Chemical Analysis Report

NE-DIST-2019-12-19-02

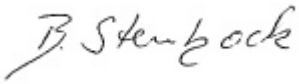
Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Suwannee North**
Request ID: **RQ-2019-12-16-34**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 13-JAN-2020 15:12



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: Cannon Cr @ Cannon Cr Rd / Business Park Point W Cr 47 **Collection Date/Time: 12/18/2019 10:30**

Field ID: 21030138 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2145333	EPA 180.1 Rev. 2.0	Turbidity	8.4	A	NTU	P376171	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P376564	
		Sulfate	4.4		mg SO4/L	P376566	
	SM 2120 B-2011	Color (true)	130		PCU	P376195	
	SM 2320 B-2011	Total Alkalinity	56		mg CaCO3/L	P376377	
	SM 2540 C-2011	TDS	115		mg/L	P376547	
	SM 2540 D-2011	TSS	3	I	mg/L	P376536	
	SM 4500 F-C-2011	Fluoride	0.063	I	mg F/L	P376381	
2145334	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P376462	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P376585	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376473	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P376270	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P376454	
2145335	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.029		mg P/L	P376180	
2145352	EPA 8321B	Aldicarb	0.020	U	ug/L	P376238	
		Aldicarb Sulfone	0.0020	U	ug/L	P376238	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P376238	MS
		Carbaryl	0.0020	U	ug/L	P376238	
		Carbofuran	0.0020	U	ug/L	P376238	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P376238	
		Methiocarb	0.0020	U	ug/L	P376238	
		Methomyl	0.0020	U	ug/L	P376238	
		Oxamyl	0.0020	U	ug/L	P376238	
		Propoxur	0.0020	UJ	ug/L	P376238	MS
2145353		Acesulfame K**	0.10	U	ug/L	P376159	
		2,4-D	0.016		ug/L	P376210	MS
		AMPA**	0.14	I	ug/L	P376159	
		Sucralose**	0.12		ug/L	P376159	
		Acetaminophen**	0.0080	U	ug/L	P376210	
		Acetamiprid**	0.0020	U	ug/L	P376210	
		Endothall**	0.25	U	ug/L	P376159	
		Glufosinate**	0.10	U	ug/L	P376159	
		Glyphosate**	0.10	U	ug/L	P376159	
		Afidopyropen**	0.0020	UJ	ug/L	P376210	
		Bentazon	8.0E-04	U	ug/L	P376210	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P376210	
		Carbamazepine**	8.0E-04	U	ug/L	P376210	
		Clothianidin**	0.0020	U	ug/L	P376210	
		Dinotefuran**	0.0020	U	ug/L	P376210	
		Diuron	0.0020	U	ug/L	P376210	
		Fenuron	0.016	U	ug/L	P376210	
		Fluridone**	0.0013	I	ug/L	P376210	

Field ID: 21030138 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2145353	EPA 8321B	Imazapyr**	0.010	I	ug/L	P376210	
		Hydrocodone**	0.0020	U	ug/L	P376210	
		Ibuprofen**	0.020	U	ug/L	P376210	
		Imidacloprid	0.014		ug/L	P376210	MS
		Linuron	0.0040	U	ug/L	P376210	
		Mandestrobin**	0.0020	UJ	ug/L	P376210	
		MCPP	0.0020	U	ug/L	P376210	MS
		Naproxen**	0.0080	U	ug/L	P376210	
		Primidone**	0.0040	U	ug/L	P376210	
		Pyraclostrobin**	0.0020	U	ug/L	P376210	
		Thiamethoxam**	0.0020	U	ug/L	P376210	
		Tolfenpyrad**	0.0020	U	ug/L	P376210	
		Triclopyr**	0.0040	U	ug/L	P376210	
2145358	EPA 8270E	Aldrin	4.3	U	ng/L	P376291	
		Alpha-BHC	2.2	U	ng/L	P376291	
		Alpha-Chlordane	1.1	U	ng/L	P376291	
		Beta-BHC	11	U	ng/L	P376291	
		Bifenthrin**	4.3	U	ng/L	P376291	
		Delta-BHC	8.6	U	ng/L	P376291	RPD
		Gamma-BHC	8.6	U	ng/L	P376291	
		Carbophenothion	11	U	ng/L	P376291	
		Chlorothalonil	2.2	U	ng/L	P376291	
		Cis-Nonachlor**	1.1	U	ng/L	P376291	
		Cypermethrin	22	U	ng/L	P376291	
		DDD-p,p'	6.5	U	ng/L	P376291	
		DDE-p,p'	6.5	U	ng/L	P376291	
		DDT-p,p'	7.5	U	ng/L	P376291	
		Dicofol	32	U	ng/L	P376291	
		Dieldrin	4.3	U	ng/L	P376291	
		Endosulfan I	4.3	U	ng/L	P376291	
		Endosulfan II	4.3	U	ng/L	P376291	
		Endosulfan Sulfate	2.2	U	ng/L	P376291	
		Endrin	2.2	U	ng/L	P376291	
		Endrin Aldehyde	2.2	U	ng/L	P376291	
		Endrin Ketone	2.2	U	ng/L	P376291	
		Ethalfluralin**	3.2	U	ng/L	P376291	
		Gamma-Chlordane	1.1	U	ng/L	P376291	
		Heptachlor	1.6	U	ng/L	P376291	
		Heptachlor Epoxide	2.2	U	ng/L	P376291	
		Hexachlorobenzene	2.2	U	ng/L	P376291	
		Methoxychlor	4.3	U	ng/L	P376291	
		Mirex	2.2	U	ng/L	P376291	
		Permethrin	11	U	ng/L	P376291	
		Trans-Nonachlor**	1.1	U	ng/L	P376291	
		Trifluralin	2.7	U	ng/L	P376291	

Field ID: 21030138 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2145358	EPA 8276	Chlordane	5.7	I	ng/L	P376291	
		Toxaphene	32	U	ng/L	P376291	
2145359	EPA 8270E	Acetochlor	0.26	U	ng/L	P376287	
		Alachlor	0.26	U	ng/L	P376287	
		Ametryn	0.62	U	ng/L	P376287	
		Atrazine	1.8		ng/L	P376287	
		Atrazine Desethyl	1.6	U	ng/L	P376287	
		Azinphos Methyl	5.2	U	ng/L	P376287	
		Bromacil	0.52	U	ng/L	P376287	MS, RPD
		Butylate	0.41	U	ng/L	P376287	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P376287	
		Chlorpyrifos Methyl	0.10	U	ng/L	P376287	
		Cyanazine	3.4	U	ng/L	P376287	
		Demeton	7.2	U	ng/L	P376287	
		Diazinon	0.13	U	ng/L	P376287	
		Dimethenamid**	0.10	U	ng/L	P376287	
		Disulfoton	0.52	U	ng/L	P376287	
		Dithiopyr**	0.10	U	ng/L	P376287	
		EPTC	1.3	U	ng/L	P376287	
		Ethion	0.16	U	ng/L	P376287	
		Ethoprop	0.10	U	ng/L	P376287	
		Fenamiphos	0.52	U	ng/L	P376287	
		Fipronil	0.26	U	ng/L	P376287	
		Fipronil Desulfinyl**	0.24	I	ng/L	P376287	
		Fipronil Sulfide	0.39	I	ng/L	P376287	
		Fipronil Sulfone	0.94		ng/L	P376287	
		Fonofos	0.21	U	ng/L	P376287	
		Hexazinone	0.52	U	ng/L	P376287	
		Malathion	0.36	U	ng/L	P376287	
		Metalaxyl	1.7		ng/L	P376287	
		Metolachlor	0.52	U	ng/L	P376287	
		Metribuzin	0.78	UJ	ng/L	P376287	RPD
		Mevinphos	0.52	U	ng/L	P376287	
		Molinate	0.31	U	ng/L	P376287	
		Norflurazon	0.52	U	ng/L	P376287	
		Oxadiazon**	0.10	U	ng/L	P376287	MS
		Parathion Ethyl	0.26	U	ng/L	P376287	
		Parathion Methyl	0.57	U	ng/L	P376287	
		Pendimethalin	1.0	U	ng/L	P376287	
		Phorate	0.26	U	ng/L	P376287	
		Prodiamine**	0.18	UJ	ng/L	P376287	RPD
		Prometon	0.93	U	ng/L	P376287	
		Prometryn	0.21	U	ng/L	P376287	
		Simazine	0.52	U	ng/L	P376287	
		Tebuconazole**	1.8	I J	ng/L	P376287	RPD

