Heptachlor Epoxide	82.9	81.3	80.2	80.3	1.95		0.202
	Hexachlorobenzene	79.2	77.7	77.7	78.1	1.96		0.587
	Hexazinone	111	102	121	121	8.33		0.412
	Malathion	92.6	87.1	103	101	6.14		2.13
	Metalaxyl	105	96.8			7.79		1.54
	Methoxychlor	101	100	100	101	0.516		1.23
	Metolachlor	107	94.4			12.5		2.24
	Metribuzin	177	149			17.0		20.4
	Mevinphos	90.7	96.5	104	93.1	6.19		11.5
	Mirex	79.1	77.5	78.4	80.3	2.14		2.43
	Molinate	65.9	70.8	70.3	63.2	7.20		10.7
	Norflurazon	103	107	111	99.6	3.98		9.03
	Oxadiazon	76.2	84.1	88.7	88.0	9.83		0.791
	Parathion Ethyl	89.3	106	131	128	17.3		2.35
	Parathion Methyl	90.7	110	121	124	19.0		2.24
	Pendimethalin	86.1	98.3	123	129	13.2		4.42
	Permethrin	87.4	86.2	86.9	88.6	1.35		1.95
	Phorate	82.7	67.4	81.8	82.7	20.3		1.11
	Prodiamine	55.5	61.4	62.2	61.6	10.2		0.883
	Prometon	80.5	92.3	106	127	13.7		17.7
	Prometryn	83.5	93.8	92.4	94.9	11.6		2.67
	Simazine	96.7	104	129	133	6.87		3.49
	Tebuconazole	52.8	52.3	76.6	61.8	0.945		17.8
	Terbufos	96.3	102	104	109	5.58		4.13
	Terbutylazine	80.1	88.4	91.5	89.9	9.78		1.69
	Trans-Nonachlor	81.5	80.5	79.5	79.8	1.23		0.407
	Trifluralin	89.6	85.7	85.1	88.5	4.41		3.93
EPA 8276	Chlordane	83.5	87.2	103	104	4.34		0.217
	Toxaphene	78.3	80.1	78.1	77.8	2.27		0.394
EPA 8321B	2,4-D	127		106	108			2.26

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	3-Hydroxycarbofuran	90.9	103	96.4			6.44
	Acesulfame K	104	61.8	66.5			7.28
	Acetaminophen	67.3					1.63
	Acetamiprid	82.9	104	107			2.65
	Afidopyropen	75.4	84.1	87.2			3.58
	Aldicarb	88.4	84.1	86.0			2.20
	Aldicarb Sulfone	87.0	120	110			9.35
	Aldicarb Sulfoxide	81.6	55.9	52.6			6.11
	AMPA	111	30.2	40.4			10.5
	Bentazon	70.7	50.7	55.8			4.06
	Benzovindiflupyr	86.6	88.4	87.5			0.983
	Carbamazepine	94.3	85.3	87.6			2.55
	Carbaryl	65.9	59.9	58.1			3.10
	Carbofuran	79.6	72.7	70.1			3.53
	Clothianidin	77.1	87.3	88.7			1.57
	Dinotefuran	77.4	98.7	96.0			2.72
	Diuron	87.2	74.9	74.6			0.325
	Endothall	108	107	115			7.55
	Fenuron	93.8	91.9	90.6			1.43
	Fluridone	85.4	84.0	83.2			0.916
	Glufosinate	88.0	65.1	65.5			0.614
	Glyphosate	111	68.0	68.5			0.246
	Hydrocodone	90.8	102	107			4.91
	Ibuprofen	83.0	75.3	72.4			4.00
	Imazapyr	86.7	88.9	95.6			5.57
	Imidacloprid	95.4					1.85
	Linuron	64.6	62.8	59.9			4.71
	Mandestrobin	81.6	94.6	91.5			3.25
	MCPP	95.6	96.1	93.3			2.99
	Methiocarb	76.5	73.8	66.6			10.3
	Methomyl	80.3	76.9	72.4			5.94
	Naproxen	71.8	68.6	73.2			6.52
	Oxamyl	84.8	95.3	89.4			6.45
	Primidone	88.4	95.3	85.4			11.0
	Propoxur	77.9	74.3	68.5			8.09
	Pyraclostrobin	81.4	93.8	89.3			4.98
	Sucralose	98.0	89.0	106			15.3
	Thiamethoxam	90.3	145	144			1.12
	Tolfenpyrad	51.0	59.3	55.3			6.93
	Triclopyr	93.9	97.7	84.9			14.0
SM 2120 B	Color (true)	99.4				0.229	
SM 2320 B-97	Total Alkalinity	104				0.704	
SM 2540 C-97	TDS					1.10	
SM 4500 F-C-97	Fluoride	95.9	97.9	97.2			0.487
SM 5310 B-00	Organic Carbon	96.2	103	99.7			2.62

Reference Method Descriptions

Method / DoH Cert

EPA 180.1 Rev. 2.0 /
E31780

EPA 200.7 Rev. 4.4 /
E31780

Description

Turbidity in aqueous matrices

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Associated Samples

2129111, 2129114

2129150, 2129151

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2129150, 2129151
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2129111, 2129114
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2129111, 2129114
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2129112, 2129115
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2129112, 2129115
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2129112, 2129115
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2129112, 2129115
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2129113, 2129116
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2129148
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2129149
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2129148
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2129141
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2129142, 2129143
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2129142, 2129143
SM 2120 B / E31780	True Color measured at 450 nm	2129111, 2129114
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2129111, 2129114
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2129111, 2129114
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2129111, 2129114
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2129111, 2129114
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2129112, 2129115

