

Chemical Analysis Report

SW-DIST-2020-03-04-01

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

Event Description: **Run 14 Cedar Creek**

Request ID: **RQ-2020-03-02-64**

Customer: **SW-DIST**

Project ID: **SMP**

Send Reports to:

FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

For additional information please contact

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

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 25-MAR-2020 10:21



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: Cedar Creek above Patricia Ave

Collection Date/Time: 03/03/2020 12:30

Field ID: G5SW0147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161910	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P380053	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P380343	
		Sulfate	25		mg SO4/L	P380345	
	SM 2120 B-2011	Color (true)	70		PCU	P380127	
	SM 2320 B-2011	Total Alkalinity	122		mg CaCO3/L	P380270	
	SM 2540 C-2011	TDS	392	A	mg/L	P380756	
	SM 2540 D-2011	TSS	3	IA	mg/L	P380546	
	SM 4500 F-C-2011	Fluoride	0.32		mg F/L	P380274	
2161911	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P380606	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P380115	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P380285	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P380308	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P380170	
2161912	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.069		mg P/L	P380062	
2161915	EPA 8321B	Aldicarb	0.020	U	ug/L	P379970	
		Aldicarb Sulfone	0.0020	U	ug/L	P379970	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P379970	
		Carbaryl	0.0020	U	ug/L	P379970	
		Carbofuran	0.0020	U	ug/L	P379970	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P379970	
		Methiocarb	0.0020	U	ug/L	P379970	
		Methomyl	0.0020	U	ug/L	P379970	
		Oxamyl	0.0020	U	ug/L	P379970	
		Propoxur	0.0020	U	ug/L	P379970	
		2,4-D	0.0040	I	ug/L	P380128	
		Acesulfame K**	0.10	UJ	ug/L	P380189	MS
2161916		AMPA**	0.60		ug/L	P380189	
		Sucralose**	0.83		ug/L	P380189	
		Acetaminophen**	0.0080	U	ug/L	P380128	
		Acetamiprid**	0.0020	U	ug/L	P380128	
		Endothall**	0.25	U	ug/L	P380189	
		Glufosinate**	0.10	U	ug/L	P380189	
		Glyphosate**	1.5		ug/L	P380189	
		Afidopyrophen**	0.0020	UJ	ug/L	P380128	
		Bentazon	0.21		ug/L	P380128	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P380128	
		Carbamazepine**	0.0015	I	ug/L	P380128	
		Clothianidin**	0.0083		ug/L	P380128	
		Dinotefuran**	0.0036	I	ug/L	P380128	
		Diuron	0.0021	I	ug/L	P380128	
		Fenuron	0.016	U	ug/L	P380128	
		Fluridone**	0.034		ug/L	P380128	
		Imazapyr**	0.16		ug/L	P380128	

Field ID: G5SW0147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161916	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P380128	
		Ibuprofen**	0.020	U	ug/L	P380128	
		Imidacloprid	0.073		ug/L	P380128	
		Linuron	0.0040	U	ug/L	P380128	
		Mandestrobin**	0.0020	UJ	ug/L	P380128	
		MCP	0.0020	U	ug/L	P380128	
		Naproxen**	0.0080	U	ug/L	P380128	RPD
		Primidone**	0.017		ug/L	P380128	
		Pyraclostrobin**	0.0020	U	ug/L	P380128	
		Thiamethoxam**	0.0020	U	ug/L	P380128	
		Tolfenpyrad**	0.0020	U	ug/L	P380128	
		Triclopyr**	0.0040	U	ug/L	P380128	
2161917	EPA 8270E	Aldrin	4.1	U	ng/L	P380158	
		Alpha-BHC	2.0	U	ng/L	P380158	
		Alpha-Chlordane	1.0	U	ng/L	P380158	
		Beta-BHC	10	U	ng/L	P380158	
		Beta-Cyfluthrin**	15	U	ng/L	P380158	
		Bifenthrin**	4.1	U	ng/L	P380158	
		Delta-BHC	8.2	U	ng/L	P380158	
		Gamma-BHC	8.2	U	ng/L	P380158	
		Chlorothalonil	2.0	U	ng/L	P380158	RPD
		Cis-Nonachlor**	1.0	U	ng/L	P380158	
		Cypermethrin	20	U	ng/L	P380158	
		Dacthal**	1.0	U	ng/L	P380158	
		DDD-p,p'	6.1	U	ng/L	P380158	
		DDE-p,p'	6.1	U	ng/L	P380158	
		DDT-p,p'	7.2	U	ng/L	P380158	
		Dicofol	31	UJ	ng/L	P380158	LCS, MS
		Dieldrin	4.1	U	ng/L	P380158	
		Endosulfan I	4.1	U	ng/L	P380158	
		Endosulfan II	4.1	U	ng/L	P380158	
		Endosulfan Sulfate	2.0	U	ng/L	P380158	
		Endrin	2.0	U	ng/L	P380158	
		Endrin Aldehyde	2.0	U	ng/L	P380158	
		Endrin Ketone	2.0	U	ng/L	P380158	
		Ethalfuralin**	3.1	U	ng/L	P380158	
		Gamma-Chlordane	1.0	U	ng/L	P380158	
		Heptachlor	1.5	U	ng/L	P380158	
		Heptachlor Epoxide	2.0	U	ng/L	P380158	
		Hexachlorobenzene	2.0	U	ng/L	P380158	
		Lambda-Cyhalothrin**	15	U	ng/L	P380158	
		Methoxychlor	4.1	U	ng/L	P380158	
		Mirex	2.0	U	ng/L	P380158	
		Permethrin	10	U	ng/L	P380158	
		Phenothrin**	31	UJ	ng/L	P380158	LCS

Field ID: G5SW0147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161917	EPA 8270E	Prallethrin**	31	U	ng/L	P380158	
		Trans-Nonachlor**	1.0	U	ng/L	P380158	
		Trifluralin	2.6	U	ng/L	P380158	
		Chlordane	6.5	I	ng/L	P380158	MS
		Toxaphene	31	UJ	ng/L	P380158	LCS
2161918	EPA 8270E	Acetochlor	0.24	U	ng/L	P380360	
		Alachlor	0.24	U	ng/L	P380360	
		Ametryn	3.4		ng/L	P380360	
		Atrazine	530		ng/L	P380360	
		Atrazine Desethyl	28		ng/L	P380360	
		Azinphos Methyl	1.9	U	ng/L	P380360	
		Bromacil	2.5		ng/L	P380360	
		Butylate	0.38	U	ng/L	P380360	
		Carbophenothion	0.47	U	ng/L	P380360	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P380360	
		Chlorpyrifos Methyl	0.047	U	ng/L	P380360	
		Cyanazine	3.1	U	ng/L	P380360	
		Demeton	1.4	U	ng/L	P380360	
		Diazinon	0.12	U	ng/L	P380360	
		Dimethenamid**	0.095	U	ng/L	P380360	
		Disulfoton	0.47	U	ng/L	P380360	
		Dithiopyr**	0.70		ng/L	P380360	
		EPTC	1.2	UJ	ng/L	P380360	RPD
		Ethion	0.14	UJ	ng/L	P380360	RPD
		Ethoprop	0.095	U	ng/L	P380360	
		Fenamiphos	0.47	U	ng/L	P380360	
		Fipronil	0.83	I	ng/L	P380360	
		Fipronil Desulfinyl**	0.90		ng/L	P380360	
		Fipronil Sulfide	1.6		ng/L	P380360	
		Fipronil Sulfone	3.7		ng/L	P380360	
		Flumioxazin**	1.7	UJ	ng/L	P380360	MS, RPD
		Fonofos	0.19	U	ng/L	P380360	
		Hexazinone	0.47	U	ng/L	P380360	
		Imazalil**	0.71	U	ng/L	P380360	
		Malathion	0.33	U	ng/L	P380360	
		Metalaxyl	0.71	U	ng/L	P380360	
		Metolachlor	0.47	U	ng/L	P380360	
		Metribuzin	3.1	U	ng/L	P380360	
		Mevinphos	0.47	U	ng/L	P380360	
		Molinate	0.28	U	ng/L	P380360	
		Naled**	1.4	UJ	ng/L	P380360	RPD
		Norflurazon	0.47	U	ng/L	P380360	
		Oxadiazon**	2.3		ng/L	P380360	
		Parathion Ethyl	0.24	UJ	ng/L	P380360	LCS, RPD
		Parathion Methyl	0.52	UJ	ng/L	P380360	LCS, RPD