Field ID: 21030138 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2145359	EPA 8270E	Terbufos	0.10	U	ng/L	P376287	
		Terbuthylazine	0.44	U	ng/L	P376287	MS
2145367	EPA 200.7 Rev. 4.4	Barium	11.3		ug/L	P376573	
		Calcium	22.8		mg/L	P376573	
		Iron	490		ug/L	P376573	
		Magnesium	2.74		mg/L	P376573	
		Potassium	2.4		mg/L	P376573	
		Sodium	6.4		mg/L	P376573	
		Zinc	5.0	U	ug/L	P376573	
	EPA 200.8 Rev. 5.4	Aluminum	335		ug/L	P376573	
		Antimony	0.11	I	ug/L	P376573	
		Arsenic	2.02		ug/L	P376573	
		Boron**	18.8		ug/L	P376573	
		Cadmium	0.020	U	ug/L	P376573	
		Chromium	1.0	I	ug/L	P376573	
		Copper	1.04		ug/L	P376573	
		Lead	0.25	I	ug/L	P376573	
		Nickel	0.50	U	ug/L	P376573	
		Selenium	0.20	U	ug/L	P376573	
		Silver	0.010	U	ug/L	P376573	
		Thallium	0.10	U	ug/L	P376573	

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: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes 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.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Rocky Creek at 156th Av **Collection Date/Time: 12/18/2019 11:55**

Field ID: G1NE0020 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2145336	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P376171	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P376564	
		Sulfate	33		mg SO4/L	P376566	
	SM 2120 B-2011	Color (true)	96		PCU	P376196	
	SM 2320 B-2011	Total Alkalinity	27		mg CaCO3/L	P376377	
	SM 2540 C-2011	TDS	116		mg/L	P376547	
	SM 2540 D-2011	TSS	2	I	mg/L	P376536	
	SM 4500 F-C-2011	Fluoride	0.16		mg F/L	P376381	
2145337	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P376462	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P376585	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P376473	
	EPA 365.1 Rev. 2.0	Total-P	0.28		mg P/L	P376270	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P376454	
2145338	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.23		mg P/L	P376180	
2145354	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P376159	
		2,4-D	0.0020	U	ug/L	P376210	MS
		AMPA**	0.11	I	ug/L	P376159	
		Sucralose**	0.010	U	ug/L	P376159	
		Acetaminophen**	0.0080	U	ug/L	P376210	
		Acetamiprid**	0.0020	U	ug/L	P376210	
		Endothall**	0.25	U	ug/L	P376159	
		Glufosinate**	0.10	U	ug/L	P376159	
		Glyphosate**	0.10	U	ug/L	P376159	
		Afidopyropen**	0.0020	UJ	ug/L	P376210	
		Bentazon	8.0E-04	U	ug/L	P376210	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P376210	
		Carbamazepine**	8.0E-04	U	ug/L	P376210	
		Clothianidin**	0.0020	U	ug/L	P376210	
		Dinotefuran**	0.0020	U	ug/L	P376210	
		Diuron	0.010		ug/L	P376210	
		Fenuron	0.022	I	ug/L	P376210	
		Fluridone**	8.0E-04	U	ug/L	P376210	
		Imazapyr**	0.0040	U	ug/L	P376210	
		Hydrocodone**	0.0020	U	ug/L	P376210	
		Ibuprofen**	0.020	U	ug/L	P376210	
		Imidacloprid	0.0037	I	ug/L	P376210	MS
		Linuron	0.0040	U	ug/L	P376210	
		Mandestrobin**	0.0020	UJ	ug/L	P376210	
		MCPP	0.0020	U	ug/L	P376210	MS
		Naproxen**	0.0080	U	ug/L	P376210	
		Primidone**	0.0040	U	ug/L	P376210	
		Pyraclostrobin**	0.0020	U	ug/L	P376210	
		Thiamethoxam**	0.0020	U	ug/L	P376210	

Field ID: G1NE0020 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2145354	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P376210	
		Triclopyr**	0.0040	U	ug/L	P376210	
2145368	EPA 200.7 Rev. 4.4	Barium	7.7		ug/L	P376573	
		Calcium	18.0		mg/L	P376573	
		Iron	390		ug/L	P376573	
		Magnesium	6.08		mg/L	P376573	
		Potassium	5.3		mg/L	P376573	
		Sodium	6.1		mg/L	P376573	
		Zinc	5.7	I	ug/L	P376573	
	EPA 200.8 Rev. 5.4	Aluminum	439		ug/L	P376573	
		Antimony	0.052	I	ug/L	P376573	
		Arsenic	0.81		ug/L	P376573	
		Boron**	39.1		ug/L	P376573	
		Cadmium	0.092		ug/L	P376573	
		Chromium	1.6	I	ug/L	P376573	
		Copper	0.57	I	ug/L	P376573	
		Lead	0.39	I	ug/L	P376573	
		Nickel	0.65	I	ug/L	P376573	
		Selenium	0.20	U	ug/L	P376573	
		Silver	0.010	U	ug/L	P376573	
		Thallium	0.10	U	ug/L	P376573	

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 some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376171

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P376573

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: P376573

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: P376564

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376566

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376462

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: P376585

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376473

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376270

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P376180

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

Reference Method: EPA 8270E
Batch ID: P376287

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P376287

Component	Result	Code	Units
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P376291

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfluralin	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
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P376291

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

Reference Method: EPA 8276
Batch ID: P376291

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

Reference Method: EPA 8321B
Batch ID: P376159

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

Reference Method: EPA 8321B
Batch ID: P376210

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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P376238

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: SM 2120 B-2011
Batch ID: P376195

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P376196

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P376377

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

Reference Method: SM 2540 C-2011
Batch ID: P376547

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P376536

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P376381

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P376454

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: P376573

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.6		P	85 - 115
Calcium	102		P	85 - 115
Iron	106		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	102		P	85 - 115
Sodium	103		P	85 - 115
Zinc	97.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P376573

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.6		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	98.8		P	85 - 115
Boron	97.3		P	85 - 115
Cadmium	97.7		P	85 - 115
Chromium	98.8		P	85 - 115
Copper	97.7		P	85 - 115
Lead	101		P	85 - 115
Nickel	99.4		P	85 - 115
Selenium	98.3		P	85 - 115
Silver	106		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376564

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376566

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376462

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376585

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: P376473

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: P376270

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: P376180

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

Reference Method: EPA 8270E
Batch ID: P376287

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.2	96.7	P/P	69 - 122
Alachlor	95.1	96.3	P/P	71 - 120
Ametryn	108	100	P/P	47 - 138
Atrazine	94.9	98.7	P/P	74 - 124
Atrazine Desethyl	93.5	84.9	P/P	38 - 138
Azinphos Methyl	112	95.3	P/P	69 - 154
Bromacil	90.3	92.9	P/P	39 - 121
Butylate	53.4	55.4	P/P	27 - 87.0
Chlorpyrifos Ethyl	100	98.3	P/P	69 - 118
Chlorpyrifos Methyl	96.0	93.1	P/P	70 - 120
Cyanazine	111	93.9	P/P	20 - 250
Demeton	85.9	78.1	P/P	39 - 118
Diazinon	97.6	95.9	P/P	68 - 127
Dimethenamid	94.6	97.5	P/P	66 - 125
Disulfoton	93.5	88.8	P/P	52 - 126
Dithiopyr	93.4	97.4	P/P	67 - 127
EPTC	53.9	60.8	P/P	24 - 88.0
Ethion	90.3	101	P/P	51 - 132
Ethoprop	76.2	72.7	P/P	58 - 117
Fenamiphos	95.0	99.1	P/P	38 - 139
Fipronil	99.5	101	P/P	61 - 124
Fipronil Desulfinyl	94.6	101	P/P	47 - 120
Fipronil Sulfide	84.4	87.7	P/P	56 - 119
Fipronil Sulfone	83.6	92.4	P/P	50 - 117
Fonofos	82.6	76.3	P/P	60 - 121
Hexazinone	98.2	106	P/P	55 - 137
Malathion	85.6	104	P/P	66 - 126
Metalaxyl	93.7	99.4	P/P	33 - 140
Metolachlor	90.4	98.5	P/P	69 - 119
Metribuzin	132	93.4	P/P	31 - 238
Mevinphos	78.7	72.1	P/P	42 - 113
Molinate	66.1	66.5	P/P	32 - 96.0
Norflurazon	88.3	96.7	P/P	54 - 123
Oxadiazon	82.1	90.4	P/P	63 - 128

