

Chemical Analysis Report

NE-DIST-2020-09-01-02

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

Event Description: **Alachua County 2020**
Request ID: **RQ-2020-08-31-29**
Customer: **NE-DIST**
Project ID: **SMP**

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Date Certified: 23-SEP-2020 12:29



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: Pareners BR Upstream of culverts under CR1491

Collection Date/Time: 08/31/2020 11:15

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193379	EPA 180.1 Rev. 2.0	Turbidity	13	A	NTU	P386821	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P387062	
		Sulfate	23		mg SO4/L	P387067	
	SM 2120 B-2011	Color (true)	360		PCU	P386832	
	SM 2320 B-2011	Total Alkalinity	29		mg CaCO3/L	P386894	
	SM 2540 C-2011	TDS	164		mg/L	P387204	
	SM 2540 D-2011	TSS	17		mg/L	P387184	
2193380	SM 4500 F-C-2011	Fluoride	0.27		mg F/L	P386898	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P387026	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P386876	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P386842	
	EPA 365.1 Rev. 2.0	Total-P	0.90		mg P/L	P386923	
2193381	SM 5310 B-2011	Organic Carbon	35		mg C/L	P387199	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.50		mg P/L	P386825	
2193384	EPA 8321B	Aldicarb	0.020	U	ug/L	P386810	
		Aldicarb Sulfone	0.0020	U	ug/L	P386810	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P386810	
		Carbaryl	0.0020	U	ug/L	P386810	
		Carbofuran	0.0020	U	ug/L	P386810	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P386810	
		Methiocarb	0.0020	U	ug/L	P386810	
		Methomyl	0.0020	U	ug/L	P386810	
		Oxamyl	0.0020	U	ug/L	P386810	
		Propoxur	0.0020	U	ug/L	P386810	
2193385		2,4-D	0.0020	U	ug/L	P386810	
		Acesulfame K**	0.10	U	ug/L	P386879	MS
		AMPA**	0.17	I	ug/L	P386879	
		Sucralose**	0.010	U	ug/L	P386879	MS
		Acetaminophen**	0.0080	U	ug/L	P386810	
		Acetamiprid**	0.0020	U	ug/L	P386810	
		Endothal**	0.25	U	ug/L	P386879	
		Glufosinate**	0.10	U	ug/L	P386879	MS
		Glyphosate**	0.10	U	ug/L	P386879	MS
		Afidopyropen**	0.0020	U	ug/L	P386810	
		Bentazon	8.0E-04	U	ug/L	P386810	
		Benzovindiflupyr**	0.0020	U	ug/L	P386810	
		Carbamazepine**	8.0E-04	U	ug/L	P386810	
		Clothianidin**	0.0020	U	ug/L	P386810	
		Dinotefuran**	0.0020	U	ug/L	P386810	
		Diuron	0.0052	I	ug/L	P386810	
		Fenuron	0.016	U	ug/L	P386810	
		Fluridone**	8.0E-04	U	ug/L	P386810	

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193385	EPA 8321B	Imazapyr**	0.0040	U	ug/L	P386810	
		Hydrocodone**	0.0020	U	ug/L	P386810	
		Ibuprofen**	0.020	U	ug/L	P386810	
		Imidacloprid	0.0037	I	ug/L	P386810	
		Linuron	0.0040	U	ug/L	P386810	
		Mandestrobin**	0.0020	U	ug/L	P386810	
		MCPP	0.0020	U	ug/L	P386810	
		Naproxen**	0.0080	U	ug/L	P386810	
		Primidone**	0.0040	U	ug/L	P386810	
		Pyraclostrobin**	0.0020	U	ug/L	P386810	
		Thiamethoxam**	0.0020	U	ug/L	P386810	
		Tolfenpyrad**	0.0020	U	ug/L	P386810	
		Triclopyr**	0.0040	U	ug/L	P386810	
2193386	EPA 8270E	Aldrin	4.1	U	ng/L	P386881	
		Alpha-BHC	2.1	U	ng/L	P386881	
		Alpha-Chlordane	1.0	U	ng/L	P386881	
		Beta-BHC	8.3	U	ng/L	P386881	
		Beta-Cyfluthrin**	15	U	ng/L	P386881	
		Bifenthrin**	4.1	U	ng/L	P386881	
		Delta-BHC	8.3	U	ng/L	P386881	
		Gamma-BHC	8.3	U	ng/L	P386881	
		Chlorothalonil	2.1	U	ng/L	P386881	
		Cis-Nonachlor**	1.0	U	ng/L	P386881	
		Cypermethrin	21	U	ng/L	P386881	
		Dacthal**	1.0	U	ng/L	P386881	
		DDD-p,p'	5.2	U	ng/L	P386881	
		DDE-p,p'	5.2	U	ng/L	P386881	
		DDT-p,p'	6.2	U	ng/L	P386881	
		Deltamethrin**	21	U	ng/L	P386881	
		Dicofol	31	U	ng/L	P386881	RPD
		Dieldrin	4.1	U	ng/L	P386881	
		Endosulfan I	4.1	U	ng/L	P386881	
		Endosulfan II	4.1	U	ng/L	P386881	
		Endosulfan Sulfate	2.1	U	ng/L	P386881	
		Endrin	2.1	U	ng/L	P386881	
		Endrin Aldehyde	2.1	U	ng/L	P386881	
		Endrin Ketone	2.1	U	ng/L	P386881	
		Ethalfuralin**	3.1	U	ng/L	P386881	
		Gamma-Chlordane	1.0	U	ng/L	P386881	
		Heptachlor	1.5	U	ng/L	P386881	
		Heptachlor Epoxide	2.1	U	ng/L	P386881	
		Hexachlorobenzene	2.1	U	ng/L	P386881	
		Lambda-Cyhalothrin**	15	U	ng/L	P386881	
		Methoxychlor	4.1	U	ng/L	P386881	
		Mirex	2.1	U	ng/L	P386881	

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193386	EPA 8270E	Permethrin	18	I	ng/L	P386881	
		Phenothrin**	31	U	ng/L	P386881	
		Prallethrin**	26	U	ng/L	P386881	
		Trans-Nonachlor**	1.0	U	ng/L	P386881	
		Trifluralin	2.6	U	ng/L	P386881	
2193387	EPA 8270E	Chlordane	5.2	U	ng/L	P386881	
		Toxaphene	31	U	ng/L	P386881	MS
		Acetochlor	0.24	U	ng/L	P386897	MS
		Alachlor	0.24	U	ng/L	P386897	
		Ametryn	0.58	U	ng/L	P386897	
		Atrazine	0.25	IJ	ng/L	P386897	LCS, MS, RPD
		Atrazine Desethyl	1.4	UJ	ng/L	P386897	RPD
		Azinphos Methyl	1.9	U	ng/L	P386897	
		Bromacil	0.48	UJ	ng/L	P386897	RPD
		Butylate	0.38	U	ng/L	P386897	
		Carbophenothion	0.48	UJ	ng/L	P386897	LCS
		Chlorpyrifos Ethyl	0.24	UJ	ng/L	P386897	LCS
		Chlorpyrifos Methyl	0.048	UJ	ng/L	P386897	LCS, MS
		Cyanazine	3.1	U	ng/L	P386897	
		Demeton	1.4	UJ	ng/L	P386897	LCS
		Diazinon	0.12	U	ng/L	P386897	MS
		Dimethenamid**	0.096	U	ng/L	P386897	
		Disulfoton	0.48	UJ	ng/L	P386897	MS, RPD
		Dithiopyr**	0.11	IJ	ng/L	P386897	LCS, MS
		EPTC	1.2	U	ng/L	P386897	
		Ethion	0.14	U	ng/L	P386897	
		Ethoprop	0.096	UJ	ng/L	P386897	LCS, MS
		Fenamiphos	0.48	UJ	ng/L	P386897	LCS
		Fipronil	1.4		ng/L	P386897	
		Fipronil Desulfinyl**	0.30	I	ng/L	P386897	
		Fipronil Sulfide	0.48	IJ	ng/L	P386897	RPD
		Fipronil Sulfone	1.2		ng/L	P386897	
		Flumioxazin**	1.9	I	ng/L	P386897	
		Fonofos	0.19	UJ	ng/L	P386897	LCS
		Hexazinone	0.48	U	ng/L	P386897	
		Imazalil**	0.72	U	ng/L	P386897	MS
		Malathion	0.34	UJ	ng/L	P386897	LCS, MS
		Metalaxyl	0.72	U	ng/L	P386897	
		Metolachlor	0.48	UJ	ng/L	P386897	LCS, MS
		Metribuzin	3.1	U	ng/L	P386897	
		Mevinphos	0.48	UJ	ng/L	P386897	LCS, MS, RPD
		Molinate	0.29	U	ng/L	P386897	
		Naled**	1.4	U	ng/L	P386897	
		Norflurazon	0.48	U	ng/L	P386897	