Field ID: G5SW0147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161918	EPA 8270E	Pendimethalin	0.95	UJ	ng/L	P380360	LCS, RPD
		Phorate	0.24	U	ng/L	P380360	
		Prodiamine**	0.17	IJ	ng/L	P380360	LCS, RPD
		Prometon	1.4	I	ng/L	P380360	
		Prometryn	0.19	U	ng/L	P380360	
		Pronamide**	0.14	U	ng/L	P380360	
		Propiconazole**	2.8		ng/L	P380360	
		Simazine	21		ng/L	P380360	
		Sulfentrazone**	16	J	ng/L	P380360	LCS, MS
		Tebuconazole**	0.47	UJ	ng/L	P380360	RPD
		Terbufos	0.095	U	ng/L	P380360	
		Terbuthylazine	0.40	U	ng/L	P380360	
2161919	EPA 200.7 Rev. 4.4	Barium	29.4		ug/L	P380202	
		Calcium	62.7		mg/L	P380202	
		Iron	980		ug/L	P380202	
		Magnesium	6.89		mg/L	P380202	
		Potassium	4.4		mg/L	P380202	
		Sodium	61.4		mg/L	P380202	
	EPA 200.8 Rev. 5.4	Zinc	5.2	I	ug/L	P380202	
		Aluminum	67		ug/L	P380202	
		Antimony	0.23		ug/L	P380202	
		Arsenic	2.80		ug/L	P380202	
		Boron**	71.6		ug/L	P380202	
		Cadmium	0.020	U	ug/L	P380202	
		Chromium	0.96	I	ug/L	P380202	
		Copper	1.01		ug/L	P380202	
		Lead	0.20	U	ug/L	P380202	
		Nickel	1.0	I	ug/L	P380202	
		Selenium	0.20	U	ug/L	P380202	
		Silver	0.010	U	ug/L	P380202	
		Thallium	0.10	U	ug/L	P380202	
	SM 2340B	Hardness	185		mg/L	P380202	

Ref. Method and Comment:

SM 2540 D-2011: 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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

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.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380053

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380202

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: P380202

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: P380343

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380345

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380606

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: P380115

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380285

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380308

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380062

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

Reference Method: EPA 8270E
Batch ID: P380158

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
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'	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
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P380158

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

Reference Method: EPA 8270E

Batch ID: P380360

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P380360

Component	Result	Code	Units
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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P380158

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

Reference Method: EPA 8321B

Batch ID: P379970

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: P380128

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P380128

Component	Result	Code	Units
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: EPA 8321B

Batch ID: P380189

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: P380127

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P380270

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

Reference Method: SM 2540 C-2011

Batch ID: P380756

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P380546

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P380170

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: P380202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.2		P	85 - 115
Calcium	102		P	85 - 115
Iron	100		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	98.7		P	85 - 115
Sodium	99.6		P	85 - 115
Zinc	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.4		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	98.6		P	85 - 115
Boron	99.4		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	98.8		P	85 - 115
Copper	98.1		P	85 - 115
Lead	95.8		P	85 - 115
Nickel	96.3		P	85 - 115
Selenium	94.0		P	85 - 115
Silver	94.1		P	85 - 115
Thallium	99.1		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380343

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380345

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380606

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380115

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380285

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: P380308

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380062

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

Reference Method: EPA 8270E
Batch ID: P380158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	31.3	35.1	P/P	20 - 87.0
Alpha-BHC	83.9	83.0	P/P	65 - 142
Alpha-Chlordane	74.0	72.7	P/P	58 - 106
Beta-BHC	94.7	95.3	P/P	65 - 179
Beta-Cyfluthrin	71.1	62.0	P/P	50 - 150
Bifenthrin	78.4	79.0	P/P	38 - 128
Chlorothalonil	77.7	73.5	P/P	20 - 214
Cis-Nonachlor	81.6	81.6	P/P	56 - 113
Cypermethrin	76.5	74.0	P/P	37 - 130
Dacthal	88.2	88.7	P/P	50 - 150
DDD-p,p'	90.0	90.8	P/P	66 - 119
DDE-p,p'	77.5	77.6	P/P	53 - 108
DDT-p,p'	72.1	72.1	P/P	57 - 133
Delta-BHC	95.2	91.6	P/P	68 - 187
Dicofol	62.0	65.9	F/F	66 - 123
Dieldrin	88.0	83.9	P/P	65 - 111
Endosulfan I	85.6	83.1	P/P	65 - 115
Endosulfan II	94.0	90.3	P/P	68 - 133
Endosulfan Sulfate	90.6	90.4	P/P	62 - 127
Endrin	95.7	95.8	P/P	64 - 122
Endrin Aldehyde	90.5	89.0	P/P	61 - 132
Endrin Ketone	94.1	94.0	P/P	66 - 120
Ethalfuralin	72.2	72.6	P/P	57 - 127
Gamma-BHC	82.9	84.0	P/P	71 - 158
Gamma-Chlordane	75.4	75.8	P/P	53 - 106
Heptachlor	67.2	66.8	P/P	45 - 96.0
Heptachlor Epoxide	83.9	85.6	P/P	64 - 109
Hexachlorobenzene	66.5	66.3	P/P	46 - 103
Lambda-Cyhalothrin	61.9	61.3	P/P	50 - 150
Methoxychlor	92.2	92.7	P/P	69 - 149
Mirex	56.1	56.2	P/P	31 - 90.0
Permethrin	69.3	70.3	P/P	41 - 108
Phenothrin	30.8	31.3	F/F	50 - 150
Prallethrin	46.4	46.5	P/P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P380158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trans-Nonachlor	73.0	71.6	P/P	50 - 107
Trifluralin	74.3	74.5	P/P	58 - 119

Reference Method: EPA 8270E
Batch ID: P380360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.2	96.7	P/P	71 - 122
Alachlor	92.4	96.7	P/P	70 - 121
Ametryn	102	101	P/P	49 - 137
Atrazine	99.5	104	P/P	76 - 125
Atrazine Desethyl	85.8	89.4	P/P	31 - 144
Azinphos Methyl	123	118	P/P	67 - 150
Bromacil	53.3	58.1	P/P	36 - 121
Butylate	56.7	69.4	P/P	33 - 88.0
Carbophenothion	86.6	94.1	P/P	50 - 150
Chlorpyrifos Ethyl	93.0	97.6	P/P	73 - 117
Chlorpyrifos Methyl	99.4	105	P/P	68 - 121
Cyanazine	122	117	P/P	20 - 250
Demeton	74.1	98.2	P/P	30 - 123
Diazinon	98.4	101	P/P	70 - 128
Dimethenamid	92.9	97.3	P/P	66 - 122
Disulfoton	71.9	95.4	P/P	46 - 124
Dithiopyr	85.8	91.1	P/P	69 - 122
EPTC	47.4	70.9	P/P	31 - 90.0
Ethion	62.7	66.5	P/P	45 - 135
Ethoprop	111	110	P/P	59 - 118
Fenamiphos	80.4	97.1	P/P	30 - 136
Fipronil	93.4	98.3	P/P	57 - 127
Fipronil Desulfinyl	99.5	102	P/P	51 - 122
Fipronil Sulfide	86.5	93.9	P/P	57 - 119
Fipronil Sulfone	69.9	74.5	P/P	51 - 119
Flumioxazin	115	127	P/P	70 - 200
Fonofos	93.0	97.6	P/P	60 - 120
Hexazinone	96.5	104	P/P	57 - 142
Imazalil	90.5	88.4	P/P	50 - 150
Malathion	114	117	P/P	67 - 128
Metalaxyl	95.8	98.3	P/P	21 - 148
Metolachlor	85.5	87.8	P/P	70 - 120
Metribuzin	111	124	P/P	20 - 253
Mevinphos	111	101	P/P	47 - 116
Molinate	68.7	81.7	P/P	41 - 99.0
Naled	41.6	60.6	P/P	40 - 130
Norflurazon	90.9	97.6	P/P	54 - 127
Oxadiazon	86.5	91.0	P/P	65 - 122
Parathion Ethyl	37.4	101	F/P	71 - 113
Parathion Methyl	46.3	111	F/P	73 - 129
Pendimethalin	20.2	88.8	F/P	63 - 130
Phorate	90.6	99.5	P/P	48 - 118
Prodiamine	6.82	69.6	F/P	20 - 144
Prometon	97.9	96.4	P/P	53 - 120
Prometryn	99.0	99.8	P/P	63 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P380360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pronamide	101	105	P/P	50 - 150
Propiconazole	84.0	87.7	P/P	50 - 150
Simazine	113	114	P/P	77 - 129
Sulfentrazone	13.1	14.5	F/F	50 - 150
Tebuconazole	37.7	39.8	P/P	20 - 118
Terbufos	93.2	103	P/P	61 - 119
Terbutylazine	96.5	98.1	P/P	75 - 119

Reference Method: EPA 8276
Batch ID: P380158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	111	112	P/P	47 - 119
Toxaphene	112	113	F/F	41 - 112