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P376287

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	89.5	89.3	P/P	72 - 111
Parathion Methyl	101	93.3	P/P	74 - 126
Pendimethalin	88.0	91.6	P/P	61 - 131
Phorate	92.7	87.5	P/P	51 - 115
Prodiamine	45.6	103	P/P	38 - 144
Prometon	96.0	96.9	P/P	54 - 119
Prometryn	101	107	P/P	63 - 120
Simazine	94.4	97.6	P/P	75 - 126
Tebuconazole	50.9	89.7	P/P	20 - 119
Terbufos	93.6	85.8	P/P	64 - 116
Terbuthylazine	90.7	97.7	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P376291

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	56.8	50.5	P/P	20 - 93.0
Alpha-BHC	95.0	90.6	P/P	55 - 133
Alpha-Chlordane	79.4	72.0	P/P	58 - 112
Beta-BHC	104	94.8	P/P	54 - 168
Bifenthrin	86.7	78.0	P/P	30 - 134
Carbophenothion	96.1	75.0	P/P	26 - 147
Chlorothalonil	89.3	67.2	P/P	20 - 155
Cis-Nonachlor	76.5	68.4	P/P	54 - 115
Cypermethrin	90.1	76.3	P/P	40 - 137
DDD-p,p'	85.9	78.1	P/P	65 - 129
DDE-p,p'	75.5	69.0	P/P	57 - 116
DDT-p,p'	85.6	79.1	P/P	53 - 133
Delta-BHC	117	102	P/P	59 - 178
Dicofol	96.7	82.3	P/P	24 - 138
Dieldrin	82.9	75.8	P/P	60 - 120
Endosulfan I	86.2	77.2	P/P	64 - 118
Endosulfan II	84.6	79.1	P/P	58 - 142
Endosulfan Sulfate	95.4	81.8	P/P	60 - 127
Endrin	83.5	77.0	P/P	59 - 122
Endrin Aldehyde	86.0	79.4	P/P	49 - 132
Endrin Ketone	95.8	85.7	P/P	64 - 121
Ethalfluralin	88.6	73.9	P/P	60 - 126
Gamma-BHC	95.3	88.7	P/P	57 - 154
Gamma-Chlordane	77.7	69.5	P/P	56 - 110
Heptachlor	71.9	63.7	P/P	46 - 96.0
Heptachlor Epoxide	81.5	75.3	P/P	61 - 112
Hexachlorobenzene	74.5	67.9	P/P	44 - 98.0
Methoxychlor	96.5	89.5	P/P	63 - 134
Mirex	74.7	65.0	P/P	45 - 100
Permethrin	88.9	76.5	P/P	53 - 115
Trans-Nonachlor	74.7	67.3	P/P	47 - 110
Trifluralin	87.7	78.7	P/P	39 - 142

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P376291

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.9	96.7	P/P	43 - 128
Toxaphene	86.1	87.6	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P376159

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	114		P	40 - 150
AMPA	96.6		P	40 - 150
Endothall	92.6		P	40 - 150
Glufosinate	92.9		P	40 - 150
Glyphosate	118		P	40 - 140
Sucralose	95.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P376210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	40 - 160
Acetaminophen	103		P	30 - 160
Acetamiprid	95.8		P	40 - 160
Afidopyropen	92.1		P	40 - 160
Bentazon	69.7		P	30 - 160
Benzovindiflupyr	93.1		P	40 - 160
Carbamazepine	92.6		P	40 - 160
Clothianidin	94.2		P	40 - 160
Dinotefuran	98.4		P	40 - 160
Diuron	79.0		P	40 - 160
Fenuron	99.2		P	40 - 160
Fluridone	90.1		P	40 - 160
Hydrocodone	106		P	40 - 160
Ibuprofen	69.7		P	30 - 160
Imazapyr	97.6		P	40 - 160
Imidacloprid	104		P	40 - 160
Linuron	56.6		P	40 - 160
Mandestrobin	91.5		P	40 - 160
MCPP	144		P	40 - 160
Naproxen	43.0		P	40 - 160
Primidone	92.8		P	40 - 160
Pyraclostrobin	90.6		P	30 - 160
Thiamethoxam	89.5		P	40 - 160
Tolfenpyrad	52.8		P	40 - 160
Triclopyr	89.6		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P376238

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	68.1		P	40 - 160
Aldicarb	51.4		P	30 - 160
Aldicarb Sulfone	76.9		P	40 - 160
Aldicarb Sulfoxide	70.7		P	40 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P376238

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbaryl	59.3		P	40 - 160
Carbofuran	62.2		P	40 - 160
Methiocarb	55.3		P	40 - 160
Methomyl	71.1		P	40 - 160
Oxamyl	68.4		P	40 - 160
Propoxur	54.0		P	40 - 160

Reference Method: SM 2120 B-2011
Batch ID: P376195

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2120 B-2011
Batch ID: P376196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P376377

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

Reference Method: SM 4500 F-C-2011
Batch ID: P376381

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P376454

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P376573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145468	Barium	96.8	95.5	P/P	80 - 120
2145468	Iron	103	103	P/P	80 - 120
2145468	Magnesium	103		P	80 - 120
2145468	Potassium	99.1	101	P/P	80 - 120
2145468	Sodium	104		P	80 - 120
2145468	Zinc	96.3	95.1	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P376573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145468	Aluminum	95.3	98.0	P/P	80 - 120
2145468	Antimony	103	106	P/P	80 - 120
2145468	Arsenic	99.7	102	P/P	80 - 120
2145468	Boron	95.7	98.4	P/P	80 - 120
2145468	Cadmium	99.6	103	P/P	80 - 120
2145468	Chromium	97.8	99.1	P/P	80 - 120
2145468	Copper	92.2	94.6	P/P	80 - 120
2145468	Lead	102	105	P/P	80 - 120
2145468	Nickel	93.0	96.6	P/P	80 - 120
2145468	Selenium	96.2	98.9	P/P	80 - 120
2145468	Silver	106	106	P/P	80 - 120
2145468	Thallium	110	114	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376564

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145161	Chloride	98.1	97.3	P/P	90 - 110
2145253	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376566

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145161	Sulfate	98.7	98.1	P/P	90 - 110
2145253	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145409	Ammonia-N	98.0	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376585

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145302	Kjeldahl Nitrogen	105	101	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376473

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145337	NO2NO3-N	97.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145334	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P376180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145335	O-Phosphate-P	99.8	96.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P376287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145488	Acetochlor	92.6	87.4	P/P	63 - 129
2145488	Alachlor	104	94.7	P/P	65 - 127
2145488	Ametryn	135	129	P/P	40 - 164
2145488	Azinphos Methyl	108	129	P/P	49 - 180
2145488	Bromacil	89.8	151	P/F	48 - 130
2145488	Butylate	50.9	52.9	P/P	10 - 94.0
2145488	Chlorpyrifos Ethyl	101	86.3	P/P	58 - 123
2145488	Chlorpyrifos Methyl	93.5	93.2	P/P	58 - 125
2145488	Cyanazine	105	102	P/P	24 - 253
2145488	Demeton	94.0	95.5	P/P	25 - 149
2145488	Diazinon	108	101	P/P	59 - 144
2145488	Dimethenamid	97.3	91.3	P/P	46 - 139
2145488	Disulfoton	90.9	90.3	P/P	54 - 132
2145488	Dithiopyr	88.5	80.7	P/P	64 - 130
2145488	EPTC	50.5	54.6	P/P	10 - 92.0
2145488	Ethion	92.5	90.6	P/P	30 - 148
2145488	Ethoprop	74.6	69.9	P/P	50 - 130
2145488	Fenamiphos	95.8	96.8	P/P	49 - 142
2145488	Fipronil	92.1	91.1	P/P	46 - 140
2145488	Fipronil Desulfinyl	98.3	98.0	P/P	30 - 121
2145488	Fipronil Sulfide	92.5	82.7	P/P	31 - 136
2145488	Fipronil Sulfone	86.9	81.9	P/P	16 - 136
2145488	Fonofos	90.9	90.5	P/P	55 - 129
2145488	Malathion	88.4	83.4	P/P	56 - 135
2145488	Metalaxyl	85.5	75.7	P/P	54 - 135
2145488	Mevinphos	92.4	93.1	P/P	33 - 131
2145488	Molinate	71.5	73.3	P/P	14 - 98.0
2145488	Oxadiazon	70.1	65.5	P/F	67 - 116
2145488	Parathion Ethyl	100	96.1	P/P	66 - 118
2145488	Parathion Methyl	112	113	P/P	64 - 136
2145488	Pendimethalin	100	93.8	P/P	59 - 144
2145488	Phorate	93.2	97.6	P/P	42 - 130
2145488	Prodiamine	60.2	54.3	P/P	42 - 148
2145488	Prometon	93.9	83.1	P/P	59 - 134