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193387	EPA 8270E	Oxadiazon	0.24	I	ng/L	P386897	MS
		Parathion Ethyl	0.24	U	ng/L	P386897	
		Parathion Methyl	0.53	U	ng/L	P386897	
		Pendimethalin	0.96	UJ	ng/L	P386897	LCS, MS, RPD
		Phorate	0.24	U	ng/L	P386897	
		Prodiamine**	0.55	IJ	ng/L	P386897	RPD
		Prometon	0.86	UJ	ng/L	P386897	RPD
		Prometryn	0.19	U	ng/L	P386897	
		Pronamide**	0.14	U	ng/L	P386897	RPD
		Propiconazole**	6.8		ng/L	P386897	
		Simazine	0.48	UJ	ng/L	P386897	LCS, MS, RPD
		Sulfentrazone**	0.48	U	ng/L	P386897	
		Tebuconazole**	0.48	U	ng/L	P386897	
		Terbufos	0.096	UJ	ng/L	P386897	LCS, MS
		Terbuthylazine	0.41	UJ	ng/L	P386897	LCS, RPD

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

EPA 8270E: MS accuracy for some parameters 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: Pareners BR Upstream of culverts under CR1491

Collection Date/Time: 08/31/2020 11:15

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2193388	EPA 200.7 Rev. 4.4	Barium	13.4		ug/L	P386852	
		Calcium	21.2		mg/L	P386852	
		Iron	1.04E+03		ug/L	P386852	
		Magnesium	5.64		mg/L	P386852	
		Potassium	2.3		mg/L	P386852	
		Sodium	8.7		mg/L	P386852	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P386852	
		Aluminum	851		ug/L	P386852	
		Antimony	0.15	I	ug/L	P386852	
		Arsenic	1.33		ug/L	P386852	
		Boron**	25.7		ug/L	P386852	
		Cadmium	0.105		ug/L	P386852	
		Chromium	1.9		ug/L	P386852	
		Copper	1.02		ug/L	P387326	
		Lead	0.70		ug/L	P386852	
		Nickel	1.1	I	ug/L	P386852	
		Selenium	0.28	I	ug/L	P386852	
		Silver	0.010	U	ug/L	P386852	
		Thallium	0.10	U	ug/L	P386852	
	SM 2340B	Hardness	76.1		mg/L	P386852	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386821

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386852

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: P386852

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
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 200.8 Rev. 5.4
Batch ID: P387326

Component	Result	Code	Units
Copper	0.40	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387026

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387026

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386876

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386842

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386923

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386825

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

Reference Method: EPA 8270E
Batch ID: P386881

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	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P386881

Component	Result	Code	Units
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
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	25	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
 Batch ID: P386897

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	2.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	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
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P386897

Component	Result	Code	Units
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Naled	1.5	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
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P386881

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

Reference Method: EPA 8321B
Batch ID: P386810

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
Acetamiprid	0.0020	U	ug/L
Afidopyropen	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
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P386810

Component	Result	Code	Units
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
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
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P386879

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

Reference Method: SM 2120 B-2011
Batch ID: P386832

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P386894

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

Reference Method: SM 2540 C-2011
Batch ID: P387204

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P387184

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P387199

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: P386852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	107		P	85 - 115
Calcium	109		P	85 - 115
Iron	110		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	105		P	85 - 115
Sodium	105		P	85 - 115
Zinc	108		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.0		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	97.9		P	85 - 115
Boron	98.9		P	85 - 115
Cadmium	97.9		P	85 - 115
Chromium	102		P	85 - 115
Lead	99.2		P	85 - 115
Nickel	94.8		P	85 - 115
Selenium	96.9		P	85 - 115
Silver	106		P	85 - 115
Thallium	99.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387026

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386876

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386876

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386842

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: P386923

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	109		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386825

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

Reference Method: EPA 8270E
Batch ID: P386881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	36.8	47.3	P/P	20 - 87.0
Alpha-BHC	72.1	77.0	P/P	65 - 142
Alpha-Chlordane	66.4	75.4	P/P	58 - 106
Beta-BHC	86.5	80.8	P/P	65 - 179
Beta-Cyfluthrin	69.3	74.9	P/P	39 - 153
Bifenthrin	67.6	76.7	P/P	38 - 128
Chlorothalonil	83.2	71.5	P/P	20 - 214
Cis-Nonachlor	71.3	81.5	P/P	56 - 113
Cypermethrin	76.2	88.7	P/P	37 - 130
Dacthal	80.1	85.0	P/P	75 - 109
DDD-p,p'	76.7	85.5	P/P	66 - 119
DDE-p,p'	64.4	75.1	P/P	53 - 108
DDT-p,p'	97.2	80.9	P/P	57 - 133
Delta-BHC	105	101	P/P	68 - 187
Deltamethrin	91.1	91.9	P/P	50 - 200
Dicofol	87.3	84.8	P/P	66 - 123
Dieldrin	69.7	77.0	P/P	65 - 111
Endosulfan I	73.8	80.2	P/P	65 - 115
Endosulfan II	83.4	95.1	P/P	68 - 133
Endosulfan Sulfate	90.2	88.5	P/P	62 - 127
Endrin	72.0	77.5	P/P	64 - 122
Endrin Aldehyde	72.2	88.9	P/P	61 - 132
Endrin Ketone	83.6	92.0	P/P	66 - 120
Ethalfuralin	58.3	68.3	P/P	57 - 127
Gamma-BHC	84.5	85.8	P/P	71 - 158
Gamma-Chlordane	62.9	71.3	P/P	53 - 106
Heptachlor	50.1	58.4	P/P	45 - 96.0
Heptachlor Epoxide	70.4	77.7	P/P	64 - 109

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P386881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hexachlorobenzene	46.4	53.4	P/P	46 - 103
Lambda-Cyhalothrin	66.3	76.6	P/P	38 - 145
Methoxychlor	78.8	84.4	P/P	69 - 149
Mirex	50.3	60.8	P/P	31 - 90.0
Permethrin	66.7	77.5	P/P	41 - 108
Phenothrin	53.5	62.9	P/P	22 - 91.0
Prallethrin	53.0	63.8	P/P	32 - 92.0
Trans-Nonachlor	58.9	71.8	P/P	50 - 107
Trifluralin	59.8	67.3	P/P	58 - 119

Reference Method: EPA 8270E
Batch ID: P386897

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.1	77.0	P/P	71 - 122
Alachlor	102	77.7	P/P	70 - 121
Ametryn	101	91.5	P/P	49 - 137
Atrazine	104	74.0	P/F	76 - 125
Atrazine Desethyl	90.0	60.4	P/P	31 - 144
Azinphos Methyl	109	99.9	P/P	67 - 150
Bromacil	99.0	67.3	P/P	36 - 121
Butylate	74.2	60.0	P/P	33 - 88.0
Carbophenothion	146	109	F/P	66 - 116
Chlorpyrifos Ethyl	142	108	F/P	73 - 117
Chlorpyrifos Methyl	145	111	F/P	68 - 121
Cyanazine	133	98.5	P/P	20 - 250
Demeton	138	108	F/P	30 - 123
Diazinon	96.3	71.8	P/P	70 - 128
Dimethenamid	100	75.5	P/P	66 - 122
Disulfoton	122	83.9	P/P	46 - 124
Dithiopyr	87.1	66.2	P/F	69 - 122
EPTC	68.1	57.3	P/P	31 - 90.0
Ethion	117	90.5	P/P	45 - 135
Ethoprop	134	101	F/P	59 - 118
Fenamiphos	150	120	F/P	30 - 136
Fipronil	104	78.9	P/P	57 - 127
Fipronil Desulfinyl	103	77.5	P/P	51 - 122
Fipronil Sulfide	96.6	70.6	P/P	57 - 119
Fipronil Sulfone	116	87.9	P/P	51 - 119
Flumioxazin	201	156	P/P	20 - 250
Fonofos	120	92.1	F/P	60 - 120
Hexazinone	102	76.8	P/P	57 - 142
Imazalil	122	98.2	P/P	30 - 139
Malathion	184	142	F/F	67 - 128
Metalaxyl	96.2	72.2	P/P	21 - 148
Metolachlor	89.0	66.6	P/F	70 - 120
Metribuzin	112	84.5	P/P	20 - 250
Mevinphos	123	93.8	F/P	47 - 116
Molinate	80.2	65.0	P/P	41 - 99.0
Naled	92.6	77.5	P/P	38 - 97.0
Norflurazon	95.4	72.5	P/P	54 - 127
Oxadiazon	89.8	67.6	P/P	65 - 122