Reference Method: EPA 8321B
Batch ID: P379970

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	67.6		P	30 - 160
Aldicarb	48.6		P	30 - 160
Aldicarb Sulfone	76.4		P	30 - 160
Aldicarb Sulfoxide	74.4		P	30 - 160
Carbaryl	70.2		P	30 - 160
Carbofuran	66.6		P	30 - 160
Methiocarb	65.8		P	30 - 160
Methomyl	75.9		P	30 - 160
Oxamyl	78.1		P	30 - 160
Propoxur	64.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380128

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	127		P	30 - 160
Acetaminophen	109		P	30 - 160
Acetamiprid	91.6		P	30 - 160
Afidopyropen	81.1		P	30 - 160
Bentazon	89.6		P	30 - 160
Benzovindiflupyr	80.6		P	30 - 160
Carbamazepine	93.1		P	30 - 160
Clothianidin	93.9		P	30 - 160
Dinotefuran	114		P	30 - 160
Diuron	74.0		P	30 - 160
Fenuron	102		P	30 - 160
Fluridone	76.1		P	30 - 160
Hydrocodone	88.9		P	30 - 160
Ibuprofen	82.1		P	30 - 160
Imazapyr	93.5		P	30 - 160
Imidacloprid	99.2		P	30 - 160
Linuron	71.5		P	30 - 160
Mandestrobin	84.5		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P380128

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCP	120		P	30 - 160
Naproxen	102		P	30 - 160
Primidone	92.7		P	30 - 160
Pyraclostrobin	81.0		P	30 - 160
Thiamethoxam	95.3		P	30 - 160
Tolfenpyrad	40.0		P	30 - 160
Triclopyr	102		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	111		P	40 - 150
Endothall	89.9		P	40 - 150
Glufosinate	115		P	40 - 150
Glyphosate	118		P	40 - 140
Sucralose	94.9		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P380127

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.2		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P380270

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P380170

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161902	Barium	103		P	80 - 120
2161902	Calcium	100		P	80 - 120
2161902	Iron	102		P	80 - 120
2161902	Magnesium	103		P	80 - 120
2161902	Potassium	105		P	80 - 120
2161902	Sodium	99.1		P	80 - 120
2161902	Zinc	104		P	80 - 120
2161957	Barium	102	102	P/P	80 - 120
2161957	Calcium	100	99.7	P/P	80 - 120
2161957	Iron	102	102	P/P	80 - 120
2161957	Magnesium	102	103	P/P	80 - 120
2161957	Potassium	101	101	P/P	80 - 120
2161957	Sodium	99.2	98.4	P/P	80 - 120
2161957	Zinc	101	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161902	Aluminum	95.0		P	80 - 120
2161902	Antimony	100		P	80 - 120
2161902	Arsenic	97.9		P	80 - 120
2161902	Boron	102		P	80 - 120
2161902	Cadmium	102		P	80 - 120
2161902	Chromium	97.9		P	80 - 120
2161902	Copper	93.0		P	80 - 120
2161902	Lead	96.3		P	80 - 120
2161902	Nickel	99.3		P	80 - 120
2161902	Selenium	86.9		P	80 - 120
2161902	Silver	92.2		P	80 - 120
2161902	Thallium	102		P	80 - 120
2161957	Aluminum	93.9	95.2	P/P	80 - 120
2161957	Antimony	103	103	P/P	80 - 120
2161957	Arsenic	96.6	96.3	P/P	80 - 120
2161957	Boron	102	101	P/P	80 - 120
2161957	Cadmium	103	101	P/P	80 - 120
2161957	Chromium	97.8	98.4	P/P	80 - 120
2161957	Copper	95.6	95.9	P/P	80 - 120
2161957	Lead	96.8	96.1	P/P	80 - 120
2161957	Nickel	96.2	95.1	P/P	80 - 120
2161957	Selenium	93.2	92.7	P/P	80 - 120
2161957	Silver	93.3	94.1	P/P	80 - 120
2161957	Thallium	101	100	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161843	Chloride	98.1		P	90 - 110
2161920	Chloride	97.4		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380345

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161843	Sulfate	99.6		P	90 - 110
2161920	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161940	Ammonia-N	98.9	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161911	Kjeldahl Nitrogen	109	110	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161888	NO2NO3-N	94.4	94.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380308

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161853	Total-P	101	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161950	O-Phosphate-P	96.6	97.8	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P380158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162077	Aldrin	60.7	59.9	P/P	32 - 82.0
2162077	Alpha-BHC	87.6	86.1	P/P	68 - 157
2162077	Alpha-Chlordane	79.3	79.7	P/P	54 - 108
2162077	Beta-BHC	113	108	P/P	54 - 200
2162077	Beta-Cyfluthrin	85.7	85.2	P/P	50 - 150
2162077	Bifenthrin	101	101	P/P	49 - 124
2162077	Chlorothalonil	41.9	28.9	P/P	10 - 289
2162077	Cis-Nonachlor	83.5	83.6	P/P	53 - 112
2162077	Cypermethrin	97.9	101	P/P	43 - 141
2162077	Dacthal	89.0	87.6	P/P	50 - 150
2162077	DDD-p,p'	91.3	91.8	P/P	58 - 125
2162077	DDE-p,p'	77.8	77.8	P/P	50 - 108
2162077	DDT-p,p'	75.2	75.8	P/P	52 - 140
2162077	Delta-BHC	120	116	P/P	61 - 228
2162077	Dicofol	50.6	54.0	F/F	59 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P380158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162077	Dieldrin	87.4	89.2	P/P	57 - 121
2162077	Endosulfan I	99.6	86.3	P/P	62 - 123
2162077	Endosulfan II	101	98.8	P/P	48 - 163
2162077	Endosulfan Sulfate	107	106	P/P	63 - 132
2162077	Endrin	95.4	96.5	P/P	58 - 128
2162077	Endrin Aldehyde	94.3	90.3	P/P	44 - 126
2162077	Endrin Ketone	98.9	98.3	P/P	68 - 127
2162077	Ethalfuralin	78.7	79.3	P/P	55 - 131
2162077	Gamma-BHC	102	103	P/P	54 - 206
2162077	Gamma-Chlordane	77.6	76.9	P/P	52 - 105
2162077	Heptachlor	72.9	70.7	P/P	47 - 94.0
2162077	Heptachlor Epoxide	88.6	87.7	P/P	61 - 113
2162077	Hexachlorobenzene	68.3	67.0	P/P	45 - 100
2162077	Lambda-Cyhalothrin	84.4	85.5	P/P	50 - 150
2162077	Methoxychlor	86.3	86.5	P/P	63 - 153
2162077	Mirex	69.6	68.7	P/P	38 - 90.0
2162077	Permethrin	80.3	81.4	P/P	45 - 112
2162077	Phenothrin	67.0	68.1	P/P	50 - 150
2162077	Prallethrin	62.5	62.1	P/P	40 - 140
2162077	Trans-Nonachlor	73.6	73.6	P/P	50 - 103
2162077	Trifluralin	78.1	78.0	P/P	57 - 122

Reference Method: EPA 8270E
 Batch ID: P380360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161918	Acetochlor	89.1	87.1	P/P	68 - 126
2161918	Alachlor	86.7	88.5	P/P	66 - 125
2161918	Ametryn	115	91.0	P/P	31 - 182
2161918	Azinphos Methyl	130	127	P/P	54 - 162
2161918	Bromacil	75.5	77.8	P/P	34 - 144
2161918	Butylate	70.9	79.6	P/P	16 - 92.0
2161918	Carbophenothion	76.0	73.2	P/P	50 - 150
2161918	Chlorpyrifos Ethyl	104	84.2	P/P	63 - 124
2161918	Chlorpyrifos Methyl	94.6	91.1	P/P	64 - 125
2161918	Cyanazine	103	81.8	P/P	13 - 245
2161918	Demeton	116	114	P/P	20 - 154
2161918	Diazinon	97.9	96.7	P/P	66 - 141
2161918	Dimethenamid	107	81.4	P/P	50 - 130
2161918	Disulfoton	78.3	64.1	P/P	55 - 130
2161918	Dithiopyr	77.0	71.6	P/P	66 - 122
2161918	EPTC	75.2	79.7	P/P	15 - 93.0
2161918	Ethion	87.0	25.5	P/P	15 - 148
2161918	Ethoprop	123	125	P/P	59 - 126
2161918	Fenamiphos	68.8	74.2	P/P	39 - 137
2161918	Fipronil	84.2	75.3	P/P	47 - 131
2161918	Fipronil Desulfinyl	84.8	79.2	P/P	43 - 121
2161918	Fipronil Sulfide	77.1	66.8	P/P	29 - 134
2161918	Fipronil Sulfone	60.9	52.9	P/P	19 - 131
2161918	Flumioxazin	206	144	F/P	70 - 200
2161918	Fonofos	102	97.7	P/P	62 - 128
2161918	Hexazinone	97.4	106	P/P	58 - 154