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P376287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145488	Prometryn	99.8	92.1	P/P	54 - 135
2145488	Tebuconazole	84.3	56.9	P/P	10 - 131
2145488	Terbufos	98.9	101	P/P	57 - 131
2145488	Terbuthylazine	12.4	8.61	F/F	68 - 125

Reference Method: EPA 8270E
Batch ID: P376291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145508	Aldrin	55.2	57.6	P/P	25 - 92.0
2145508	Alpha-BHC	89.8	101	P/P	48 - 150
2145508	Alpha-Chlordane	74.2	74.6	P/P	50 - 115
2145508	Beta-BHC	95.2	125	P/P	39 - 184
2145508	Bifenthrin	80.9	87.3	P/P	46 - 116
2145508	Carbophenothion	90.6	102	P/P	27 - 180
2145508	Chlorothalonil	94.6	94.3	P/P	10 - 216
2145508	Cis-Nonachlor	70.8	70.0	P/P	55 - 112
2145508	Cypermethrin	79.1	86.5	P/P	40 - 153
2145508	DDD-p,p'	80.6	80.1	P/P	53 - 128
2145508	DDE-p,p'	74.2	73.8	P/P	48 - 116
2145508	DDT-p,p'	79.7	83.8	P/P	47 - 128
2145508	Delta-BHC	97.2	135	P/P	48 - 221
2145508	Dicofol	87.0	94.6	P/P	10 - 147
2145508	Dieldrin	76.6	79.2	P/P	48 - 128
2145508	Endosulfan I	78.8	83.3	P/P	58 - 126
2145508	Endosulfan II	81.8	83.4	P/P	50 - 150
2145508	Endosulfan Sulfate	82.3	91.2	P/P	56 - 130
2145508	Endrin	78.7	80.5	P/P	50 - 126
2145508	Endrin Aldehyde	78.6	80.5	P/P	12 - 145
2145508	Endrin Ketone	85.8	93.9	P/P	59 - 132
2145508	Ethalfluralin	78.8	79.8	P/P	65 - 122
2145508	Gamma-BHC	89.6	121	P/P	40 - 190
2145508	Gamma-Chlordane	72.1	71.8	P/P	50 - 112
2145508	Heptachlor	67.1	71.0	P/P	41 - 98.0
2145508	Heptachlor Epoxide	76.8	77.8	P/P	55 - 117
2145508	Hexachlorobenzene	67.4	70.3	P/P	47 - 91.0
2145508	Methoxychlor	88.7	97.4	P/P	55 - 133
2145508	Mirex	69.2	75.5	P/P	44 - 101
2145508	Permethrin	81.0	88.8	P/P	52 - 124
2145508	Trans-Nonachlor	69.8	69.9	P/P	53 - 99.0
2145508	Trifluralin	79.5	85.9	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P376291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2146020	Chlordane	118	108	P/P	34 - 136
2146020	Toxaphene	97.9	92.7	P/P	22 - 152

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P376159

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145196	Acesulfame K	67.4	69.8	P/P	40 - 150
2145196	AMPA	108	116	P/P	40 - 150
2145196	Endothall	100	100	P/P	40 - 150
2145196	Glufosinate	88.9	105	P/P	40 - 150
2145196	Glyphosate	110	114	P/P	40 - 140
2145196	Sucralose	85.6	84.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P376210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2144517	2,4-D	160	149	F/P	40 - 160
2144517	Acetaminophen	117	119	P/P	30 - 160
2144517	Acetamiprid	111	112	P/P	40 - 160
2144517	Afidopyropen	108	104	P/P	40 - 160
2144517	Benzovindiflupyr	103	105	P/P	40 - 160
2144517	Carbamazepine	70.2	92.9	P/P	40 - 160
2144517	Clothianidin	117	104	P/P	40 - 160
2144517	Dinotefuran	123	127	P/P	40 - 160
2144517	Diuron	80.2	81.4	P/P	40 - 160
2144517	Fenuron	94.0	97.9	P/P	40 - 160
2144517	Hydrocodone	97.0	91.9	P/P	40 - 160
2144517	Ibuprofen	73.1	75.9	P/P	30 - 160
2144517	Imidacloprid	183	167	F/F	40 - 160
2144517	Linuron	71.5	72.9	P/P	40 - 160
2144517	Mandestrobin	90.3	95.6	P/P	40 - 160
2144517	MCPP	149	165	P/F	40 - 160
2144517	Naproxen	99.8	98.7	P/P	40 - 160
2144517	Primidone	101	101	P/P	40 - 160
2144517	Pyraclostrobin	92.7	97.4	P/P	30 - 160
2144517	Thiamethoxam	152	152	P/P	40 - 160
2144517	Tolfenpyrad	55.9	58.4	P/P	40 - 160
2144517	Triclopyr	101	121	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P376238

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145352	3-Hydroxycarbofuran	77.3	65.4	P/P	40 - 160
2145352	Aldicarb	55.4	41.0	P/P	30 - 160
2145352	Aldicarb Sulfone	85.8	88.3	P/P	40 - 160
2145352	Aldicarb Sulfoxide	37.0	35.1	F/F	40 - 160
2145352	Carbaryl	55.6	53.3	P/P	40 - 160
2145352	Carbofuran	45.6	53.3	P/P	40 - 160
2145352	Methiocarb	49.3	53.1	P/P	40 - 160
2145352	Methomyl	54.8	65.7	P/P	40 - 160
2145352	Oxamyl	61.6	56.0	P/P	40 - 160
2145352	Propoxur	36.7	41.9	F/P	40 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P376381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145832	Fluoride	102	102	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P376454

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2145334	Organic Carbon	98.3	100	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P376171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145333	Turbidity	4.06	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P376573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145468	Barium	1.27	Spike	P	0 - 20
2145468	Calcium	1.23	Spike	P	0 - 20
2145468	Iron	0.554	Spike	P	0 - 20
2145468	Magnesium	2.33	Spike	P	0 - 20
2145468	Potassium	1.30	Spike	P	0 - 20
2145468	Sodium	1.85	Spike	P	0 - 20
2145468	Zinc	1.30	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P376573

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145468	Aluminum	2.81	Spike	P	0 - 20
2145468	Antimony	2.85	Spike	P	0 - 20
2145468	Arsenic	2.57	Spike	P	0 - 20
2145468	Boron	1.95	Spike	P	0 - 20
2145468	Cadmium	2.88	Spike	P	0 - 20
2145468	Chromium	1.31	Spike	P	0 - 20
2145468	Copper	2.47	Spike	P	0 - 20
2145468	Lead	2.64	Spike	P	0 - 20
2145468	Nickel	3.70	Spike	P	0 - 20
2145468	Selenium	2.73	Spike	P	0 - 20
2145468	Silver	0.0133	Spike	P	0 - 20
2145468	Thallium	3.31	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376564

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145161	Chloride	0.624	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145161	Sulfate	0.547	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145409	Ammonia-N	0.373	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P376585