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P386897

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	98.1	75.7	P/P	71 - 113
Parathion Methyl	114	85.2	P/P	73 - 129
Pendimethalin	60.8	42.4	F/F	63 - 130
Phorate	115	85.6	P/P	48 - 118
Prodiamine	52.0	37.0	P/P	20 - 144
Prometon	90.6	63.2	P/P	53 - 120
Prometryn	110	81.2	P/P	63 - 119
Pronamide	121	92.0	P/P	81 - 122
Propiconazole	89.7	70.4	P/P	62 - 124
Simazine	85.5	57.1	P/F	77 - 129
Sulfentrazone	96.1	72.9	P/P	20 - 137
Tebuconazole	57.0	45.1	P/P	20 - 118
Terbufos	120	91.9	F/P	61 - 119
Terbutylazine	99.4	70.6	P/F	75 - 119

Reference Method: EPA 8276
Batch ID: P386881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	93.4	95.7	P/P	47 - 119
Toxaphene	96.4	98.2	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P386810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	89.1		P	30 - 160
3-Hydroxycarbofuran	83.7		P	30 - 160
Acetaminophen	92.7		P	30 - 160
Acetamiprid	75.6		P	30 - 160
Afidopyropen	56.9		P	30 - 160
Aldicarb	71.3		P	30 - 160
Aldicarb Sulfone	97.4		P	30 - 160
Aldicarb Sulfoxide	98.1		P	30 - 160
Bentazon	75.0		P	30 - 160
Benzovindiflupyr	71.8		P	30 - 160
Carbamazepine	64.1		P	30 - 160
Carbaryl	68.4		P	30 - 160
Carbofuran	55.8		P	30 - 160
Clothianidin	89.3		P	30 - 160
Dinotefuran	100		P	30 - 160
Diuron	66.9		P	30 - 160
Fenuron	105		P	30 - 160
Fluridone	77.3		P	30 - 160
Hydrocodone	93.4		P	30 - 160
Ibuprofen	77.7		P	30 - 160
Imazapyr	80.5		P	30 - 160
Imidacloprid	105		P	30 - 160
Linuron	75.9		P	30 - 160
Mandestrobin	77.5		P	30 - 160
MCPP	101		P	30 - 160
Methiocarb	55.8		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P386810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Methomyl	94.7		P	30 - 160
Naproxen	47.6		P	30 - 160
Oxamyl	93.2		P	30 - 160
Primidone	87.0		P	30 - 160
Propoxur	60.6		P	30 - 160
Pyraclostrobin	57.6		P	30 - 160
Thiamethoxam	90.6		P	30 - 160
Tolfenpyrad	44.7		P	30 - 160
Triclopyr	63.1		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P386879

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	72.7		P	40 - 150
AMPA	84.7		P	40 - 150
Endothall	107		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	108		P	40 - 140
Sucralose	104		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P386832

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	95.9		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P386894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.2		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P387199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193388	Barium	109	105	P/P	80 - 120
2193388	Calcium	107		P	80 - 120
2193388	Iron	110	108	P/P	80 - 120
2193388	Magnesium	107		P	80 - 120
2193388	Potassium	103	100	P/P	80 - 120
2193388	Sodium	103		P	80 - 120
2193388	Zinc	112	109	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193388	Aluminum	83.0	92.7	P/P	80 - 120
2193388	Antimony	100	102	P/P	80 - 120
2193388	Arsenic	99.0	101	P/P	80 - 120
2193388	Boron	97.0	99.4	P/P	80 - 120
2193388	Cadmium	100	102	P/P	80 - 120
2193388	Chromium	103	105	P/P	80 - 120
2193388	Lead	98.0	101	P/P	80 - 120
2193388	Nickel	92.9	94.6	P/P	80 - 120
2193388	Selenium	97.1	98.2	P/P	80 - 120
2193388	Silver	104	106	P/P	80 - 120
2193388	Thallium	104	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387326

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193356	Copper	102	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193266	Chloride	102		P	90 - 110
2193466	Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193266	Sulfate	100		P	90 - 110
2193466	Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193456	Ammonia-N	97.3	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193338	NO2NO3-N	97.0	97.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P386881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193369	Aldrin	51.4	50.0	P/P	32 - 82.0
2193369	Alpha-BHC	75.5	76.5	P/P	68 - 157
2193369	Alpha-Chlordane	74.6	73.0	P/P	54 - 108
2193369	Beta-BHC	82.4	89.7	P/P	54 - 200
2193369	Beta-Cyfluthrin	74.8	75.6	P/P	50 - 154
2193369	Bifenthrin	81.3	75.4	P/P	49 - 124
2193369	Chlorothalonil	79.3	87.1	P/P	10 - 289
2193369	Cis-Nonachlor	78.5	76.7	P/P	53 - 112
2193369	Cypermethrin	85.3	85.2	P/P	43 - 141
2193369	Dacthal	81.6	88.0	P/P	75 - 112
2193369	DDD-p,p'	83.5	82.7	P/P	58 - 125
2193369	DDE-p,p'	74.6	71.7	P/P	50 - 108
2193369	DDT-p,p'	76.8	83.2	P/P	52 - 140
2193369	Delta-BHC	122	110	P/P	61 - 228
2193369	Deltamethrin	91.8	82.5	P/P	50 - 200
2193369	Dicofol	65.2	95.1	P/P	59 - 130
2193369	Dieldrin	76.9	77.7	P/P	57 - 121
2193369	Endosulfan I	77.9	79.8	P/P	62 - 123
2193369	Endosulfan II	88.4	84.6	P/P	48 - 163
2193369	Endosulfan Sulfate	99.7	94.4	P/P	63 - 132
2193369	Endrin	80.6	82.6	P/P	58 - 128
2193369	Endrin Aldehyde	81.0	70.6	P/P	44 - 126
2193369	Endrin Ketone	88.7	90.2	P/P	68 - 127
2193369	Ethalfuralin	67.5	66.7	P/P	55 - 131
2193369	Gamma-BHC	90.9	95.8	P/P	54 - 206
2193369	Gamma-Chlordane	71.1	69.2	P/P	52 - 105
2193369	Heptachlor	59.9	56.0	P/P	47 - 94.0
2193369	Heptachlor Epoxide	81.9	85.4	P/P	61 - 113
2193369	Hexachlorobenzene	60.4	52.7	P/P	45 - 100
2193369	Lambda-Cyhalothrin	77.1	74.9	P/P	37 - 165
2193369	Methoxychlor	72.5	84.7	P/P	63 - 153
2193369	Mirex	66.1	61.0	P/P	38 - 90.0
2193369	Permethrin	78.4	74.7	P/P	45 - 112
2193369	Phenothrin	67.7	65.4	P/P	22 - 118
2193369	Prallethrin	56.8	55.4	P/P	21 - 114
2193369	Trans-Nonachlor	69.8	68.4	P/P	50 - 103
2193369	Trifluralin	69.3	66.7	P/P	57 - 122

Reference Method: EPA 8270E
Batch ID: P386897

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193323	Acetochlor	67.3	88.8	F/P	68 - 126
2193323	Alachlor	80.5	92.7	P/P	66 - 125
2193323	Ametryn	147	150	P/P	31 - 182
2193323	Atrazine	64.7	109	F/P	68 - 137

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P386897

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193323	Atrazine Desethyl	59.1	81.4	P/P	13 - 161
2193323	Azinphos Methyl	80.4	89.0	P/P	54 - 162
2193323	Bromacil	53.9	88.8	P/P	34 - 144
2193323	Butylate	52.0	62.2	P/P	16 - 92.0
2193323	Carbophenothion	97.7	120	P/P	30 - 131
2193323	Chlorpyrifos Ethyl	93.0	117	P/P	63 - 124
2193323	Chlorpyrifos Methyl	97.7	132	P/F	64 - 125
2193323	Cyanazine	84.0	101	P/P	13 - 245
2193323	Demeton	108	128	P/P	20 - 154
2193323	Diazinon	66.0	88.4	F/P	66 - 141
2193323	Dimethenamid	68.3	88.4	P/P	50 - 130
2193323	Disulfoton	114	158	P/F	55 - 130
2193323	Dithiopyr	46.6	48.2	F/F	66 - 122
2193323	EPTC	49.5	59.3	P/P	15 - 93.0
2193323	Ethion	78.2	93.4	P/P	15 - 148
2193323	Ethoprop	104	141	P/F	59 - 126
2193323	Fenamiphos	102	117	P/P	39 - 137
2193323	Fipronil Desulfinyl	65.0	87.7	P/P	43 - 121
2193323	Flumioxazin	154	210	P/P	10 - 300
2193323	Fonofos	91.0	118	P/P	62 - 128
2193323	Hexazinone	66.2	88.6	P/P	58 - 154
2193323	Imazalil	212	267	P/F	10 - 215
2193323	Malathion	127	164	P/F	54 - 135
2193323	Metalaxyl	65.3	86.8	P/P	46 - 136
2193323	Metolachlor	56.5	75.0	F/P	62 - 126
2193323	Metribuzin	80.3	106	P/P	44 - 277
2193323	Mevinphos	108	155	P/F	44 - 135
2193323	Molinate	63.1	79.1	P/P	31 - 104
2193323	Naled	74.7	96.4	P/P	33 - 113
2193323	Norflurazon	62.0	79.1	P/P	32 - 134
2193323	Oxadiazon	45.1	55.2	F/P	55 - 123
2193323	Parathion Ethyl	76.1	100	P/P	67 - 120
2193323	Parathion Methyl	91.0	120	P/P	70 - 140
2193323	Pendimethalin	51.3	71.6	F/P	59 - 145
2193323	Phorate	109	82.4	P/P	52 - 127
2193323	Prodiamine	50.2	69.0	P/P	11 - 157
2193323	Prometon	70.9	96.5	P/P	55 - 130
2193323	Prometryn	64.3	79.8	P/P	55 - 127
2193323	Pronamide	83.0	127	P/P	66 - 150
2193323	Propiconazole	50.0	80.8	P/P	14 - 178
2193323	Simazine	51.2	69.4	F/P	58 - 159
2193323	Sulfentrazone	54.3	87.9	P/P	21 - 144
2193323	Terbufos	99.6	133	P/F	65 - 131
2193323	Terbutylazine	67.8	93.2	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P386881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2194235	Chlordane	105	119	P/P	34 - 129
2194235	Toxaphene	241	233	F/F	26 - 123