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P380360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161918	Imazalil	79.8	76.3	P/P	50 - 150
2161918	Malathion	116	112	P/P	54 - 135
2161918	Metalaxyl	87.7	89.7	P/P	46 - 136
2161918	Metolachlor	79.5	76.3	P/P	62 - 126
2161918	Metribuzin	113	98.2	P/P	44 - 277
2161918	Mevinphos	131	105	P/P	44 - 135
2161918	Molinate	86.7	85.4	P/P	31 - 104
2161918	Naled	106	102	P/P	40 - 130
2161918	Norflurazon	78.8	74.6	P/P	32 - 134
2161918	Oxadiazon	71.9	61.5	P/P	55 - 123
2161918	Parathion Ethyl	100	98.3	P/P	67 - 120
2161918	Parathion Methyl	132	133	P/P	70 - 140
2161918	Pendimethalin	90.6	87.0	P/P	59 - 145
2161918	Phorate	106	103	P/P	52 - 127
2161918	Prodiamine	51.5	36.9	P/P	11 - 157
2161918	Prometon	87.1	82.9	P/P	55 - 130
2161918	Prometryn	92.7	87.9	P/P	55 - 127
2161918	Pronamide	106	106	P/P	50 - 150
2161918	Propiconazole	73.2	64.4	P/P	50 - 150
2161918	Sulfentrazone	64.3	47.0	P/F	50 - 150
2161918	Tebuconazole	27.1	14.1	P/P	10 - 122
2161918	Terbufos	110	109	P/P	65 - 131
2161918	Terbutylazine	98.9	100	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P380158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2163037	Chlordane	134	136	F/F	34 - 129
2163037	Toxaphene	117	116	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P379970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161211	3-Hydroxycarbofuran	71.9	62.1	P/P	30 - 160
2161211	Aldicarb	75.5	90.4	P/P	30 - 160
2161211	Aldicarb Sulfone	75.4	81.2	P/P	30 - 160
2161211	Aldicarb Sulfoxide	31.2	30.1	P/P	30 - 160
2161211	Carbaryl	58.8	60.0	P/P	30 - 160
2161211	Carbofuran	53.7	54.0	P/P	30 - 160
2161211	Methiocarb	60.6	63.6	P/P	30 - 160
2161211	Methomyl	72.1	69.4	P/P	30 - 160
2161211	Oxamyl	75.2	69.8	P/P	30 - 160
2161211	Propoxur	56.4	55.2	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P380128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161361	2,4-D	83.4	106	P/P	30 - 160
2161361	Acetaminophen	126	117	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P380128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161361	Acetamiprid	83.3	86.3	P/P	30 - 160
2161361	Afidopyropen	87.2	88.0	P/P	30 - 160
2161361	Bentazon	42.6	42.9	P/P	30 - 160
2161361	Benzovindiflupyr	86.6	80.7	P/P	30 - 160
2161361	Carbamazepine	73.9	74.2	P/P	30 - 160
2161361	Clothianidin	91.9	92.4	P/P	30 - 160
2161361	Dinotefuran	143	134	P/P	30 - 160
2161361	Diuron	65.1	61.0	P/P	30 - 160
2161361	Fenuron	77.1	74.8	P/P	30 - 160
2161361	Fluridone	79.9	65.1	P/P	30 - 160
2161361	Hydrocodone	88.4	85.6	P/P	30 - 160
2161361	Ibuprofen	78.2	67.9	P/P	30 - 160
2161361	Imidacloprid	157	145	P/P	30 - 160
2161361	Linuron	66.0	61.7	P/P	30 - 160
2161361	Mandestrobin	86.2	81.0	P/P	30 - 160
2161361	MCCP	125	104	P/P	30 - 160
2161361	Naproxen	105	68.3	P/P	30 - 160
2161361	Primidone	96.6	89.8	P/P	30 - 160
2161361	Pyraclostrobin	99.5	83.6	P/P	30 - 160
2161361	Thiamethoxam	138	136	P/P	30 - 160
2161361	Tolfenpyrad	47.2	46.0	P/P	30 - 160
2161361	Triclopyr	105	99.7	P/P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P380189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161916	Acesulfame K	21.9	22.4	F/F	40 - 150
2161916	AMPA	88.9	87.7	P/P	40 - 150
2161916	Endothall	102	126	P/P	40 - 150
2161916	Glufosinate	103	100	P/P	40 - 150
2161916	Glyphosate	71.1	83.7	P/P	40 - 140
2161916	Sucralose	73.4	47.3	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
 Batch ID: P380274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161886	Fluoride	103	105	P/P	89 - 106