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145302	Kjeldahl Nitrogen	2.66	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P376473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145337	NO2NO3-N	1.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P376270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145334	Total-P	0.951	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P376180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145335	O-Phosphate-P	2.91	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P376287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145488	Acetochlor	5.79	Spike	P	0 - 30
2145488	Alachlor	9.62	Spike	P	0 - 30
2145488	Ametryn	4.16	Spike	P	0 - 30
2145488	Atrazine	0.0330	Spike	P	0 - 30
2145488	Atrazine Desethyl	1.39	Spike	P	0 - 30
2145488	Azinphos Methyl	18.1	Spike	P	0 - 30
2145488	Bromacil	50.8	Spike	F	0 - 30
2145488	Butylate	3.94	Spike	P	0 - 30
2145488	Chlorpyrifos Ethyl	15.4	Spike	P	0 - 30
2145488	Chlorpyrifos Methyl	0.321	Spike	P	0 - 30
2145488	Cyanazine	2.92	Spike	P	0 - 30
2145488	Demeton	1.64	Spike	P	0 - 30
2145488	Diazinon	6.69	Spike	P	0 - 30
2145488	Dimethenamid	6.31	Spike	P	0 - 30
2145488	Disulfoton	0.608	Spike	P	0 - 30
2145488	Dithiopyr	9.17	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P376287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145488	EPTC	7.75	Spike	P	0 - 30
2145488	Ethion	2.03	Spike	P	0 - 30
2145488	Ethoprop	6.48	Spike	P	0 - 30
2145488	Fenamiphos	1.08	Spike	P	0 - 30
2145488	Fipronil	1.04	Spike	P	0 - 30
2145488	Fipronil Desulfinyl	0.317	Spike	P	0 - 30
2145488	Fipronil Sulfide	11.3	Spike	P	0 - 30
2145488	Fipronil Sulfone	5.93	Spike	P	0 - 30
2145488	Fonofos	0.452	Spike	P	0 - 30
2145488	Hexazinone	4.37	Spike	P	0 - 30
2145488	Malathion	5.74	Spike	P	0 - 30
2145488	Metalaxyl	7.66	Spike	P	0 - 30
2145488	Metolachlor	3.13	Spike	P	0 - 30
2145488	Metribuzin	3.16	Spike	P	0 - 30
2145488	Mevinphos	0.759	Spike	P	0 - 30
2145488	Molinate	2.47	Spike	P	0 - 30
2145488	Norflurazon	6.19	Spike	P	0 - 30
2145488	Oxadiazon	6.00	Spike	P	0 - 30
2145488	Parathion Ethyl	4.24	Spike	P	0 - 30
2145488	Parathion Methyl	0.878	Spike	P	0 - 30
2145488	Pendimethalin	6.78	Spike	P	0 - 30
2145488	Phorate	4.55	Spike	P	0 - 30
2145488	Prodiamine	10.2	Spike	P	0 - 30
2145488	Prometon	12.1	Spike	P	0 - 30
2145488	Prometryn	8.02	Spike	P	0 - 30
2145488	Simazine	0.375	Spike	P	0 - 30
2145488	Tebuconazole	38.8	Spike	F	0 - 30
2145488	Terbufos	1.89	Spike	P	0 - 30
2145488	Terbuthylazine	4.34	Spike	P	0 - 30
LFB	Acetochlor	1.53	LCS	P	0 - 30
LFB	Alachlor	1.18	LCS	P	0 - 30
LFB	Ametryn	7.78	LCS	P	0 - 30
LFB	Atrazine	3.91	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.65	LCS	P	0 - 30
LFB	Azinphos Methyl	15.7	LCS	P	0 - 30
LFB	Bromacil	2.85	LCS	P	0 - 30
LFB	Butylate	3.69	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.66	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.05	LCS	P	0 - 30
LFB	Cyanazine	16.9	LCS	P	0 - 30
LFB	Demeton	9.49	LCS	P	0 - 30
LFB	Diazinon	1.81	LCS	P	0 - 30
LFB	Dimethenamid	3.04	LCS	P	0 - 30
LFB	Disulfoton	5.13	LCS	P	0 - 30
LFB	Dithiopyr	4.17	LCS	P	0 - 30
LFB	EPTC	12.2	LCS	P	0 - 30
LFB	Ethion	11.0	LCS	P	0 - 30
LFB	Ethoprop	4.67	LCS	P	0 - 30
LFB	Fenamiphos	4.13	LCS	P	0 - 30
LFB	Fipronil	1.19	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	6.18	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P376287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	3.80	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.98	LCS	P	0 - 30
LFB	Fonofos	7.93	LCS	P	0 - 30
LFB	Hexazinone	7.90	LCS	P	0 - 30
LFB	Malathion	19.7	LCS	P	0 - 30
LFB	Metalaxyl	5.86	LCS	P	0 - 30
LFB	Metolachlor	8.64	LCS	P	0 - 30
LFB	Metribuzin	34.5	LCS	F	0 - 30
LFB	Mevinphos	8.87	LCS	P	0 - 30
LFB	Molinate	0.583	LCS	P	0 - 30
LFB	Norflurazon	9.13	LCS	P	0 - 30
LFB	Oxadiazon	9.71	LCS	P	0 - 30
LFB	Parathion Ethyl	0.323	LCS	P	0 - 30
LFB	Parathion Methyl	7.88	LCS	P	0 - 30
LFB	Pendimethalin	3.98	LCS	P	0 - 30
LFB	Phorate	5.70	LCS	P	0 - 30
LFB	Prodiamine	77.3	LCS	F	0 - 30
LFB	Prometon	0.933	LCS	P	0 - 30
LFB	Prometryn	5.77	LCS	P	0 - 30
LFB	Simazine	3.35	LCS	P	0 - 30
LFB	Tebuconazole	55.3	LCS	F	0 - 30
LFB	Terbufos	8.68	LCS	P	0 - 30
LFB	Terbuthylazine	7.43	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P376291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145508	Aldrin	4.20	Spike	P	0 - 30
2145508	Alpha-BHC	11.8	Spike	P	0 - 30
2145508	Alpha-Chlordane	0.487	Spike	P	0 - 30
2145508	Beta-BHC	26.8	Spike	P	0 - 30
2145508	Bifenthrin	7.59	Spike	P	0 - 30
2145508	Carbophenothion	12.1	Spike	P	0 - 30
2145508	Chlorothalonil	0.318	Spike	P	0 - 30
2145508	Cis-Nonachlor	1.03	Spike	P	0 - 30
2145508	Cypermethrin	8.91	Spike	P	0 - 30
2145508	DDD-p,p'	0.679	Spike	P	0 - 30
2145508	DDE-p,p'	0.545	Spike	P	0 - 30
2145508	DDT-p,p'	5.04	Spike	P	0 - 30
2145508	Delta-BHC	32.3	Spike	F	0 - 30
2145508	Dicofol	8.42	Spike	P	0 - 30
2145508	Dieldrin	3.44	Spike	P	0 - 30
2145508	Endosulfan I	5.55	Spike	P	0 - 30
2145508	Endosulfan II	1.87	Spike	P	0 - 30
2145508	Endosulfan Sulfate	10.3	Spike	P	0 - 30
2145508	Endrin	2.34	Spike	P	0 - 30
2145508	Endrin Aldehyde	2.46	Spike	P	0 - 30
2145508	Endrin Ketone	8.98	Spike	P	0 - 30
2145508	Ethalfluralin	1.25	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P376291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145508	Gamma-BHC	30.0	Spike	P	0 - 30
2145508	Gamma-Chlordane	0.429	Spike	P	0 - 30
2145508	Heptachlor	5.61	Spike	P	0 - 30
2145508	Heptachlor Epoxide	1.23	Spike	P	0 - 30
2145508	Hexachlorobenzene	4.14	Spike	P	0 - 30
2145508	Methoxychlor	9.32	Spike	P	0 - 30
2145508	Mirex	8.71	Spike	P	0 - 30
2145508	Permethrin	9.24	Spike	P	0 - 30
2145508	Trans-Nonachlor	0.166	Spike	P	0 - 30
2145508	Trifluralin	7.84	Spike	P	0 - 30
LFB	Aldrin	11.6	LCS	P	0 - 30
LFB	Alpha-BHC	4.74	LCS	P	0 - 30
LFB	Alpha-Chlordane	9.78	LCS	P	0 - 30
LFB	Beta-BHC	9.65	LCS	P	0 - 30
LFB	Bifenthrin	10.5	LCS	P	0 - 30
LFB	Carbophenothion	24.8	LCS	P	0 - 30
LFB	Chlorothalonil	28.2	LCS	P	0 - 30
LFB	Cis-Nonachlor	11.2	LCS	P	0 - 30
LFB	Cypermethrin	16.6	LCS	P	0 - 30
LFB	DDD-p,p'	9.52	LCS	P	0 - 30
LFB	DDE-p,p'	9.00	LCS	P	0 - 30
LFB	DDT-p,p'	7.86	LCS	P	0 - 30
LFB	Delta-BHC	13.3	LCS	P	0 - 30
LFB	Dicofol	16.0	LCS	P	0 - 30
LFB	Dieldrin	8.92	LCS	P	0 - 30
LFB	Endosulfan I	11.1	LCS	P	0 - 30
LFB	Endosulfan II	6.65	LCS	P	0 - 30
LFB	Endosulfan Sulfate	15.5	LCS	P	0 - 30
LFB	Endrin	8.04	LCS	P	0 - 30
LFB	Endrin Aldehyde	8.07	LCS	P	0 - 30
LFB	Endrin Ketone	11.2	LCS	P	0 - 30
LFB	Ethalfluralin	18.1	LCS	P	0 - 30
LFB	Gamma-BHC	7.19	LCS	P	0 - 30
LFB	Gamma-Chlordane	11.1	LCS	P	0 - 30
LFB	Heptachlor	12.1	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.90	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.23	LCS	P	0 - 30
LFB	Methoxychlor	7.53	LCS	P	0 - 30
LFB	Mirex	14.0	LCS	P	0 - 30
LFB	Permethrin	15.0	LCS	P	0 - 30
LFB	Trans-Nonachlor	10.4	LCS	P	0 - 30
LFB	Trifluralin	10.8	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P376291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2146020	Chlordane	9.33	Spike	P	0 - 30
2146020	Toxaphene	5.47	Spike	P	0 - 30
LFB	Chlordane	5.10	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P376291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Toxaphene	1.78	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P376159