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P386810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193261	3-Hydroxycarbofuran	68.4	68.9	P/P	30 - 160
2193261	Aldicarb	48.5	56.7	P/P	30 - 160
2193261	Aldicarb Sulfone	85.0	86.7	P/P	30 - 160
2193261	Aldicarb Sulfoxide	41.8	41.5	P/P	30 - 160
2193261	Carbaryl	52.7	56.4	P/P	30 - 160
2193261	Carbofuran	49.4	49.7	P/P	30 - 160
2193261	Methiocarb	52.3	53.8	P/P	30 - 160
2193261	Methomyl	88.0	87.0	P/P	30 - 160
2193261	Oxamyl	80.3	81.5	P/P	30 - 160
2193261	Propoxur	49.2	51.2	P/P	30 - 160
2193354	2,4-D	91.3	88.1	P/P	30 - 160
2193354	Acetaminophen	77.5	81.7	P/P	30 - 160
2193354	Acetamiprid	67.1	68.2	P/P	30 - 160
2193354	Afidopyropen	53.5	53.1	P/P	30 - 160
2193354	Bentazon	39.6	46.3	P/P	30 - 160
2193354	Benzovindiflupyr	64.8	63.2	P/P	30 - 160
2193354	Carbamazepine	53.9	56.6	P/P	30 - 160
2193354	Clothianidin	59.9	61.4	P/P	30 - 160
2193354	Dinotefuran	78.8	83.2	P/P	30 - 160
2193354	Diuron	54.1	52.8	P/P	30 - 160
2193354	Fenuron	68.2	72.4	P/P	30 - 160
2193354	Fluridone	75.4	94.7	P/P	30 - 160
2193354	Hydrocodone	64.7	70.3	P/P	30 - 160
2193354	Ibuprofen	83.5	71.2	P/P	30 - 160
2193354	Imidacloprid	109	118	P/P	30 - 160
2193354	Linuron	67.1	68.9	P/P	30 - 160
2193354	Mandestrobin	70.5	75.6	P/P	30 - 160
2193354	MCP	111	110	P/P	30 - 160
2193354	Naproxen	49.2	63.2	P/P	30 - 160
2193354	Primidone	76.8	79.3	P/P	30 - 160
2193354	Pyraclostrobin	59.1	60.2	P/P	30 - 160
2193354	Thiamethoxam	72.7	71.8	P/P	30 - 160
2193354	Tolfenpyrad	51.7	48.2	P/P	30 - 160
2193354	Triclopyr	87.5	87.4	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P386879

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193353	Acesulfame K	29.8	29.0	F/F	40 - 150
2193353	AMPA	48.6	42.7	P/P	40 - 150
2193353	Endothall	90.2	106	P/P	40 - 150
2193353	Glufosinate	182	152	F/F	40 - 150
2193353	Glyphosate	510	446	F/F	40 - 140
2193353	Sucralose	22.1	19.2	F/F	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193332	Fluoride	100	99.8	P/P	94 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P387199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193341	Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193379	Turbidity	6.30	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193388	Barium	3.73	Spike	P	0 - 20
2193388	Calcium	2.38	Spike	P	0 - 20
2193388	Iron	2.15	Spike	P	0 - 20
2193388	Magnesium	1.93	Spike	P	0 - 20
2193388	Potassium	1.89	Spike	P	0 - 20
2193388	Sodium	2.42	Spike	P	0 - 20
2193388	Zinc	2.66	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193388	Aluminum	5.01	Spike	P	0 - 20
2193388	Antimony	1.70	Spike	P	0 - 20
2193388	Arsenic	1.75	Spike	P	0 - 20
2193388	Boron	1.87	Spike	P	0 - 20
2193388	Cadmium	1.65	Spike	P	0 - 20
2193388	Chromium	1.85	Spike	P	0 - 20
2193388	Lead	2.64	Spike	P	0 - 20
2193388	Nickel	1.70	Spike	P	0 - 20
2193388	Selenium	1.14	Spike	P	0 - 20
2193388	Silver	1.44	Spike	P	0 - 20
2193388	Thallium	3.23	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387326