Reference Method: SM 5310 B-2011
 Batch ID: P380170

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161936	Organic Carbon	99.3	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161966	Turbidity	8.89	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161957	Barium	0.0477	Spike	P	0 - 20
2161957	Calcium	0.189	Spike	P	0 - 20
2161957	Iron	0.0367	Spike	P	0 - 20
2161957	Magnesium	0.464	Spike	P	0 - 20
2161957	Potassium	0.406	Spike	P	0 - 20
2161957	Sodium	0.618	Spike	P	0 - 20
2161957	Zinc	0.276	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161957	Aluminum	1.12	Spike	P	0 - 20
2161957	Antimony	0.301	Spike	P	0 - 20
2161957	Arsenic	0.311	Spike	P	0 - 20
2161957	Boron	1.74	Spike	P	0 - 20
2161957	Cadmium	1.39	Spike	P	0 - 20
2161957	Chromium	0.663	Spike	P	0 - 20
2161957	Copper	0.357	Spike	P	0 - 20
2161957	Lead	0.709	Spike	P	0 - 20
2161957	Nickel	1.20	Spike	P	0 - 20
2161957	Selenium	0.531	Spike	P	0 - 20
2161957	Silver	0.904	Spike	P	0 - 20
2161957	Thallium	0.455	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161920	Chloride	0.575	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161920	Sulfate	0.615	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161940	Ammonia-N	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161911	Kjeldahl Nitrogen	0.549	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161888	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161853	Total-P	2.33	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161950	O-Phosphate-P	1.23	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P380158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162077	Aldrin	1.39	Spike	P	0 - 30
2162077	Alpha-BHC	1.78	Spike	P	0 - 30
2162077	Alpha-Chlordane	0.563	Spike	P	0 - 30
2162077	Beta-BHC	4.41	Spike	P	0 - 30
2162077	Beta-Cyfluthrin	0.543	Spike	P	0 - 30
2162077	Bifenthrin	0.254	Spike	P	0 - 30
2162077	Chlorothalonil	36.7	Spike	F	0 - 30
2162077	Cis-Nonachlor	0.167	Spike	P	0 - 30
2162077	Cypermethrin	3.61	Spike	P	0 - 30
2162077	Dacthal	1.60	Spike	P	0 - 30
2162077	DDD-p,p'	0.508	Spike	P	0 - 30
2162077	DDE-p,p'	0.0173	Spike	P	0 - 30
2162077	DDT-p,p'	0.854	Spike	P	0 - 30
2162077	Delta-BHC	3.29	Spike	P	0 - 30
2162077	Dicofol	6.48	Spike	P	0 - 30
2162077	Dieldrin	2.13	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162077	Endosulfan I	14.4	Spike	P	0 - 30
2162077	Endosulfan II	1.92	Spike	P	0 - 30
2162077	Endosulfan Sulfate	0.671	Spike	P	0 - 30
2162077	Endrin	1.13	Spike	P	0 - 30
2162077	Endrin Aldehyde	4.33	Spike	P	0 - 30
2162077	Endrin Ketone	0.633	Spike	P	0 - 30
2162077	Ethalfuralin	0.691	Spike	P	0 - 30
2162077	Gamma-BHC	0.686	Spike	P	0 - 30
2162077	Gamma-Chlordane	0.915	Spike	P	0 - 30
2162077	Heptachlor	3.12	Spike	P	0 - 30
2162077	Heptachlor Epoxide	0.955	Spike	P	0 - 30
2162077	Hexachlorobenzene	1.88	Spike	P	0 - 30
2162077	Lambda-Cyhalothrin	1.37	Spike	P	0 - 30
2162077	Methoxychlor	0.249	Spike	P	0 - 30
2162077	Mirex	1.19	Spike	P	0 - 30
2162077	Permethrin	1.35	Spike	P	0 - 30
2162077	Phenothrin	1.58	Spike	P	0 - 30
2162077	Prallethrin	0.580	Spike	P	0 - 30
2162077	Trans-Nonachlor	0.0197	Spike	P	0 - 30
2162077	Trifluralin	0.130	Spike	P	0 - 30
LFB	Aldrin	11.5	LCS	P	0 - 30
LFB	Alpha-BHC	1.12	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.80	LCS	P	0 - 30
LFB	Beta-BHC	0.610	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	13.7	LCS	P	0 - 30
LFB	Bifenthrin	0.699	LCS	P	0 - 30
LFB	Chlorothalonil	5.49	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.0543	LCS	P	0 - 30
LFB	Cypermethrin	3.24	LCS	P	0 - 30
LFB	Dacthal	0.502	LCS	P	0 - 30
LFB	DDD-p,p'	0.832	LCS	P	0 - 30
LFB	DDE-p,p'	0.220	LCS	P	0 - 30
LFB	DDT-p,p'	0.0331	LCS	P	0 - 30
LFB	Delta-BHC	3.84	LCS	P	0 - 30
LFB	Dicofol	6.16	LCS	P	0 - 30
LFB	Dieldrin	4.82	LCS	P	0 - 30
LFB	Endosulfan I	2.96	LCS	P	0 - 30
LFB	Endosulfan II	4.06	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.223	LCS	P	0 - 30
LFB	Endrin	0.120	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.63	LCS	P	0 - 30
LFB	Endrin Ketone	0.0865	LCS	P	0 - 30
LFB	Ethalfuralin	0.494	LCS	P	0 - 30
LFB	Gamma-BHC	1.33	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.554	LCS	P	0 - 30
LFB	Heptachlor	0.643	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.99	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.288	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.930	LCS	P	0 - 30
LFB	Methoxychlor	0.450	LCS	P	0 - 30
LFB	Mirex	0.183	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Permethrin	1.41	LCS	P	0 - 30
LFB	Phenothrin	1.60	LCS	P	0 - 30
LFB	Prallethrin	0.227	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.87	LCS	P	0 - 30
LFB	Trifluralin	0.231	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P380360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161918	Acetochlor	2.26	Spike	P	0 - 30
2161918	Alachlor	2.09	Spike	P	0 - 30
2161918	Ametryn	12.1	Spike	P	0 - 30
2161918	Atrazine	5.09	Spike	P	0 - 30
2161918	Atrazine Desethyl	1.75	Spike	P	0 - 30
2161918	Azinphos Methyl	1.62	Spike	P	0 - 30
2161918	Bromacil	2.08	Spike	P	0 - 30
2161918	Butylate	11.6	Spike	P	0 - 30
2161918	Carbophenothion	3.73	Spike	P	0 - 30
2161918	Chlorpyrifos Ethyl	21.4	Spike	P	0 - 30
2161918	Chlorpyrifos Methyl	3.79	Spike	P	0 - 30
2161918	Cyanazine	22.9	Spike	P	0 - 30
2161918	Demeton	1.91	Spike	P	0 - 30
2161918	Diazinon	1.13	Spike	P	0 - 30
2161918	Dimethenamid	27.0	Spike	P	0 - 30
2161918	Disulfoton	19.9	Spike	P	0 - 30
2161918	Dithiopyr	5.80	Spike	P	0 - 30
2161918	EPTC	5.83	Spike	P	0 - 30
2161918	Ethion	109	Spike	F	0 - 30
2161918	Ethoprop	1.75	Spike	P	0 - 30
2161918	Fenamiphos	7.64	Spike	P	0 - 30
2161918	Fipronil	8.76	Spike	P	0 - 30
2161918	Fipronil Desulfinyl	5.29	Spike	P	0 - 30
2161918	Fipronil Sulfide	6.68	Spike	P	0 - 30
2161918	Fipronil Sulfone	3.18	Spike	P	0 - 30
2161918	Flumioxazin	35.1	Spike	F	0 - 30
2161918	Fonofos	4.30	Spike	P	0 - 30
2161918	Hexazinone	8.73	Spike	P	0 - 30
2161918	Imazalil	4.50	Spike	P	0 - 30
2161918	Malathion	3.49	Spike	P	0 - 30
2161918	Metalaxyl	2.19	Spike	P	0 - 30
2161918	Metolachlor	4.15	Spike	P	0 - 30
2161918	Metribuzin	14.1	Spike	P	0 - 30
2161918	Mevinphos	21.6	Spike	P	0 - 30
2161918	Molinate	1.55	Spike	P	0 - 30
2161918	Naled	3.92	Spike	P	0 - 30
2161918	Norflurazon	5.45	Spike	P	0 - 30
2161918	Oxadiazon	8.07	Spike	P	0 - 30
2161918	Parathion Ethyl	1.98	Spike	P	0 - 30
2161918	Parathion Methyl	0.656	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161918	Pendimethalin	4.06	Spike	P	0 - 30
2161918	Phorate	2.41	Spike	P	0 - 30
2161918	Prodiamine	33.1	Spike	F	0 - 30
2161918	Prometon	4.06	Spike	P	0 - 30
2161918	Prometryn	5.31	Spike	P	0 - 30
2161918	Pronamide	0.338	Spike	P	0 - 30
2161918	Propiconazole	6.16	Spike	P	0 - 30
2161918	Simazine	1.97	Spike	P	0 - 30
2161918	Sulfentrazone	6.50	Spike	P	0 - 30
2161918	Tebuconazole	63.0	Spike	F	0 - 30
2161918	Terbufos	1.10	Spike	P	0 - 30
2161918	Terbutylazine	1.52	Spike	P	0 - 30
LFB	Acetochlor	1.54	LCS	P	0 - 30
LFB	Alachlor	4.60	LCS	P	0 - 30
LFB	Ametryn	1.64	LCS	P	0 - 30
LFB	Atrazine	4.77	LCS	P	0 - 30
LFB	Atrazine Desethyl	4.16	LCS	P	0 - 30
LFB	Azinphos Methyl	4.13	LCS	P	0 - 30
LFB	Bromacil	8.68	LCS	P	0 - 30
LFB	Butylate	20.2	LCS	P	0 - 30
LFB	Carbophenothion	8.31	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.82	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.97	LCS	P	0 - 30
LFB	Cyanazine	4.57	LCS	P	0 - 30
LFB	Demeton	28.0	LCS	P	0 - 30
LFB	Diazinon	2.35	LCS	P	0 - 30
LFB	Dimethenamid	4.67	LCS	P	0 - 30
LFB	Disulfoton	28.1	LCS	P	0 - 30
LFB	Dithiopyr	6.01	LCS	P	0 - 30
LFB	EPTC	39.7	LCS	F	0 - 30
LFB	Ethion	5.78	LCS	P	0 - 30
LFB	Ethoprop	1.38	LCS	P	0 - 30
LFB	Fenamiphos	18.7	LCS	P	0 - 30
LFB	Fipronil	5.13	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.84	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.28	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.39	LCS	P	0 - 30
LFB	Flumioxazin	10.2	LCS	P	0 - 30
LFB	Fonofos	4.86	LCS	P	0 - 30
LFB	Hexazinone	7.62	LCS	P	0 - 30
LFB	Imazalil	2.43	LCS	P	0 - 30
LFB	Malathion	2.00	LCS	P	0 - 30
LFB	Metalaxyl	2.53	LCS	P	0 - 30
LFB	Metolachlor	2.72	LCS	P	0 - 30
LFB	Metribuzin	11.5	LCS	P	0 - 30
LFB	Mevinphos	9.01	LCS	P	0 - 30
LFB	Molinate	17.4	LCS	P	0 - 30
LFB	Naled	37.3	LCS	F	0 - 30
LFB	Norflurazon	7.12	LCS	P	0 - 30
LFB	Oxadiazon	5.08	LCS	P	0 - 30
LFB	Parathion Ethyl	91.9	LCS	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Parathion Methyl	82.3	LCS	F	0 - 30
LFB	Pendimethalin	126	LCS	F	0 - 30
LFB	Phorate	9.41	LCS	P	0 - 30
LFB	Prodiamine	164	LCS	F	0 - 30
LFB	Prometon	1.60	LCS	P	0 - 30
LFB	Prometryn	0.817	LCS	P	0 - 30
LFB	Pronamide	4.29	LCS	P	0 - 30
LFB	Propiconazole	4.30	LCS	P	0 - 30
LFB	Simazine	0.825	LCS	P	0 - 30
LFB	Sulfentrazone	9.68	LCS	P	0 - 30
LFB	Tebuconazole	5.31	LCS	P	0 - 30
LFB	Terbufos	9.55	LCS	P	0 - 30
LFB	Terbutylazine	1.63	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P380158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2163037	Chlordane	1.40	Spike	P	0 - 30
2163037	Toxaphene	0.618	Spike	P	0 - 30
LFB	Chlordane	0.269	LCS	P	0 - 30
LFB	Toxaphene	1.20	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161211	3-Hydroxycarbofuran	14.6	Spike	P	0 - 30
2161211	Aldicarb	17.9	Spike	P	0 - 30
2161211	Aldicarb Sulfone	7.44	Spike	P	0 - 30
2161211	Aldicarb Sulfoxide	3.58	Spike	P	0 - 30
2161211	Carbaryl	2.07	Spike	P	0 - 30
2161211	Carbofuran	0.494	Spike	P	0 - 30
2161211	Methiocarb	4.85	Spike	P	0 - 30
2161211	Methomyl	3.80	Spike	P	0 - 30
2161211	Oxamyl	7.38	Spike	P	0 - 30
2161211	Propoxur	2.13	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161361	2,4-D	22.3	Spike	P	0 - 30
2161361	Acetaminophen	7.86	Spike	P	0 - 30
2161361	Acetamiprid	3.60	Spike	P	0 - 30
2161361	Afidopyropen	0.972	Spike	P	0 - 30
2161361	Bentazon	0.354	Spike	P	0 - 30
2161361	Benzovindiflupyr	7.01	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P380128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161361	Carbamazepine	0.359	Spike	P	0 - 30
2161361	Clothianidin	0.562	Spike	P	0 - 30
2161361	Dinotefuran	6.70	Spike	P	0 - 30
2161361	Diuron	6.47	Spike	P	0 - 30
2161361	Fenuron	3.00	Spike	P	0 - 30
2161361	Fluridone	19.0	Spike	P	0 - 30
2161361	Hydrocodone	3.30	Spike	P	0 - 30
2161361	Ibuprofen	14.2	Spike	P	0 - 30
2161361	Imazapyr	2.13	Spike	P	0 - 30
2161361	Imidacloprid	7.96	Spike	P	0 - 30
2161361	Linuron	6.70	Spike	P	0 - 30
2161361	Mandestrobin	6.29	Spike	P	0 - 30
2161361	MCPP	18.9	Spike	P	0 - 30
2161361	Naproxen	42.3	Spike	F	0 - 30
2161361	Primidone	7.29	Spike	P	0 - 30
2161361	Pyraclostrobin	17.3	Spike	P	0 - 30
2161361	Thiamethoxam	1.24	Spike	P	0 - 30
2161361	Tolfenpyrad	2.52	Spike	P	0 - 30
2161361	Triclopyr	5.53	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161916	Acesulfame K	2.32	Spike	P	0 - 30
2161916	AMPA	0.809	Spike	P	0 - 30
2161916	Endothall	21.7	Spike	P	0 - 30
2161916	Glufosinate	3.17	Spike	P	0 - 30
2161916	Glyphosate	5.63	Spike	P	0 - 30
2161916	Sucralose	27.9	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P380127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161966	Color (true)	1.43	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P380270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161886	Total Alkalinity	0.852	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P380756