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	10/17/2019			10/17/2019 15:48	Samantha Davila	2129111, 2129114
EPA 200.7 Rev. 4.4	10/17/2019	10/21/2019 15:30	Elliott D. Healy	10/22/2019 17:14	Alexander Thompson	2129151
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	10/22/2019 19:57	Alexander Thompson	2129150
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	10/23/2019 17:17	Alexander Thompson	2129151
EPA 200.8 Rev. 5.4	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/04/2019 18:44	Robert K Palmer	2129151
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/04/2019 21:30	Robert K Palmer	2129150
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/06/2019 09:35	Robert K Palmer	2129151
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/06/2019 11:58	Robert K Palmer	2129150
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/07/2019 16:08	Robert K Palmer	2129151
	10/17/2019	10/21/2019 15:30	Elliott D. Healy	11/07/2019 17:29	Robert K Palmer	2129150
EPA 300.0 Rev. 2.1	10/17/2019			10/29/2019 15:30	Julia Storbeck	2129111
	10/17/2019			10/29/2019 15:42	Julia Storbeck	2129114
EPA 350.1 Rev. 2.0	10/17/2019			10/22/2019 14:12	Ping Hua	2129112
	10/17/2019			10/22/2019 14:24	Ping Hua	2129115
EPA 351.2 Rev. 2.0	10/17/2019	10/23/2019 12:50	Sima Feizi	10/25/2019 19:11	Jhamieka S. Greenwood	2129115
	10/17/2019	10/23/2019 13:06	Sima Feizi	10/24/2019 17:58	Jhamieka S. Greenwood	2129112
EPA 353.2 Rev. 2.0	10/17/2019			10/21/2019 10:41	Lauren Lees	2129112
	10/17/2019			10/21/2019 10:42	Lauren Lees	2129115
EPA 365.1 Rev. 2.0	10/17/2019	10/22/2019 14:40	Lipi Saha	10/23/2019 12:35	Rosalyn Ballman	2129112
	10/17/2019	10/22/2019 14:40	Lipi Saha	10/23/2019 17:50	Rosalyn Ballman	2129115
EPA 365.1 Rev. 2.0 dissolved	10/17/2019			10/17/2019 14:51	Virginia P. Brown	2129113
	10/17/2019			10/17/2019 14:52	Virginia P. Brown	2129116
EPA 8270E	10/17/2019	10/18/2019 09:00	Julie Wi	10/23/2019 04:47	Vandana T. Nagar	2129149
	10/17/2019	10/18/2019 09:00	Julie Wi	10/24/2019 17:28	Vandana T. Nagar	2129149
	10/17/2019	10/22/2019 09:00	Rasheda Ghaffari	10/28/2019 18:33	Vandana T. Nagar	2129148
EPA 8276	10/17/2019	10/22/2019 09:00	Rasheda Ghaffari	10/29/2019 00:10	Michael Poppell	2129148
EPA 8321B	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/21/2019 22:08	Juyoung Kim	2129141
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	10/21/2019 13:17	Mohammad Ghaffari	2129142
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	10/21/2019 13:44	Mohammad Ghaffari	2129143
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	11/13/2019 16:10	Rebecca Ware	2129142
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	11/13/2019 16:22	Rebecca Ware	2129143
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	11/18/2019 12:13	Rebecca Ware	2129142
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	11/18/2019 12:24	Rebecca Ware	2129143
	10/17/2019	10/22/2019 09:00	Hoor Shaik	10/23/2019 04:05	Juyoung Kim	2129142
	10/17/2019	10/22/2019 09:00	Hoor Shaik	10/23/2019 04:39	Juyoung Kim	2129143
	10/17/2019	10/22/2019 09:00	Hoor Shaik	10/23/2019 19:39	Juyoung Kim	2129142
	10/17/2019	10/22/2019 09:00	Hoor Shaik	10/23/2019 20:13	Juyoung Kim	2129143
SM 2120 B	10/17/2019			10/17/2019 17:52	Madeline Funaro	2129111
	10/17/2019			10/17/2019 17:53	Madeline Funaro	2129114
SM 2320 B-97	10/17/2019			10/21/2019 20:19	Dale L. Simmons	2129111

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	10/17/2019			10/21/2019 20:32	Dale L. Simmons	2129114
SM 2540 C-97	10/17/2019			10/18/2019 16:10	Rosalyn Ballman	2129111, 2129114
SM 2540 D-97	10/17/2019			10/18/2019 16:10	Rosalyn Ballman	2129111, 2129114
SM 4500 F-C-97	10/17/2019			10/21/2019 20:19	Dale L. Simmons	2129111
	10/17/2019			10/21/2019 20:32	Dale L. Simmons	2129114
SM 5310 B-00	10/17/2019			10/22/2019 00:12	Madeline Funaro	2129112
	10/17/2019			10/22/2019 00:27	Madeline Funaro	2129115