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193356	Copper	0.768	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193266	Chloride	1.74	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193266	Sulfate	1.16	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193456	Ammonia-N	2.39	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193334	Kjeldahl Nitrogen	0.258	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193338	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193380	Total-P	0.154	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193339	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P386881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193369	Aldrin	2.73	Spike	P	0 - 30
2193369	Alpha-BHC	1.26	Spike	P	0 - 30
2193369	Alpha-Chlordane	2.23	Spike	P	0 - 30
2193369	Beta-BHC	8.44	Spike	P	0 - 30
2193369	Beta-Cyfluthrin	1.18	Spike	P	0 - 30
2193369	Bifenthrin	7.49	Spike	P	0 - 30
2193369	Chlorothalonil	9.28	Spike	P	0 - 30
2193369	Cis-Nonachlor	2.41	Spike	P	0 - 30
2193369	Cypermethrin	0.0905	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P386881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193369	Dacthal	7.64	Spike	P	0 - 30
2193369	DDD-p,p'	0.939	Spike	P	0 - 30
2193369	DDE-p,p'	3.92	Spike	P	0 - 30
2193369	DDT-p,p'	7.99	Spike	P	0 - 30
2193369	Delta-BHC	10.0	Spike	P	0 - 30
2193369	Deltamethrin	10.7	Spike	P	0 - 30
2193369	Dicofol	37.4	Spike	F	0 - 30
2193369	Dieldrin	0.965	Spike	P	0 - 30
2193369	Endosulfan I	2.41	Spike	P	0 - 30
2193369	Endosulfan II	4.39	Spike	P	0 - 30
2193369	Endosulfan Sulfate	5.51	Spike	P	0 - 30
2193369	Endrin	2.43	Spike	P	0 - 30
2193369	Endrin Aldehyde	13.7	Spike	P	0 - 30
2193369	Endrin Ketone	1.65	Spike	P	0 - 30
2193369	Ethalfuralin	1.16	Spike	P	0 - 30
2193369	Gamma-BHC	5.20	Spike	P	0 - 30
2193369	Gamma-Chlordane	2.64	Spike	P	0 - 30
2193369	Heptachlor	6.78	Spike	P	0 - 30
2193369	Heptachlor Epoxide	4.17	Spike	P	0 - 30
2193369	Hexachlorobenzene	13.7	Spike	P	0 - 30
2193369	Lambda-Cyhalothrin	2.82	Spike	P	0 - 30
2193369	Methoxychlor	15.5	Spike	P	0 - 30
2193369	Mirex	7.95	Spike	P	0 - 30
2193369	Permethrin	4.77	Spike	P	0 - 30
2193369	Phenothrin	3.52	Spike	P	0 - 30
2193369	Prallethrin	2.53	Spike	P	0 - 30
2193369	Trans-Nonachlor	1.99	Spike	P	0 - 30
2193369	Trifluralin	3.86	Spike	P	0 - 30
LFB	Aldrin	24.9	LCS	P	0 - 30
LFB	Alpha-BHC	6.59	LCS	P	0 - 30
LFB	Alpha-Chlordane	12.7	LCS	P	0 - 30
LFB	Beta-BHC	6.82	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	7.76	LCS	P	0 - 30
LFB	Bifenthrin	12.6	LCS	P	0 - 30
LFB	Chlorothalonil	15.1	LCS	P	0 - 30
LFB	Cis-Nonachlor	13.3	LCS	P	0 - 30
LFB	Cypermethrin	15.1	LCS	P	0 - 30
LFB	Dacthal	5.93	LCS	P	0 - 30
LFB	DDD-p,p'	10.9	LCS	P	0 - 30
LFB	DDE-p,p'	15.3	LCS	P	0 - 30
LFB	DDT-p,p'	18.4	LCS	P	0 - 30
LFB	Delta-BHC	3.35	LCS	P	0 - 30
LFB	Deltamethrin	0.858	LCS	P	0 - 30
LFB	Dicofol	2.82	LCS	P	0 - 30
LFB	Dieldrin	9.95	LCS	P	0 - 30
LFB	Endosulfan I	8.37	LCS	P	0 - 30
LFB	Endosulfan II	13.2	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.86	LCS	P	0 - 30
LFB	Endrin	7.37	LCS	P	0 - 30
LFB	Endrin Aldehyde	20.7	LCS	P	0 - 30
LFB	Endrin Ketone	9.64	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P386881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ethalfuralin	15.8	LCS	P	0 - 30
LFB	Gamma-BHC	1.54	LCS	P	0 - 30
LFB	Gamma-Chlordane	12.5	LCS	P	0 - 30
LFB	Heptachlor	15.3	LCS	P	0 - 30
LFB	Heptachlor Epoxide	9.74	LCS	P	0 - 30
LFB	Hexachlorobenzene	14.1	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	14.4	LCS	P	0 - 30
LFB	Methoxychlor	6.92	LCS	P	0 - 30
LFB	Mirex	18.8	LCS	P	0 - 30
LFB	Permethrin	14.9	LCS	P	0 - 30
LFB	Phenothrin	16.0	LCS	P	0 - 30
LFB	Prallethrin	18.5	LCS	P	0 - 30
LFB	Trans-Nonachlor	19.8	LCS	P	0 - 30
LFB	Trifluralin	11.8	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P386897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193323	Acetochlor	27.5	Spike	P	0 - 30
2193323	Alachlor	14.0	Spike	P	0 - 30
2193323	Ametryn	2.35	Spike	P	0 - 30
2193323	Atrazine	33.0	Spike	F	0 - 30
2193323	Atrazine Desethyl	31.7	Spike	F	0 - 30
2193323	Azinphos Methyl	10.1	Spike	P	0 - 30
2193323	Bromacil	25.9	Spike	P	0 - 30
2193323	Butylate	17.9	Spike	P	0 - 30
2193323	Carbophenothion	20.5	Spike	P	0 - 30
2193323	Chlorpyrifos Ethyl	22.9	Spike	P	0 - 30
2193323	Chlorpyrifos Methyl	29.7	Spike	P	0 - 30
2193323	Cyanazine	18.2	Spike	P	0 - 30
2193323	Demeton	17.4	Spike	P	0 - 30
2193323	Diazinon	29.1	Spike	P	0 - 30
2193323	Dimethenamid	25.6	Spike	P	0 - 30
2193323	Disulfoton	32.6	Spike	F	0 - 30
2193323	Dithiopyr	3.48	Spike	P	0 - 30
2193323	EPTC	17.9	Spike	P	0 - 30
2193323	Ethion	17.6	Spike	P	0 - 30
2193323	Ethoprop	29.9	Spike	P	0 - 30
2193323	Fenamiphos	14.2	Spike	P	0 - 30
2193323	Fipronil	29.2	Spike	P	0 - 30
2193323	Fipronil Desulfinyl	25.1	Spike	P	0 - 30
2193323	Fipronil Sulfide	29.0	Spike	P	0 - 30
2193323	Fipronil Sulfone	25.8	Spike	P	0 - 30
2193323	Flumioxazin	28.2	Spike	P	0 - 30
2193323	Fonofos	25.9	Spike	P	0 - 30
2193323	Hexazinone	26.6	Spike	P	0 - 30
2193323	Imazalil	23.1	Spike	P	0 - 30
2193323	Malathion	25.1	Spike	P	0 - 30
2193323	Metalaxyl	28.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P386897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193323	Metolachlor	28.1	Spike	P	0 - 30
2193323	Metribuzin	27.8	Spike	P	0 - 30
2193323	Mevinphos	35.3	Spike	F	0 - 30
2193323	Molinate	22.5	Spike	P	0 - 30
2193323	Naled	25.4	Spike	P	0 - 30
2193323	Norflurazon	24.2	Spike	P	0 - 30
2193323	Oxadiazon	20.1	Spike	P	0 - 30
2193323	Parathion Ethyl	27.4	Spike	P	0 - 30
2193323	Parathion Methyl	27.3	Spike	P	0 - 30
2193323	Pendimethalin	33.0	Spike	F	0 - 30
2193323	Phorate	27.3	Spike	P	0 - 30
2193323	Prodiamine	31.6	Spike	F	0 - 30
2193323	Prometon	30.5	Spike	F	0 - 30
2193323	Prometryn	21.6	Spike	P	0 - 30
2193323	Pronamide	41.7	Spike	F	0 - 30
2193323	Propiconazole	25.6	Spike	P	0 - 30
2193323	Simazine	30.2	Spike	F	0 - 30
2193323	Sulfentrazone	28.9	Spike	P	0 - 30
2193323	Tebuconazole	18.8	Spike	P	0 - 30
2193323	Terbufos	28.8	Spike	P	0 - 30
2193323	Terbutylazine	31.5	Spike	F	0 - 30
LFB	Acetochlor	25.1	LCS	P	0 - 30
LFB	Alachlor	26.6	LCS	P	0 - 30
LFB	Ametryn	10.3	LCS	P	0 - 30
LFB	Atrazine	34.0	LCS	F	0 - 30
LFB	Atrazine Desethyl	39.3	LCS	F	0 - 30
LFB	Azinphos Methyl	8.54	LCS	P	0 - 30
LFB	Bromacil	38.2	LCS	F	0 - 30
LFB	Butylate	21.1	LCS	P	0 - 30
LFB	Carbophenothion	28.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	26.6	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	26.7	LCS	P	0 - 30
LFB	Cyanazine	29.5	LCS	P	0 - 30
LFB	Demeton	24.6	LCS	P	0 - 30
LFB	Diazinon	29.2	LCS	P	0 - 30
LFB	Dimethenamid	28.2	LCS	P	0 - 30
LFB	Disulfoton	36.7	LCS	F	0 - 30
LFB	Dithiopyr	27.2	LCS	P	0 - 30
LFB	EPTC	17.2	LCS	P	0 - 30
LFB	Ethion	25.6	LCS	P	0 - 30
LFB	Ethoprop	27.8	LCS	P	0 - 30
LFB	Fenamiphos	22.3	LCS	P	0 - 30
LFB	Fipronil	27.7	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	28.4	LCS	P	0 - 30
LFB	Fipronil Sulfide	31.1	LCS	F	0 - 30
LFB	Fipronil Sulfone	27.7	LCS	P	0 - 30
LFB	Flumioxazin	25.3	LCS	P	0 - 30
LFB	Fonofos	26.6	LCS	P	0 - 30
LFB	Hexazinone	28.1	LCS	P	0 - 30
LFB	Imazalil	21.8	LCS	P	0 - 30
LFB	Malathion	25.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P386897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metalaxyl	28.4	LCS	P	0 - 30
LFB	Metolachlor	28.8	LCS	P	0 - 30
LFB	Metribuzin	27.8	LCS	P	0 - 30
LFB	Mevinphos	26.7	LCS	P	0 - 30
LFB	Molinate	20.9	LCS	P	0 - 30
LFB	Naled	17.8	LCS	P	0 - 30
LFB	Norflurazon	27.3	LCS	P	0 - 30
LFB	Oxadiazon	28.1	LCS	P	0 - 30
LFB	Parathion Ethyl	25.7	LCS	P	0 - 30
LFB	Parathion Methyl	28.9	LCS	P	0 - 30
LFB	Pendimethalin	35.7	LCS	F	0 - 30
LFB	Phorate	29.0	LCS	P	0 - 30
LFB	Prodiamine	33.9	LCS	F	0 - 30
LFB	Prometon	35.7	LCS	F	0 - 30
LFB	Prometryn	29.9	LCS	P	0 - 30
LFB	Pronamide	27.4	LCS	P	0 - 30
LFB	Propiconazole	24.2	LCS	P	0 - 30
LFB	Simazine	39.8	LCS	F	0 - 30
LFB	Sulfentrazone	27.4	LCS	P	0 - 30
LFB	Tebuconazole	23.4	LCS	P	0 - 30
LFB	Terbufos	26.4	LCS	P	0 - 30
LFB	Terbutylazine	33.9	LCS	F	0 - 30