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

Reference Method: SM 2540 C-2011
Batch ID: P380756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161910	TDS	1.79	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161886	Fluoride	1.42	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P380170

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161936	Organic Carbon	2.81	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2161915
Field Sample ID: G5SW0147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	66.6	P	30 - 160

Lab Sample ID: 2161916
Field Sample ID: G5SW0147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.9	P	30 - 160
EPA 8321B	Diuron-d6	56.2	P	30 - 160
EPA 8321B	Endothall-d6	89.0	P	30 - 160
EPA 8321B	Endothall-d6	89.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.9	P	30 - 160
EPA 8321B	Primidone-d5	97.5	P	30 - 160
EPA 8321B	Sucralose-d6	40.8	P	30 - 160
EPA 8321B	Sucralose-d6	40.8	P	30 - 160

Lab Sample ID: 2161917
Field Sample ID: G5SW0147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	87.4	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	62.3	P	34 - 106
EPA 8276	Decachlorobiphenyl	60.1	P	26 - 97.0
EPA 8276	PCNB	101	P	38 - 141

Lab Sample ID: 2161918
Field Sample ID: G5SW0147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	114	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: A97995

Included Lab Sample IDs: 2161910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	99.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97998

Included Lab Sample IDs: 2161912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	97.5	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A98019

Included Lab Sample IDs: 2161910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115

Reference Method: SM 5310 B-2011

Run ID: A98030

Included Lab Sample IDs: 2161911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.8	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98046

Included Lab Sample IDs: 2161911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.5	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98048

Included Lab Sample IDs: 2161919

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	102	P/P	90 - 110
Calcium	101	100	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Sodium	103	104	P/P	90 - 110
Zinc	99.1	99.8	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A98059

Included Lab Sample IDs: 2161910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.8	96.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A98059

Included Lab Sample IDs: 2161910

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98061

Included Lab Sample IDs: 2161911

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

Reference Method: EPA 8321B

Run ID: A98063

Included Lab Sample IDs: 2161916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	107	P/P	60 - 160
Endothall	98.1	130	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98081

Included Lab Sample IDs: 2161919

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.4	95.9	P/P	90 - 110
Arsenic	100	99.1	P/P	90 - 110
Boron	102	101	P/P	90 - 110
Chromium	98.2	97.3	P/P	90 - 110
Copper	93.6	93.3	P/P	90 - 110
Lead	98.2	97.5	P/P	90 - 110
Nickel	100	98.3	P/P	90 - 110
Selenium	97.1	95.3	P/P	90 - 110
Silver	90.6	90.2	P/P	90 - 110
Thallium	96.0	94.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98096

Included Lab Sample IDs: 2161910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	100	P/P	90 - 110
Sulfate	98.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98125

Included Lab Sample IDs: 2161916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	119	121	P/P	40 - 200
Glufosinate	114	124	P/P	40 - 200
Glyphosate	125	125	P/P	40 - 200

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98139

Included Lab Sample IDs: 2161919

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	98.8	97.7	P/P	90 - 110
Cadmium	98.0	97.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A98140

Included Lab Sample IDs: 2161917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.2		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	98.6		P	80 - 120
Beta-BHC	107		P	80 - 120
Beta-Cyfluthrin	83.9		P	80 - 120
Bifenthrin	95.1		P	80 - 120
Chlorothalonil	88.8		P	80 - 120
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	90.2		P	80 - 120
Dacthal	99.6		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	97.9		P	80 - 120
DDT-p,p'	98.9		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	93.1		P	80 - 120
Dieldrin	95.7		P	80 - 120
Endosulfan I	96.7		P	80 - 120
Endosulfan II	94.5		P	80 - 120
Endosulfan Sulfate	97.9		P	80 - 120
Endrin	99.4		P	80 - 120
Endrin Aldehyde	99.4		P	80 - 120
Endrin Ketone	100		P	80 - 120
Ethalfuralin	98.1		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	99.2		P	80 - 120
Heptachlor	96.1		P	80 - 120
Heptachlor Epoxide	99.5		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Lambda-Cyhalothrin	83.1		P	80 - 120
Methoxychlor	96.0		P	80 - 120
Mirex	97.3		P	80 - 120
Permethrin	88.5		P	80 - 120
Phenothrin	84.6		P	80 - 120
Prallethrin	93.3		P	80 - 120
Trans-Nonachlor	97.7		P	80 - 120
Trifluralin	98.9		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98155

Included Lab Sample IDs: 2161911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A98160
 Included Lab Sample IDs: 2161916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	88.2	94.3	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
 Run ID: A98179
 Included Lab Sample IDs: 2161911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 8321B
 Run ID: A98184
 Included Lab Sample IDs: 2161915

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	104	92.7	P/P	60 - 150
Aldicarb	86.2	92.2	P/P	60 - 150
Aldicarb Sulfone	95.3	85.9	P/P	50 - 150
Aldicarb Sulfoxide	101	81.2	P/P	50 - 150
Carbaryl	93.8	103	P/P	60 - 150
Carbofuran	102	101	P/P	50 - 150
Methiocarb	104	102	P/P	50 - 150
Methomyl	86.7	92.2	P/P	50 - 150
Oxamyl	91.1	94.3	P/P	50 - 150
Propoxur	109	100	P/P	50 - 150

Reference Method: EPA 8321B
 Run ID: A98214
 Included Lab Sample IDs: 2161916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	77.9	80.1	P/P	50 - 150
Acetaminophen	104	128	P/P	60 - 160
Acetamiprid	95.9	101	P/P	50 - 150
Afidopyropen	93.4	84.6	P/P	50 - 150
Bentazon	109	67.9	P/P	50 - 160
Benzovindiflupyr	91.1	92.5	P/P	50 - 150
Carbamazepine	91.5	102	P/P	60 - 150
Clothianidin	95.7	104	P/P	60 - 150
Dinotefuran	105	110	P/P	50 - 150
Diuron	89.6	90.8	P/P	60 - 150
Fenuron	92.9	95.8	P/P	60 - 150
Fluridone	73.7	85.3	P/P	60 - 160
Hydrocodone	95.4	105	P/P	60 - 150
Ibuprofen	85.0	70.8	P/P	50 - 160
Imazapyr	89.8	89.2	P/P	50 - 150
Imidacloprid	89.4	88.3	P/P	60 - 150
Linuron	100	104	P/P	60 - 150
Mandestrobin	84.2	83.5	P/P	50 - 150
MCPP	70.3	72.4	P/P	50 - 150
Naproxen	79.6	121	P/P	50 - 160
Primidone	92.0	83.8	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A98214