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145196	Acesulfame K	3.56	Spike	P	0 - 30
2145196	AMPA	6.95	Spike	P	0 - 30
2145196	Endothall	0.169	Spike	P	0 - 30
2145196	Glufosinate	16.6	Spike	P	0 - 30
2145196	Glyphosate	3.81	Spike	P	0 - 30
2145196	Sucralose	1.71	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P376210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2144517	2,4-D	5.47	Spike	P	0 - 30
2144517	Acetaminophen	1.61	Spike	P	0 - 30
2144517	Acetamiprid	0.488	Spike	P	0 - 30
2144517	Afidopyropen	3.76	Spike	P	0 - 30
2144517	Bentazon	12.0	Spike	P	0 - 30
2144517	Benzovindiflupyr	2.00	Spike	P	0 - 30
2144517	Carbamazepine	27.8	Spike	P	0 - 30
2144517	Clothianidin	11.6	Spike	P	0 - 30
2144517	Dinotefuran	3.15	Spike	P	0 - 30
2144517	Diuron	1.39	Spike	P	0 - 30
2144517	Fenuron	4.07	Spike	P	0 - 30
2144517	Fluridone	1.88	Spike	P	0 - 30
2144517	Hydrocodone	5.37	Spike	P	0 - 30
2144517	Ibuprofen	3.88	Spike	P	0 - 30
2144517	Imazapyr	15.9	Spike	P	0 - 30
2144517	Imidacloprid	7.44	Spike	P	0 - 30
2144517	Linuron	1.93	Spike	P	0 - 30
2144517	Mandestrobin	5.76	Spike	P	0 - 30
2144517	MCPP	10.0	Spike	P	0 - 30
2144517	Naproxen	1.10	Spike	P	0 - 30
2144517	Primidone	0.124	Spike	P	0 - 30
2144517	Pyraclostrobin	4.94	Spike	P	0 - 30
2144517	Thiamethoxam	0.145	Spike	P	0 - 30
2144517	Tolfenpyrad	4.30	Spike	P	0 - 30
2144517	Triclopyr	17.7	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P376238

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145352	3-Hydroxycarbofuran	16.7	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P376238

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145352	Aldicarb	29.8	Spike	P	0 - 30
2145352	Aldicarb Sulfone	2.92	Spike	P	0 - 30
2145352	Aldicarb Sulfoxide	5.47	Spike	P	0 - 30
2145352	Carbaryl	4.17	Spike	P	0 - 30
2145352	Carbofuran	15.6	Spike	P	0 - 30
2145352	Methiocarb	7.30	Spike	P	0 - 30
2145352	Methomyl	18.2	Spike	P	0 - 30
2145352	Oxamyl	9.48	Spike	P	0 - 30
2145352	Propoxur	13.2	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P376195

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145161	Color (true)	2.12	Sample	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P376196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145512	Color (true)	1.95	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P376377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145832	Total Alkalinity	0.0199	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P376547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145251	TDS	5.24	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P376381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145832	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P376454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2145334	Organic Carbon	0.963	Spike	P	0 - 20

Quality Assurance Report
Precision

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2145352
Field Sample ID: 21030138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	42.2	P	30 - 160

Lab Sample ID: 2145353
Field Sample ID: 21030138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	143	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	64.9	P	30 - 160
EPA 8321B	Endothall-d6	51.8	P	30 - 160
EPA 8321B	Endothall-d6	51.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.2	P	30 - 160
EPA 8321B	Primidone-d5	78.1	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2145354
Field Sample ID: G1NE0020

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	140	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.4	P	30 - 160
EPA 8321B	Diuron-d6	73.8	P	30 - 160
EPA 8321B	Endothall-d6	53.4	P	30 - 160
EPA 8321B	Endothall-d6	53.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.7	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	99.3	P	30 - 160
EPA 8321B	Sucralose-d6	99.3	P	30 - 160

Lab Sample ID: 2145358
Field Sample ID: 21030138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	92.4	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	69.4	P	35 - 106
EPA 8276	Decachlorobiphenyl	67.7	P	30 - 103
EPA 8276	PCNB	118	P	37 - 143

Lab Sample ID: 2145359
Field Sample ID: 21030138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	122	P	68 - 130
EPA 8270E	Terbufos-d10	124	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A96471
Included Lab Sample IDs: 2145333, 2145336

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A96476
Included Lab Sample IDs: 2145335, 2145338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.8	96.8	P/P	90 - 110
O-Phosphate-P	96.9	97.4	P/P	90 - 110

Reference Method: SM 2120 B-2011
Run ID: A96487
Included Lab Sample IDs: 2145333, 2145336

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

Reference Method: EPA 8321B
Run ID: A96502
Included Lab Sample IDs: 2145353, 2145354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	92.7	P/P	60 - 160
Endothall	97.4	99.7	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A96534
Included Lab Sample IDs: 2145353, 2145354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	98.8	101	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A96537
Included Lab Sample IDs: 2145334, 2145337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.6	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A96559
Included Lab Sample IDs: 2145333, 2145336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-2011
Run ID: A96559
Included Lab Sample IDs: 2145333, 2145336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	103	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A96584
Included Lab Sample IDs: 2145334, 2145337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.3	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A96586
Included Lab Sample IDs: 2145334, 2145337

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

Reference Method: EPA 8321B
Run ID: A96588
Included Lab Sample IDs: 2145353, 2145354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.8	92.9	P/P	50 - 150
3-Hydroxycarbofuran	85.6	98.0	P/P	60 - 150
Acetaminophen	124	118	P/P	60 - 160
Acetamiprid	116	107	P/P	50 - 150
Afidopyropen	115	107	P/P	50 - 150
Aldicarb	93.8	92.8	P/P	60 - 150
Aldicarb Sulfone	95.7	100	P/P	50 - 150
Aldicarb Sulfoxide	89.1	85.5	P/P	50 - 150
Bentazon	87.1	88.0	P/P	50 - 160
Benzovindiflupyr	104	107	P/P	50 - 150
Carbamazepine	110	114	P/P	60 - 150
Carbaryl	99.8	90.3	P/P	60 - 150
Carbofuran	87.4	98.8	P/P	50 - 150
Clothianidin	107	94.4	P/P	60 - 150
Dinotefuran	117	104	P/P	50 - 150
Diuron	108	104	P/P	60 - 150
Fenuron	124	121	P/P	60 - 150
Fluridone	114	110	P/P	60 - 160
Hydrocodone	110	107	P/P	60 - 150
Ibuprofen	121	119	P/P	50 - 160
Imazapyr	119	97.9	P/P	50 - 150
Imidacloprid	115	104	P/P	60 - 150
Linuron	104	100	P/P	60 - 150
Mandestrobin	113	111	P/P	50 - 150
MCPP	88.7	89.4	P/P	50 - 150
Methiocarb	101	101	P/P	50 - 150
Methomyl	94.5	106	P/P	50 - 150
Naproxen	94.8	125	P/P	50 - 160
Oxamyl	84.8	92.4	P/P	50 - 150
Primidone	105	113	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A96588
Included Lab Sample IDs: 2145352

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propoxur	89.0	102	P/P	50 - 150
Pyraclostrobin	116	117	P/P	60 - 150
Thiamethoxam	107	99.7	P/P	50 - 150
Tolfenpyrad	102	104	P/P	60 - 150
Triclopyr	75.3	85.3	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A96590
Included Lab Sample IDs: 2145334, 2145337

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

Reference Method: EPA 8276
Run ID: A96606
Included Lab Sample IDs: 2145358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A96634
Included Lab Sample IDs: 2145333, 2145336