Reference Method: EPA 8276
Batch ID: P386881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2194235	Chlordane	12.2	Spike	P	0 - 30
2194235	Toxaphene	3.07	Spike	P	0 - 30
LFB	Chlordane	2.42	LCS	P	0 - 30
LFB	Toxaphene	1.89	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P386810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193261	3-Hydroxycarbofuran	0.765	Spike	P	0 - 30
2193261	Aldicarb	15.6	Spike	P	0 - 30
2193261	Aldicarb Sulfone	1.97	Spike	P	0 - 30
2193261	Aldicarb Sulfoxide	0.774	Spike	P	0 - 30
2193261	Carbaryl	6.63	Spike	P	0 - 30
2193261	Carbofuran	0.538	Spike	P	0 - 30
2193261	Methiocarb	2.70	Spike	P	0 - 30
2193261	Methomyl	1.08	Spike	P	0 - 30
2193261	Oxamyl	1.49	Spike	P	0 - 30
2193261	Propoxur	3.92	Spike	P	0 - 30
2193354	2,4-D	3.11	Spike	P	0 - 30
2193354	Acetaminophen	5.28	Spike	P	0 - 30
2193354	Acetamiprid	1.62	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P386810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193354	Afidopyropen	0.775	Spike	P	0 - 30
2193354	Bentazon	4.84	Spike	P	0 - 30
2193354	Benzovindiflupyr	2.40	Spike	P	0 - 30
2193354	Carbamazepine	4.85	Spike	P	0 - 30
2193354	Clothianidin	2.53	Spike	P	0 - 30
2193354	Dinotefuran	4.79	Spike	P	0 - 30
2193354	Diuron	2.22	Spike	P	0 - 30
2193354	Fenuron	5.91	Spike	P	0 - 30
2193354	Fluridone	17.2	Spike	P	0 - 30
2193354	Hydrocodone	8.37	Spike	P	0 - 30
2193354	Ibuprofen	15.8	Spike	P	0 - 30
2193354	Imazapyr	7.74	Spike	P	0 - 30
2193354	Imidacloprid	6.78	Spike	P	0 - 30
2193354	Linuron	2.58	Spike	P	0 - 30
2193354	Mandestrobin	7.03	Spike	P	0 - 30
2193354	MCPP	0.860	Spike	P	0 - 30
2193354	Naproxen	24.9	Spike	P	0 - 30
2193354	Primidone	3.13	Spike	P	0 - 30
2193354	Pyraclostrobin	1.77	Spike	P	0 - 30
2193354	Thiamethoxam	1.14	Spike	P	0 - 30
2193354	Tolfenpyrad	6.96	Spike	P	0 - 30
2193354	Triclopyr	0.124	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P386879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193353	Acesulfame K	2.76	Spike	P	0 - 30
2193353	AMPA	5.28	Spike	P	0 - 30
2193353	Endothall	16.4	Spike	P	0 - 30
2193353	Glufosinate	17.7	Spike	P	0 - 30
2193353	Glyphosate	6.17	Spike	P	0 - 30
2193353	Sucralose	8.16	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P386832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193266	Color (true)	2.23	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P386894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193332	Total Alkalinity	0.147	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P387204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193613	TDS	3.79	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P386898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193332	Fluoride	0.461	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P387199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193341	Organic Carbon	0.353	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2193384
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	41.2	P	30 - 160

Lab Sample ID: 2193385
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	58.1	P	30 - 160
EPA 8321B	Diuron-d6	62.1	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.2	P	30 - 160
EPA 8321B	Primidone-d5	76.3	P	30 - 160
EPA 8321B	Sucralose-d6	90.5	P	30 - 160
EPA 8321B	Sucralose-d6	90.5	P	30 - 160

Lab Sample ID: 2193386
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	79.9	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	51.8	P	34 - 106
EPA 8276	Decachlorobiphenyl	42.9	P	26 - 97.0
EPA 8276	PCNB	101	P	38 - 141

Lab Sample ID: 2193387
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	96.6	P	72 - 135
EPA 8270E	Terbufos-d10	100	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100755

Included Lab Sample IDs: 2193379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100756

Included Lab Sample IDs: 2193381

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.6	98.2	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A100760

Included Lab Sample IDs: 2193379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.2	99.0	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100774

Included Lab Sample IDs: 2193380

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

Reference Method: EPA 8321B

Run ID: A100781

Included Lab Sample IDs: 2193385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	109	104	P/P	50 - 150
3-Hydroxycarbofuran	111	118	P/P	60 - 150
Acetaminophen	142	128	P/P	60 - 160
Acetamiprid	142	138	P/P	50 - 150
Afidopyropen	123	109	P/P	50 - 150
Aldicarb	74.4	102	P/P	60 - 150
Aldicarb Sulfone	105	114	P/P	50 - 150
Aldicarb Sulfoxide	103	114	P/P	50 - 150
Bentazon	125	151	P/P	50 - 160
Benzovindiflupyr	116	133	P/P	50 - 150
Carbamazepine	135	131	P/P	60 - 150
Carbaryl	123	132	P/P	60 - 150
Carbofuran	132	138	P/P	50 - 150
Clothianidin	134	114	P/P	60 - 150
Dinotefuran	124	112	P/P	50 - 150
Diuron	137	142	P/P	60 - 160
Fenuron	127	128	P/P	60 - 150
Fluridone	110	118	P/P	60 - 160
Hydrocodone	132	121	P/P	60 - 150
Ibuprofen	103	63.9	P/P	50 - 160
Imazapyr	102	119	P/P	50 - 160
Imidacloprid	138	106	P/P	60 - 150
Linuron	131	138	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A100781
Included Lab Sample IDs: 2193385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mandestrobin	128	137	P/P	50 - 150
MCPD	123	112	P/P	50 - 150
Methiocarb	113	124	P/P	50 - 150
Methomyl	104	113	P/P	50 - 150
Naproxen	80.8	112	P/P	50 - 160
Oxamyl	108	118	P/P	50 - 150
Primidone	135	117	P/P	60 - 150
Propoxur	127	136	P/P	50 - 150
Pyraclostrobin	117	106	P/P	60 - 150
Thiamethoxam	137	123	P/P	50 - 150
Tolfenpyrad	117	105	P/P	60 - 150
Triclopyr	111	111	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A100801
Included Lab Sample IDs: 2193379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A100801
Included Lab Sample IDs: 2193379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A100818
Included Lab Sample IDs: 2193385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	84.3	81.3	P/P	60 - 160
Glufosinate	88.2	97.2	P/P	60 - 160
Glyphosate	101	110	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A100820
Included Lab Sample IDs: 2193380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A100834
Included Lab Sample IDs: 2193380

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A100837

Included Lab Sample IDs: 2193388

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	105	105	P/P	90 - 110
Calcium	103	104	P/P	90 - 110
Iron	104	105	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Zinc	106	107	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100843

Included Lab Sample IDs: 2193379

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

Reference Method: EPA 8270E

Run ID: A100881

Included Lab Sample IDs: 2193386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.0		P	80 - 120
Alpha-BHC	96.3		P	80 - 120
Alpha-Chlordane	97.5		P	80 - 120
Beta-BHC	94.8		P	80 - 120
Beta-Cyfluthrin	88.8		P	80 - 120
Bifenthrin	100		P	80 - 120
Chlorothalonil	95.0		P	80 - 120
Cis-Nonachlor	97.3		P	80 - 120
Cypermethrin	92.4		P	80 - 120
Dacthal	94.7		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	111		P	80 - 120
Delta-BHC	95.2		P	80 - 120
Deltamethrin	100		P	80 - 120
Dicofol	98.0		P	80 - 120
Dieldrin	98.0		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	94.6		P	80 - 120
Endosulfan Sulfate	97.5		P	80 - 120
Endrin	91.6		P	80 - 120
Endrin Aldehyde	92.2		P	80 - 120
Endrin Ketone	98.3		P	80 - 120
Ethalfuralin	98.8		P	80 - 120
Gamma-BHC	99.2		P	80 - 120
Gamma-Chlordane	95.9		P	80 - 120
Heptachlor	93.3		P	80 - 120
Heptachlor Epoxide	94.7		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Lambda-Cyhalothrin	90.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A100881
Included Lab Sample IDs: 2193386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Methoxychlor	102		P	80 - 120
Mirex	98.5		P	80 - 120
Permethrin	91.9		P	80 - 120
Phenothrin	92.9		P	80 - 120
Prallethrin	85.2		P	80 - 120
Trans-Nonachlor	98.3		P	80 - 120
Trifluralin	97.0		P	80 - 120

Reference Method: EPA 8321B
Run ID: A100901
Included Lab Sample IDs: 2193385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	82.1	65.6	P/P	60 - 160
Endothall	106	118	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A100906
Included Lab Sample IDs: 2193380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.9	93.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A100913
Included Lab Sample IDs: 2193388