Included Lab Sample IDs: 2161916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	97.1	96.9	P/P	60 - 150
Thiamethoxam	93.6	101	P/P	50 - 150
Tolfenpyrad	80.4	82.3	P/P	60 - 150
Triclopyr	87.6	81.9	P/P	50 - 150

Reference Method: EPA 8276

Run ID: A98239

Included Lab Sample IDs: 2161917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.7		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8270E

Run ID: A98267

Included Lab Sample IDs: 2161918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	99.6		P	80 - 120
Cyanazine	91.4		P	80 - 120
Dimethenamid	101		P	80 - 120
Ethion	99.0		P	80 - 120
Mevinphos	102		P	80 - 120

Reference Method: EPA 8270E

Run ID: A98288

Included Lab Sample IDs: 2161918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.5		P	80 - 120
Alachlor	101		P	80 - 120
Atrazine Desethyl	99.5		P	80 - 120
Azinphos Methyl	93.9		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	95.8		P	80 - 120
Carbophenothion	98.1		P	80 - 120
Chlorpyrifos Ethyl	97.7		P	80 - 120
Chlorpyrifos Methyl	95.0		P	80 - 120
Demeton	99.8		P	80 - 120
Diazinon	100		P	80 - 120
Disulfoton	96.9		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	98.7		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	96.4		P	80 - 120
Fipronil	99.9		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	98.1		P	80 - 120
Fipronil Sulfone	96.1		P	80 - 120
Flumioxazin	89.7		P	80 - 120
Fonofos	98.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A98288
 Included Lab Sample IDs: 2161918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexazinone	101		P	80 - 120
Imazalil	98.4		P	80 - 120
Malathion	98.4		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	96.9		P	80 - 120
Metribuzin	96.9		P	80 - 120
Molinate	100		P	80 - 120
Naled	102		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	95.8		P	80 - 120
Parathion Methyl	95.9		P	80 - 120
Pendimethalin	95.4		P	80 - 120
Phorate	98.2		P	80 - 120
Prodiamine	95.6		P	80 - 120
Prometon	97.8		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	96.9		P	80 - 120
Propiconazole	100		P	80 - 120
Simazine	96.5		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	112		P	80 - 120
Terbufos	101		P	80 - 120
Terbutylazine	98.9		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A98295
 Included Lab Sample IDs: 2161918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	95.5		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							8.89	
EPA 200.7 Rev. 4.4	Barium	99.2		103	102	102			0.0477
	Calcium	102		100	100	99.7			0.189
	Iron	100		102	102	102			0.0367
	Magnesium	102		103	102	103			0.464
	Potassium	98.7		105	101	101			0.406
	Sodium	99.6		99.1	99.2	98.4			0.618
	Zinc	99.8		104	101	101			0.276
EPA 200.8 Rev. 5.4	Aluminum	94.4		93.9	95.2	95.0			1.12
	Antimony	103		103	103	100			0.301
	Arsenic	98.6		96.6	96.3	97.9			0.311
	Boron	99.4		102	101	102			1.74
	Cadmium	101		103	101	102			1.39
	Chromium	98.8		97.8	98.4	97.9			0.663
	Copper	98.1		95.6	95.9	93.0			0.357
	Lead	95.8		96.8	96.1	96.3			0.709
	Nickel	96.3		96.2	95.1	99.3			1.20
	Selenium	94.0		93.2	92.7	86.9			0.531
	Silver	94.1		93.3	94.1	92.2			0.904
	Thallium	99.1		101	100	102			0.455
EPA 300.0 Rev. 2.1	Chloride	99.5		97.4	98.1			0.575	
	Sulfate	99.8		98.9	99.6			0.615	
EPA 350.1 Rev. 2.0	Ammonia-N	100		98.9	101				1.66
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		109	110				0.549
EPA 353.2 Rev. 2.0	NO2NO3-N	100		94.4	94.4				0.0
EPA 365.1 Rev. 2.0	Total-P	104		101	104				2.33
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.5		96.6	97.8				1.23
EPA 8270E	Acetochlor	95.2	96.7	89.1	87.1	1.54			2.26
	Alachlor	92.4	96.7	86.7	88.5	4.60			2.09
	Aldrin	31.3	35.1	60.7	59.9	11.5			1.39
	Alpha-BHC	83.9	83.0	87.6	86.1	1.12			1.78
	Alpha-Chlordane	74.0	72.7	79.3	79.7	1.80			0.563
	Ametryn	102	101	115	91.0	1.64			12.1
	Atrazine	99.5	104			4.77			5.09
	Atrazine Desethyl	85.8	89.4			4.16			1.75
	Azinphos Methyl	123	118	130	127	4.13			1.62
	Beta-BHC	94.7	95.3	113	108	0.610			4.41
	Beta-Cyfluthrin	71.1	62.0	85.7	85.2	13.7			0.543
	Bifenthrin	78.4	79.0	101	101	0.699			0.254
	Bromacil	53.3	58.1	75.5	77.8	8.68			2.08
	Butylate	56.7	69.4	70.9	79.6	20.2			11.6
	Carbophenothion	86.6	94.1	76.0	73.2	8.31			3.73
	Chlorothalonil	77.7	73.5	41.9	28.9	5.49			36.7
	Chlorpyrifos Ethyl	93.0	97.6	104	84.2	4.82			21.4
	Chlorpyrifos Methyl	99.4	105	94.6	91.1	4.97			3.79
	Cis-Nonachlor	81.6	81.6	83.5	83.6	0.0543			0.167
	Cyanazine	122	117	103	81.8	4.57			22.9
	Cypermethrin	76.5	74.0	97.9	101	3.24			3.61
	Dacthal	88.2	88.7	89.0	87.6	0.502			1.60
	DDD-p,p'	90.0	90.8	91.3	91.8	0.832			0.508
	DDE-p,p'	77.5	77.6	77.8	77.8	0.220			0.0173
	DDT-p,p'	72.1	72.1	75.2	75.8	0.0331			0.854
	Delta-BHC	95.2	91.6	120	116	3.84			3.29
	Demeton	74.1	98.2	116	114	28.0			1.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Diazinon	98.4	101	97.9	96.7	2.35		1.13
	Dicofol	62.0	65.9	50.6	54.0	6.16		6.48
	Dieldrin	88.0	83.9	87.4	89.2	4.82		2.13
	Dimethenamid	92.9	97.3	107	81.4	4.67		27.0
	Disulfoton	71.9	95.4	78.3	64.1	28.1		19.9
	Dithiopyr	85.8	91.1	77.0	71.6	6.01		5.80
	Endosulfan I	85.6	83.1	99.6	86.3	2.96		14.4
	Endosulfan II	94.0	90.3	101	98.8	4.06		1.92
	Endosulfan Sulfate	90.6	90.4	107	106	0.223		0.671
	Endrin	95.7	95.8	95.4	96.5	0.120		1.13
	Endrin Aldehyde	90.5	89.0	94.3	90.3	1.63		4.33
	Endrin Ketone	94.1	94.0	98.9	98.3	0.0865		0.633
	EPTC	47.4	70.9	75.2	79.7	39.7		5.83
	Ethalfuralin	72.2	72.6	78.7	79.3	0.494		0.691
	Ethion	62.7	66.5	87.0	25.5	5.78		109
	Ethoprop	111	110	123	125	1.38		1.75
	Fenamiphos	80.4	97.1	68.8	74.2	18.7		7.64
	Fipronil	93.4	98.3	84.2	75.3	5.13		8.76
	Fipronil Desulfinyl	99.5	102	84.8	79.2	2.84		5.29
	Fipronil Sulfide	86.5	93.9	77.1	66.8	8.28		6.68
	Fipronil Sulfone	69.9	74.5	60.9	52.9	6.39		3.18
	Flumioxazin	115	127	206	144	10.2		35.1
	Fonofos	93.0	97.6	102	97.7	4.86		4.30
	Gamma-BHC	82.9	84.0	103	102	1.33		0.686
	Gamma-Chlordane	75.4	75.8	77.6	76.9	0.554		0.915
	Heptachlor	67.2	66.8	72.9	70.7	0.643		3.12
	Heptachlor Epoxide	83.9	85.6	88.6	87.7	1.99		0.955
	Hexachlorobenzene	66.5	66.3	68.3	67.0	0.288		1.88
	Hexazinone	96.5	104	97.4	106	7.62		8.73
	Imazalil	90.5	88.4	79.8	76.3	2.43		4.50
	Lambda-Cyhalothrin	61.9	61.3	84.4	85.5	0.930		1.37
	Malathion	114	117	116	112	2.00		3.49
	Metalaxyl	95.8	98.3	87.7	89.7	2.53		2.19
	Methoxychlor	92.2	92.7	86.3	86.5	0.450		0.249
	Metolachlor	85.5	87.8	79.5	76.3	2.72		4.15
	Metribuzin	111	124	113	98.2	11.5		14.1
	Mevinphos	111	101	131	105	9.01		21.6
	Mirex	56.1	56.2	69.6	68.7	0.183		1.19
	Molinate	68.7	81.7	86.7	85.4	17.4		1.55
	Naled	41.6	60.6	106	102	37.3		3.92
	Norflurazon	90.9	97.6	78.8	74.6	7.12		5.45
	Oxadiazon	86.5	91.0	71.9	61.5	5.08		8.07
	Parathion Ethyl	37.4	101	100	98.3	91.9		1.98
	Parathion Methyl	46.3	111	132	133	82.3		0.656
	Pendimethalin	20.2	88.8	90.6	87.0	126		4.06
	Permethrin	69.3	70.3	80.3	81.4	1.41		1.35
	Phenothrin	30.8	31.3	67.0	68.1	1.60		1.58
	Phorate	90.6	99.5	106	103	9.41		2.41
	Prallethrin	46.4	46.5	62.5	62.1	0.227		0.580
	Prodiamine	6.82	69.6	51.5	36.9	164		33.1
	Prometon	97.9	96.4	87.1	82.9	1.60		4.06
	Prometryn	99.0	99.8	92.7	87.9	0.817		5.31
	Pronamide	101	105	106	106	4.29		0.338
	Propiconazole	84.0	87.7	73.2	64.4	4.30		6.16