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

Reference Method: EPA 8270E
Run ID: A96636
Included Lab Sample IDs: 2145358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.4		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	89.8		P	80 - 120
Beta-BHC	115		P	80 - 120
Bifenthrin	95.0		P	80 - 120
Carbophenothion	87.0		P	80 - 120
Chlorothalonil	84.6		P	80 - 120
Cis-Nonachlor	86.1		P	80 - 120
Cypermethrin	88.1		P	80 - 120
DDD-p,p'	89.9		P	80 - 120
DDE-p,p'	89.8		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	108		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	89.8		P	80 - 120
Endosulfan I	88.9		P	80 - 120
Endosulfan II	91.9		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A96636
Included Lab Sample IDs: 2145358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan Sulfate	97.2		P	80 - 120
Endrin	90.0		P	80 - 120
Endrin Aldehyde	86.8		P	80 - 120
Endrin Ketone	97.5		P	80 - 120
Ethalfluralin	101		P	80 - 120
Gamma-BHC	96.5		P	80 - 120
Gamma-Chlordane	85.8		P	80 - 120
Heptachlor	90.4		P	80 - 120
Heptachlor Epoxide	90.5		P	80 - 120
Hexachlorobenzene	106		P	80 - 120
Methoxychlor	102		P	80 - 120
Mirex	98.0		P	80 - 120
Permethrin	92.4		P	80 - 120
Trans-Nonachlor	88.0		P	80 - 120
Trifluralin	102		P	80 - 120

Reference Method: EPA 8321B
Run ID: A96650
Included Lab Sample IDs: 2145353, 2145354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	96.1	88.7	P/P	60 - 160
Glufosinate	83.4	92.2	P/P	60 - 160
Glyphosate	109	114	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A96702
Included Lab Sample IDs: 2145334, 2145337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.0	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A96710
Included Lab Sample IDs: 2145367, 2145368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	97.3	99.0	P/P	95 - 105
Calcium	102	101	P/P	95 - 105
Iron	104	103	P/P	95 - 105
Magnesium	102	102	P/P	95 - 105
Potassium	101	101	P/P	95 - 105
Sodium	103	101	P/P	95 - 105
Zinc	97.0	99.6	P/P	95 - 105

Reference Method: EPA 8270E
Run ID: A96741
Included Lab Sample IDs: 2145359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.7		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A96741
Included Lab Sample IDs: 2145359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alachlor	103		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	97.2		P	80 - 120
Atrazine Desethyl	97.4		P	80 - 120
Azinphos Methyl	95.1		P	80 - 120
Bromacil	95.1		P	80 - 120
Butylate	105		P	80 - 120
Chlorpyrifos Ethyl	98.1		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	90.2		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	101		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	94.8		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	104		P	80 - 120
Ethion	99.7		P	80 - 120
Ethoprop	97.7		P	80 - 120
Fenamiphos	102		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	97.4		P	80 - 120
Fipronil Sulfone	99.9		P	80 - 120
Fonofos	97.7		P	80 - 120
Hexazinone	99.6		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	91.4		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	104		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	98.7		P	80 - 120
Parathion Ethyl	96.0		P	80 - 120
Parathion Methyl	98.2		P	80 - 120
Pendimethalin	95.8		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	96.2		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	102		P	80 - 120
Simazine	90.9		P	80 - 120
Tebuconazole	93.5		P	80 - 120
Terbufos	98.8		P	80 - 120
Terbuthylazine	99.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A96767
Included Lab Sample IDs: 2145367, 2145368

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A96767
Included Lab Sample IDs: 2145367, 2145368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	101	102	P/P	90 - 110
Antimony	103	101	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Arsenic	102	102	P/P	90 - 110
Boron	103	101	P/P	90 - 110
Boron	99.5	103	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Chromium	103	104	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Copper	102	104	P/P	90 - 110
Lead	102	102	P/P	90 - 110
Lead	102	104	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Nickel	104	103	P/P	90 - 110
Selenium	101	102	P/P	90 - 110
Selenium	102	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A96794
Included Lab Sample IDs: 2145367, 2145368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	103	101	P/P	90 - 110
Silver	104	103	P/P	90 - 110
Thallium	94.3	95.2	P/P	90 - 110
Thallium	95.2	92.6	P/P	90 - 110

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							4.06	
EPA 200.7 Rev. 4.4	Barium	98.6		96.8	95.5				1.27
	Calcium	102							1.23
	Iron	106		103	103				0.554
	Magnesium	102		103					2.33
	Potassium	102		99.1	101				1.30
	Sodium	103		104					1.85
	Zinc	97.3		96.3	95.1				1.30
EPA 200.8 Rev. 5.4	Aluminum	99.6		95.3	98.0				2.81
	Antimony	102		103	106				2.85
	Arsenic	98.8		99.7	102				2.57
	Boron	97.3		95.7	98.4				1.95
	Cadmium	97.7		99.6	103				2.88
	Chromium	98.8		97.8	99.1				1.31
	Copper	97.7		92.2	94.6				2.47
	Lead	101		102	105				2.64
	Nickel	99.4		93.0	96.6				3.70
	Selenium	98.3		96.2	98.9				2.73
	Silver	106		106	106				0.0133
	Thallium	107		110	114				3.31
EPA 300.0 Rev. 2.1	Chloride	99.2		98.1	97.3	97.6			0.624
	Sulfate	98.5		98.7	98.1	98.4			0.547
EPA 350.1 Rev. 2.0	Ammonia-N	97.3		98.0	97.6				0.373
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		105	101				2.66
EPA 353.2 Rev. 2.0	NO2NO3-N	100		97.5	98.5				1.02
EPA 365.1 Rev. 2.0	Total-P	104		104	103				0.951
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		99.8	96.1				2.91
EPA 8270E	Acetochlor	98.2	96.7	92.6	87.4		1.53		5.79
	Alachlor	95.1	96.3	104	94.7		1.18		9.62
	Aldrin	56.8	50.5	55.2	57.6		11.6		4.20
	Alpha-BHC	95.0	90.6	89.8	101		4.74		11.8
	Alpha-Chlordane	79.4	72.0	74.2	74.6		9.78		0.487
	Ametryn	108	100	135	129		7.78		4.16
	Atrazine	94.9	98.7				3.91		0.0330
	Atrazine Desethyl	93.5	84.9				9.65		1.39
	Azinphos Methyl	112	95.3	108	129		15.7		18.1
	Beta-BHC	104	94.8	95.2	125		9.65		26.8
	Bifenthrin	86.7	78.0	80.9	87.3		10.5		7.59
	Bromacil	90.3	92.9	89.8	151		2.85		50.8
	Butylate	53.4	55.4	50.9	52.9		3.69		3.94
	Carbophenothion	96.1	75.0	102	90.6		24.8		12.1
	Chlorothalonil	89.3	67.2	94.3	94.6		28.2		0.318
	Chlorpyrifos Ethyl	100	98.3	101	86.3		1.66		15.4
	Chlorpyrifos Methyl	96.0	93.1	93.5	93.2		3.05		0.321
	Cis-Nonachlor	76.5	68.4	70.8	70.0		11.2		1.03
	Cyanazine	111	93.9	105	102		16.9		2.92
	Cypermethrin	90.1	76.3	79.1	86.5		16.6		8.91
	DDD-p,p'	85.9	78.1	80.6	80.1		9.52		0.679
	DDE-p,p'	75.5	69.0	74.2	73.8		9.00		0.545
	DDT-p,p'	85.6	79.1	79.7	83.8		7.86		5.04
	Delta-BHC	117	102	135	97.2		13.3		32.3
	Demeton	85.9	78.1	94.0	95.5		9.49		1.64
	Diazinon	97.6	95.9	108	101		1.81		6.69
	Dicofol	96.7	82.3	87.0	94.6		16.0		8.42