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.9	95.2	P/P	90 - 110
Antimony	103	103	P/P	90 - 110
Arsenic	97.3	96.8	P/P	90 - 110
Boron	97.1	97.7	P/P	90 - 110
Cadmium	96.1	95.6	P/P	90 - 110
Chromium	99.4	99.3	P/P	90 - 110
Lead	96.1	96.4	P/P	90 - 110
Nickel	94.3	93.9	P/P	90 - 110
Selenium	98.5	98.4	P/P	90 - 110
Thallium	95.5	95.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A100945
Included Lab Sample IDs: 2193388

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

Reference Method: EPA 8321B
Run ID: A100956
Included Lab Sample IDs: 2193385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A100956
Included Lab Sample IDs: 2193385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	100	105	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A100982
Included Lab Sample IDs: 2193386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	108		P	80 - 120
Toxaphene	116		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A100993
Included Lab Sample IDs: 2193388

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	96.8	100	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A100994
Included Lab Sample IDs: 2193387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.4		P	80 - 120
Alachlor	94.5		P	80 - 120
Ametryn	93.7		P	80 - 120
Atrazine	98.3		P	80 - 120
Atrazine Desethyl	92.9		P	80 - 120
Azinphos Methyl	97.0		P	80 - 120
Bromacil	98.8		P	80 - 120
Butylate	97.7		P	80 - 120
Carbophenothion	100		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	98.0		P	80 - 120
Cyanazine	104		P	80 - 120
Demeton	98.8		P	80 - 120
Diazinon	97.3		P	80 - 120
Dimethenamid	96.1		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	97.4		P	80 - 120
EPTC	98.1		P	80 - 120
Ethion	97.1		P	80 - 120
Ethoprop	95.6		P	80 - 120
Fenamiphos	96.8		P	80 - 120
Fipronil	96.3		P	80 - 120
Fipronil Desulfinyl	97.8		P	80 - 120
Fipronil Sulfide	96.5		P	80 - 120
Fipronil Sulfone	95.3		P	80 - 120
Flumioxazin	102		P	80 - 120
Fonofos	99.2		P	80 - 120
Hexazinone	104		P	80 - 120
Imazalil	109		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A100994
 Included Lab Sample IDs: 2193387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Malathion	92.6		P	80 - 120
Metalaxyl	99.7		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	95.4		P	80 - 120
Mevinphos	92.6		P	80 - 120
Molinate	96.3		P	80 - 120
Naled	95.4		P	80 - 120
Norflurazon	96.4		P	80 - 120
Oxadiazon	100		P	80 - 120
Parathion Ethyl	98.8		P	80 - 120
Parathion Methyl	95.9		P	80 - 120
Pendimethalin	99.8		P	80 - 120
Phorate	94.6		P	80 - 120
Prodiamine	111		P	80 - 120
Prometon	95.3		P	80 - 120
Prometryn	99.5		P	80 - 120
Pronamide	96.6		P	80 - 120
Propiconazole	101		P	80 - 120
Simazine	109		P	80 - 120
Sulfentrazone	91.5		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	97.4		P	80 - 120
Terbutylazine	99.0		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A101032
 Included Lab Sample IDs: 2193380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	106	105	P/P	85 - 115

* 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						6.30	
EPA 200.7 Rev. 4.4	Barium	107		109	105			3.73
	Calcium	109		107				2.38
	Iron	110		110	108			2.15
	Magnesium	108		107				1.93
	Potassium	105		103	100			1.89
	Sodium	105		103				2.42
	Zinc	108		112	109			2.66
EPA 200.8 Rev. 5.4	Aluminum	94.0		83.0	92.7			5.01
	Antimony	101		100	102			1.70
	Arsenic	97.9		99.0	101			1.75
	Boron	98.9		97.0	99.4			1.87
	Cadmium	97.9		100	102			1.65
	Chromium	102		103	105			1.85
	Copper	102		102	101			0.768
	Lead	99.2		98.0	101			2.64
	Nickel	94.8		92.9	94.6			1.70
	Selenium	96.9		97.1	98.2			1.14
	Silver	106		104	106			1.44
	Thallium	99.9		104	107			3.23
EPA 300.0 Rev. 2.1	Chloride	101		102	99.7		1.74	
	Sulfate	99.0		100	97.9		1.16	
EPA 350.1 Rev. 2.0	Ammonia-N	101		97.3	100			2.39
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106						0.258
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102		97.0	97.0			0.0
EPA 365.1 Rev. 2.0	Total-P	109						0.154
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.5						0.0
EPA 8270E	Acetochlor	99.1	77.0	67.3	88.8	25.1		27.5
	Alachlor	102	77.7	80.5	92.7	26.6		14.0
	Aldrin	36.8	47.3	51.4	50.0	24.9		2.73
	Alpha-BHC	72.1	77.0	75.5	76.5	6.59		1.26
	Alpha-Chlordane	66.4	75.4	74.6	73.0	12.7		2.23
	Ametryn	101	91.5	147	150	10.3		2.35
	Atrazine	104	74.0	64.7	109	34.0		33.0
	Atrazine Desethyl	90.0	60.4	59.1	81.4	39.3		31.7
	Azinphos Methyl	109	99.9	80.4	89.0	8.54		10.1
	Beta-BHC	86.5	80.8	82.4	89.7	6.82		8.44
	Beta-Cyfluthrin	69.3	74.9	74.8	75.6	7.76		1.18
	Bifenthrin	67.6	76.7	81.3	75.4	12.6		7.49
	Bromacil	99.0	67.3	53.9	88.8	38.2		25.9
	Butylate	74.2	60.0	52.0	62.2	21.1		17.9
	Carbophenothion	146	109	97.7	120	28.4		20.5
	Chlorothalonil	83.2	71.5	79.3	87.1	15.1		9.28
	Chlorpyrifos Ethyl	142	108	93.0	117	26.6		22.9
	Chlorpyrifos Methyl	145	111	97.7	132	26.7		29.7
	Cis-Nonachlor	71.3	81.5	78.5	76.7	13.3		2.41
	Cyanazine	133	98.5	84.0	101	29.5		18.2
	Cypermethrin	76.2	88.7	85.3	85.2	15.1		0.0905
	Dacthal	80.1	85.0	81.6	88.0	5.93		7.64
	DDD-p,p'	76.7	85.5	83.5	82.7	10.9		0.939
	DDE-p,p'	64.4	75.1	74.6	71.7	15.3		3.92
	DDT-p,p'	97.2	80.9	76.8	83.2	18.4		7.99
	Delta-BHC	105	101	122	110	3.35		10.0
	Deltamethrin	91.1	91.9	91.8	82.5	0.858		10.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Demeton	138	108	108	128	24.6	17.4
	Diazinon	96.3	71.8	66.0	88.4	29.2	29.1
	Dicofol	87.3	84.8	65.2	95.1	2.82	37.4
	Dieldrin	69.7	77.0	76.9	77.7	9.95	0.965
	Dimethenamid	100	75.5	68.3	88.4	28.2	25.6
	Disulfoton	122	83.9	114	158	36.7	32.6
	Dithiopyr	87.1	66.2	46.6	48.2	27.2	3.48
	Endosulfan I	73.8	80.2	77.9	79.8	8.37	2.41
	Endosulfan II	83.4	95.1	84.6	88.4	13.2	4.39
	Endosulfan Sulfate	90.2	88.5	99.7	94.4	1.86	5.51
	Endrin	72.0	77.5	80.6	82.6	7.37	2.43
	Endrin Aldehyde	72.2	88.9	81.0	70.6	20.7	13.7
	Endrin Ketone	83.6	92.0	88.7	90.2	9.64	1.65
	EPTC	68.1	57.3	49.5	59.3	17.2	17.9
	Ethalfuralin	58.3	68.3	67.5	66.7	15.8	1.16
	Ethion	117	90.5	78.2	93.4	25.6	17.6
	Ethoprop	134	101	104	141	27.8	29.9
	Fenamiphos	150	120	102	117	22.3	14.2
	Fipronil	104	78.9			27.7	29.2
	Fipronil Desulfinyl	103	77.5	65.0	87.7	28.4	25.1
	Fipronil Sulfide	96.6	70.6			31.1	29.0
	Fipronil Sulfone	116	87.9			27.7	25.8
	Flumioxazin	201	156	154	210	25.3	28.2
	Fonofos	120	92.1	91.0	118	26.6	25.9
	Gamma-BHC	84.5	85.8	90.9	95.8	1.54	5.20
	Gamma-Chlordane	62.9	71.3	71.1	69.2	12.5	2.64
	Heptachlor	50.1	58.4	59.9	56.0	15.3	6.78
	Heptachlor Epoxide	70.4	77.7	81.9	85.4	9.74	4.17
	Hexachlorobenzene	46.4	53.4	60.4	52.7	14.1	13.7
	Hexazinone	102	76.8	66.2	88.6	28.1	26.6
	Imazalil	122	98.2	212	267	21.8	23.1
	Lambda-Cyhalothrin	66.3	76.6	77.1	74.9	14.4	2.82
	Malathion	184	142	127	164	25.8	25.1
	Metalaxyl	96.2	72.2	65.3	86.8	28.4	28.3
	Methoxychlor	78.8	84.4	72.5	84.7	6.92	15.5
	Metolachlor	89.0	66.6	56.5	75.0	28.8	28.1
	Metribuzin	112	84.5	80.3	106	27.8	27.8
	Mevinphos	123	93.8	108	155	26.7	35.3
	Mirex	50.3	60.8	66.1	61.0	18.8	7.95
	Molinate	80.2	65.0	63.1	79.1	20.9	22.5
	Naled	92.6	77.5	74.7	96.4	17.8	25.4
	Norflurazon	95.4	72.5	62.0	79.1	27.3	24.2
	Oxadiazon	89.8	67.6	45.1	55.2	28.1	20.1
	Parathion Ethyl	98.1	75.7	76.1	100	25.7	27.4
	Parathion Methyl	114	85.2	91.0	120	28.9	27.3
	Pendimethalin	60.8	42.4	51.3	71.6	35.7	33.0
	Permethrin	66.7	77.5	78.4	74.7	14.9	4.77
	Phenothrin	53.5	62.9	67.7	65.4	16.0	3.52
	Phorate	115	85.6	109	82.4	29.0	27.3
	Prallethrin	53.0	63.8	56.8	55.4	18.5	2.53
	Prodiamine	52.0	37.0	50.2	69.0	33.9	31.6
	Prometon	90.6	63.2	70.9	96.5	35.7	30.5
	Prometryn	110	81.2	64.3	79.8	29.9	21.6
	Pronamide	121	92.0	83.0	127	27.4	41.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Propiconazole	89.7	70.4	50.0	80.8	24.2	25.6
	Simazine	85.5	57.1	51.2	69.4	39.8	30.2
	Sulfentrazone	96.1	72.9	54.3	87.9	27.4	28.9
	Tebuconazole	57.0	45.1			23.4	18.8
	Terbufos	120	91.9	99.6	133	26.4	28.8
	Terbutylazine	99.4	70.6	67.8	93.2	33.9	31.5
	Trans-Nonachlor	58.9	71.8	69.8	68.4	19.8	1.99
	Trifluralin	59.8	67.3	69.3	66.7	11.8	3.86
EPA 8276	Chlordane	93.4	95.7	105	119	2.42	12.2
	Toxaphene	96.4	98.2	241	233	1.89	3.07
EPA 8321B	2,4-D	89.1		88.1	91.3		3.11
	3-Hydroxycarbofuran	83.7		68.4	68.9		0.765
	Acesulfame K	72.7		29.8	29.0		2.76
	Acetaminophen	92.7		77.5	81.7		5.28
	Acetamiprid	75.6		67.1	68.2		1.62
	Afidopyropen	56.9		53.5	53.1		0.775
	Aldicarb	71.3		48.5	56.7		15.6
	Aldicarb Sulfone	97.4		85.0	86.7		1.97
	Aldicarb Sulfoxide	98.1		41.8	41.5		0.774
	AMPA	84.7		48.6	42.7		5.28
	Bentazon	75.0		46.3	39.6		4.84
	Benzovindiflupyr	71.8		64.8	63.2		2.40
	Carbamazepine	64.1		53.9	56.6		4.85
	Carbaryl	68.4		52.7	56.4		6.63
	Carbofuran	55.8		49.4	49.7		0.538
	Clothianidin	89.3		59.9	61.4		2.53
	Dinotefuran	100		78.8	83.2		4.79
	Diuron	66.9		54.1	52.8		2.22
	Endothall	107		90.2	106		16.4
	Fenuron	105		68.2	72.4		5.91
	Fluridone	77.3		75.4	94.7		17.2
	Glufosinate	100		182	152		17.7
	Glyphosate	108		510	446		6.17
	Hydrocodone	93.4		64.7	70.3		8.37
	Ibuprofen	77.7		71.2	83.5		15.8
	Imazapyr	80.5					7.74
	Imidacloprid	105		109	118		6.78
	Linuron	75.9		67.1	68.9		2.58
	Mandestrobin	77.5		70.5	75.6		7.03
	MCPP	101		110	111		0.860
	Methiocarb	55.8		52.3	53.8		2.70
	Methomyl	94.7		88.0	87.0		1.08
	Naproxen	47.6		63.2	49.2		24.9
	Oxamyl	93.2		80.3	81.5		1.49
	Primidone	87.0		76.8	79.3		3.13
	Propoxur	60.6		49.2	51.2		3.92
	Pyraclostrobin	57.6		60.2	59.1		1.77
	Sucralose	104		22.1	19.2		8.16
	Thiamethoxam	90.6		72.7	71.8		1.14
	Tolfenpyrad	44.7		48.2	51.7		6.96
	Triclopyr	63.1		87.4	87.5		0.124
SM 2120 B-2011	Color (true)	95.9				2.23	
SM 2320 B-2011	Total Alkalinity	100				0.147	
SM 2540 C-2011	TDS					3.79	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
SM 4500 F-C-2011	Fluoride	99.2	100 99.8			0.461
SM 5310 B-2011	Organic Carbon	98.6	96.6			0.353