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Simazine	113	114			0.825		1.97
	Sulfentrazone	13.1	14.5	64.3	47.0	9.68		6.50
	Tebuconazole	37.7	39.8	27.1	14.1	5.31		63.0
	Terbufos	93.2	103	110	109	9.55		1.10
	Terbuthylazine	96.5	98.1	98.9	100	1.63		1.52
	Trans-Nonachlor	73.0	71.6	73.6	73.6	1.87		0.0197
	Trifluralin	74.3	74.5	78.1	78.0	0.231		0.130
EPA 8276	Chlordane	111	112	134	136	0.269		1.40
	Toxaphene	112	113	117	116	1.20		0.618
EPA 8321B	2,4-D	127		83.4	106			22.3
	3-Hydroxycarbofuran	67.6		71.9	62.1			14.6
	Acesulfame K	112		22.4	21.9			2.32
	Acetaminophen	109		126	117			7.86
	Acetamiprid	91.6		83.3	86.3			3.60
	Afidopyropen	81.1		87.2	88.0			0.972
	Aldicarb	48.6		75.5	90.4			17.9
	Aldicarb Sulfone	76.4		75.4	81.2			7.44
	Aldicarb Sulfoxide	74.4		31.2	30.1			3.58
	AMPA	111		88.9	87.7			0.809
	Bentazon	89.6		42.6	42.9			0.354
	Benzovindiflupyr	80.6		86.6	80.7			7.01
	Carbamazepine	93.1		73.9	74.2			0.359
	Carbaryl	70.2		58.8	60.0			2.07
	Carbofuran	66.6		53.7	54.0			0.494
	Clothianidin	93.9		91.9	92.4			0.562
	Dinotefuran	114		143	134			6.70
	Diuron	74.0		65.1	61.0			6.47
	Endothall	89.9		126	102			21.7
	Fenuron	102		77.1	74.8			3.00
	Fluridone	76.1		79.9	65.1			19.0
	Glufosinate	115		103	100			3.17
	Glyphosate	118		71.1	83.7			5.63
	Hydrocodone	88.9		88.4	85.6			3.30
	Ibuprofen	82.1		78.2	67.9			14.2
	Imazapyr	93.5						2.13
	Imidacloprid	99.2		157	145			7.96
	Linuron	71.5		66.0	61.7			6.70
	Mandestrobin	84.5		86.2	81.0			6.29
	MCPP	120		125	104			18.9
	Methiocarb	65.8		60.6	63.6			4.85
	Methomyl	75.9		72.1	69.4			3.80
	Naproxen	102		105	68.3			42.3
	Oxamyl	78.1		75.2	69.8			7.38
	Primidone	92.7		96.6	89.8			7.29
	Propoxur	64.2		56.4	55.2			2.13
	Pyraclostrobin	81.0		99.5	83.6			17.3
	Sucralose	94.9		73.4	47.3			27.9
	Thiamethoxam	95.3		138	136			1.24
	Tolfenpyrad	40.0		47.2	46.0			2.52
	Triclopyr	102		105	99.7			5.53
SM 2120 B-2011	Color (true)	99.2					1.43	
SM 2320 B-2011	Total Alkalinity	99.1					0.852	
SM 2540 C-2011	TDS						1.79	
SM 4500 F-C-2011	Fluoride	98.8		103	105			1.42

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 5310 B-2011	Organic Carbon	99.8	99.3 103			2.81

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2161910
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2161919
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2161919
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2161910
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2161910
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2161911
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2161911
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2161911
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2161911
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2161912
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2161917
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2161918
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2161917
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2161915
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2161916
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2161916
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2161910
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2161910
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2161919
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2161910
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2161910
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2161910
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2161911

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	03/04/2020			03/04/2020 16:33	Yen Ta	2161910
EPA 200.7 Rev. 4.4	03/04/2020	03/05/2020 13:55	Elliott D. Healy	03/06/2020 18:59	Betina Topolski	2161919
EPA 200.8 Rev. 5.4	03/04/2020	03/05/2020 13:55	Elliott D. Healy	03/09/2020 19:48	Alexander Thompson	2161919
	03/04/2020	03/05/2020 13:55	Elliott D. Healy	03/10/2020 16:08	Justin Cutchin	2161919
EPA 300.0 Rev. 2.1	03/04/2020			03/10/2020 03:44	Lipi Saha	2161910
EPA 350.1 Rev. 2.0	03/04/2020			03/10/2020 12:16	Ping Hua	2161911
EPA 351.2 Rev. 2.0	03/04/2020	03/05/2020 12:35	Sima Feizi	03/06/2020 18:44	Julia Storbeck	2161911
EPA 353.2 Rev. 2.0	03/04/2020			03/09/2020 10:13	Beverly Y. Sanders	2161911
EPA 365.1 Rev. 2.0	03/04/2020	03/09/2020 14:56	Yen Ta	03/11/2020 19:14	Benjamin T. Nordmann	2161911
EPA 365.1 Rev. 2.0 dissolved	03/04/2020			03/04/2020 15:54	Carlos Miranda	2161912
EPA 8270E	03/04/2020	03/08/2020 08:30	Rasheda Ghaffari	03/11/2020 21:29	Arthur Maknenko	2161917
	03/04/2020	03/10/2020 09:00	Julie Wi	03/12/2020 17:27	Vandana T. Nagar	2161918
	03/04/2020	03/10/2020 09:00	Julie Wi	03/13/2020 15:15	Vandana T. Nagar	2161918
	03/04/2020	03/10/2020 09:00	Julie Wi	03/17/2020 15:01	Vandana T. Nagar	2161918
EPA 8276	03/04/2020	03/08/2020 08:30	Rasheda Ghaffari	03/17/2020 03:32	Michael Poppell	2161917
EPA 8321B	03/04/2020	03/05/2020 09:00	Hoor Shaik	03/10/2020 04:56	Juyoung Kim	2161915
	03/04/2020	03/06/2020 10:00	Hoor Shaik	03/13/2020 14:43	Juyoung Kim	2161916
	03/04/2020	03/06/2020 10:00	Hoor Shaik	03/16/2020 11:57	Juyoung Kim	2161916
	03/04/2020	03/06/2020 13:00	Rebecca Ware	03/06/2020 15:45	Rebecca Ware	2161916
	03/04/2020	03/06/2020 13:00	Rebecca Ware	03/09/2020 10:46	Rebecca Ware	2161916
	03/04/2020	03/06/2020 13:00	Rebecca Ware	03/11/2020 17:42	Rebecca Ware	2161916
SM 2120 B-2011	03/04/2020			03/04/2020 17:26	Madeline Gruver	2161910
SM 2320 B-2011	03/04/2020			03/07/2020 17:36	Samantha Davila	2161910
SM 2340B	03/04/2020			03/06/2020 18:59	Betina Topolski	2161919
SM 2540 C-2011	03/04/2020			03/09/2020 15:13	Yijie Li	2161910
SM 2540 D-2011	03/04/2020			03/09/2020 15:13	Yijie Li	2161910
SM 4500 F-C-2011	03/04/2020			03/07/2020 17:36	Samantha Davila	2161910
SM 5310 B-2011	03/04/2020			03/05/2020 18:50	Lauren Lees	2161911