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2193379
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2193388
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2193388
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2193379
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2193379
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2193380
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2193380
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2193380
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2193380
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2193381
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2193386
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2193387
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2193386
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2193384
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2193385
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2193385
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2193379
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2193379
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2193388
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2193379
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2193379
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2193379
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2193380

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	09/01/2020			09/01/2020 14:24	Yen Ta	2193379
EPA 200.7 Rev. 4.4	09/01/2020	09/02/2020 13:20	Elliott D. Healy	09/04/2020 17:25	Betina Topolski	2193388
EPA 200.8 Rev. 5.4	09/01/2020	09/02/2020 13:20	Elliott D. Healy	09/10/2020 23:07	Alexander Thompson	2193388
	09/01/2020	09/02/2020 13:20	Elliott D. Healy	09/11/2020 17:54	Alexander Thompson	2193388
	09/01/2020	09/14/2020 15:10	Elliott D. Healy	09/15/2020 18:15	Alexander Thompson	2193388
EPA 300.0 Rev. 2.1	09/01/2020			09/05/2020 13:57	Julia Storbeck	2193379
EPA 350.1 Rev. 2.0	09/01/2020			09/06/2020 11:33	Ping Hua	2193380
EPA 351.2 Rev. 2.0	09/01/2020	09/03/2020 09:45	Sima Feizi	09/04/2020 09:57	Elliott Rodriguez	2193380
EPA 353.2 Rev. 2.0	09/01/2020			09/02/2020 09:44	Beverly Y. Sanders	2193380
EPA 365.1 Rev. 2.0	09/01/2020	09/03/2020 15:02	Lipi Saha	09/16/2020 18:55	Benjamin T. Nordmann	2193380
EPA 365.1 Rev. 2.0 dissolved	09/01/2020			09/01/2020 15:48	Samantha Davila	2193381
EPA 8270E	09/01/2020	09/04/2020 08:00	Fe-Val Siddell	09/09/2020 01:31	Michael Poppell	2193386
	09/01/2020	09/04/2020 08:30	Rasheda Ghaffari	09/11/2020 17:12	Vandana T. Nagar	2193387
EPA 8276	09/01/2020	09/04/2020 08:00	Fe-Val Siddell	09/15/2020 09:31	Arthur Maknenko	2193386
EPA 8321B	09/01/2020	09/02/2020 14:30	Hoor Shaik	09/02/2020 18:42	Mohammad Ghaffari	2193384
	09/01/2020	09/02/2020 14:30	Hoor Shaik	09/03/2020 03:23	Mohammad Ghaffari	2193385
	09/01/2020	09/03/2020 10:00	Rebecca Ware	09/03/2020 12:17	Rebecca Ware	2193385
	09/01/2020	09/03/2020 10:00	Rebecca Ware	09/04/2020 13:12	Rebecca Ware	2193385
	09/01/2020	09/03/2020 10:00	Rebecca Ware	09/10/2020 13:14	Rebecca Ware	2193385
SM 2120 B-2011	09/01/2020			09/01/2020 15:32	Benjamin T. Nordmann	2193379
SM 2320 B-2011	09/01/2020			09/02/2020 18:34	Dale L. Simmons	2193379
SM 2340B	09/01/2020			09/04/2020 17:25	Betina Topolski	2193388
SM 2540 C-2011	09/01/2020			09/03/2020 15:01	Yijie Li	2193379
SM 2540 D-2011	09/01/2020			09/03/2020 15:01	Yijie Li	2193379
SM 4500 F-C-2011	09/01/2020			09/02/2020 18:34	Dale L. Simmons	2193379
SM 5310 B-2011	09/01/2020			09/09/2020 22:36	David Boose	2193380