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Dieldrin	82.9	75.8	76.6	79.2	8.92		3.44
	Dimethenamid	94.6	97.5	97.3	91.3	3.04		6.31
	Disulfoton	93.5	88.8	90.9	90.3	5.13		0.608
	Dithiopyr	93.4	97.4	88.5	80.7	4.17		9.17
	Endosulfan I	86.2	77.2	78.8	83.3	11.1		5.55
	Endosulfan II	84.6	79.1	81.8	83.4	6.65		1.87
	Endosulfan Sulfate	95.4	81.8	82.3	91.2	15.5		10.3
	Endrin	83.5	77.0	78.7	80.5	8.04		2.34
	Endrin Aldehyde	86.0	79.4	78.6	80.5	8.07		2.46
	Endrin Ketone	95.8	85.7	85.8	93.9	11.2		8.98
	EPTC	53.9	60.8	50.5	54.6	12.2		7.75
	Ethalfluralin	88.6	73.9	78.8	79.8	18.1		1.25
	Ethion	90.3	101	92.5	90.6	11.0		2.03
	Ethoprop	76.2	72.7	74.6	69.9	4.67		6.48
	Fenamiphos	95.0	99.1	95.8	96.8	4.13		1.08
	Fipronil	99.5	101	92.1	91.1	1.19		1.04
	Fipronil Desulfinyl	94.6	101	98.3	98.0	6.18		0.317
	Fipronil Sulfide	84.4	87.7	92.5	82.7	3.80		11.3
	Fipronil Sulfone	83.6	92.4	86.9	81.9	9.98		5.93
	Fonofos	82.6	76.3	90.9	90.5	7.93		0.452
	Gamma-BHC	95.3	88.7	121	89.6	7.19		30.0
	Gamma-Chlordane	77.7	69.5	72.1	71.8	11.1		0.429
	Heptachlor	71.9	63.7	67.1	71.0	12.1		5.61
	Heptachlor Epoxide	81.5	75.3	76.8	77.8	7.90		1.23
	Hexachlorobenzene	74.5	67.9	67.4	70.3	9.23		4.14
	Hexazinone	98.2	106			7.90		4.37
	Malathion	85.6	104	88.4	83.4	19.7		5.74
	Metalaxyl	93.7	99.4	85.5	75.7	5.86		7.66
	Methoxychlor	96.5	89.5	88.7	97.4	7.53		9.32
	Metolachlor	90.4	98.5			8.64		3.13
	Metribuzin	132	93.4			34.5		3.16
	Mevinphos	78.7	72.1	92.4	93.1	8.87		0.759
	Mirex	74.7	65.0	69.2	75.5	14.0		8.71
	Molinate	66.1	66.5	71.5	73.3	0.583		2.47
	Norflurazon	88.3	96.7			9.13		6.19
	Oxadiazon	82.1	90.4	70.1	65.5	9.71		6.00
	Parathion Ethyl	89.5	89.3	100	96.1	0.323		4.24
	Parathion Methyl	101	93.3	112	113	7.88		0.878
	Pendimethalin	88.0	91.6	100	93.8	3.98		6.78
	Permethrin	88.9	76.5	81.0	88.8	15.0		9.24
	Phorate	92.7	87.5	93.2	97.6	5.70		4.55
	Prodiamine	45.6	103	60.2	54.3	77.3		10.2
	Prometon	96.0	96.9	93.9	83.1	0.933		12.1
	Prometryn	101	107	99.8	92.1	5.77		8.02
	Simazine	94.4	97.6			3.35		0.375
	Tebuconazole	50.9	89.7	84.3	56.9	55.3		38.8
	Terbufos	93.6	85.8	98.9	101	8.68		1.89
	Terbuthylazine	90.7	97.7	12.4	8.61	7.43		4.34
	Trans-Nonachlor	74.7	67.3	69.8	69.9	10.4		0.166
	Trifluralin	87.7	78.7	79.5	85.9	10.8		7.84
EPA 8276	Chlordane	91.9	96.7	118	108	5.10		9.33
	Toxaphene	86.1	87.6	97.9	92.7	1.78		5.47
EPA 8321B	2,4-D	129		160	149			5.47
	3-Hydroxycarbofuran	68.1		77.3	65.4			16.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Acesulfame K	114	67.4	69.8			3.56
	Acetaminophen	103	117	119			1.61
	Acetamiprid	95.8	111	112			0.488
	Afidopyropen	92.1	108	104			3.76
	Aldicarb	51.4	55.4	41.0			29.8
	Aldicarb Sulfone	76.9	85.8	88.3			2.92
	Aldicarb Sulfoxide	70.7	37.0	35.1			5.47
	AMPA	96.6	108	116			6.95
	Bentazon	69.7					12.0
	Benzovindiflupyr	93.1	103	105			2.00
	Carbamazepine	92.6	70.2	92.9			27.8
	Carbaryl	59.3	55.6	53.3			4.17
	Carbofuran	62.2	45.6	53.3			15.6
	Clothianidin	94.2	117	104			11.6
	Dinotefuran	98.4	123	127			3.15
	Diuron	79.0	80.2	81.4			1.39
	Endothall	92.6	100	100			0.169
	Fenuron	99.2	94.0	97.9			4.07
	Fluridone	90.1					1.88
	Glufosinate	92.9	88.9	105			16.6
	Glyphosate	118	110	114			3.81
	Hydrocodone	106	97.0	91.9			5.37
	Ibuprofen	69.7	73.1	75.9			3.88
	Imazapyr	97.6					15.9
	Imidacloprid	104	183	167			7.44
	Linuron	56.6	71.5	72.9			1.93
	Mandestrobin	91.5	90.3	95.6			5.76
	MCPP	144	149	165			10.0
	Methiocarb	55.3	49.3	53.1			7.30
	Methomyl	71.1	54.8	65.7			18.2
	Naproxen	43.0	99.8	98.7			1.10
	Oxamyl	68.4	61.6	56.0			9.48
	Primidone	92.8	101	101			0.124
	Propoxur	54.0	36.7	41.9			13.2
	Pyraclostrobin	90.6	92.7	97.4			4.94
	Sucralose	95.2	85.6	84.1			1.71
	Thiamethoxam	89.5	152	152			0.145
	Tolfenpyrad	52.8	55.9	58.4			4.30
	Triclopyr	89.6	101	121			17.7
SM 2120 B-2011	Color (true)	101				2.12	
	Color (true)	100				1.95	
SM 2320 B-2011	Total Alkalinity	104				0.0199	
SM 2540 C-2011	TDS					5.24	
SM 4500 F-C-2011	Fluoride	101	102	102			0.0
SM 5310 B-2011	Organic Carbon	100	98.3	100			0.963

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2145333, 2145336
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2145367, 2145368

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2145367, 2145368
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2145333, 2145336
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2145333, 2145336
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2145334, 2145337
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2145334, 2145337
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2145334, 2145337
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2145334, 2145337
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2145335, 2145338
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2145358
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2145359
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2145358
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2145352
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2145353, 2145354
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2145353, 2145354
SM 2120 B-2011 / E31780	True Color measured at 450 nm	2145333, 2145336
SM 2320 B-2011 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2145333, 2145336
SM 2540 C-2011 / E31780	Total Dissolved Solids in aqueous matrices	2145333, 2145336
SM 2540 D-2011 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2145333, 2145336
SM 4500 F-C-2011 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2145333, 2145336
SM 5310 B-2011 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2145334, 2145337

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	12/19/2019			12/19/2019 14:53	Yen Ta	2145333, 2145336
EPA 200.7 Rev. 4.4	12/19/2019	01/02/2020 13:10	Elliott D. Healy	01/06/2020 12:16	Betina Topolski	2145367
	12/19/2019	01/02/2020 13:10	Elliott D. Healy	01/06/2020 12:24	Betina Topolski	2145368
EPA 200.8 Rev. 5.4	12/19/2019	01/02/2020 13:10	Elliott D. Healy	01/09/2020 03:08	Alexander Thompson	2145367
	12/19/2019	01/02/2020 13:10	Elliott D. Healy	01/09/2020 04:16	Alexander Thompson	2145368
	12/19/2019	01/02/2020 13:10	Elliott D. Healy	01/09/2020 22:20	Alexander Thompson	2145367
	12/19/2019	01/02/2020 13:10	Elliott D. Healy	01/09/2020 23:28	Alexander Thompson	2145368
EPA 300.0 Rev. 2.1	12/19/2019			12/31/2019 03:37	Irina Carbone	2145333
	12/19/2019			12/31/2019 03:49	Irina Carbone	2145336
EPA 350.1 Rev. 2.0	12/19/2019			12/26/2019 15:39	Ping Hua	2145334
	12/19/2019			12/26/2019 15:40	Ping Hua	2145337
EPA 351.2 Rev. 2.0	12/19/2019	01/02/2020 13:10	Sima Feizi	01/03/2020 15:35	Virginia P. Brown	2145334
	12/19/2019	01/02/2020 13:10	Sima Feizi	01/03/2020 15:36	Virginia P. Brown	2145337
EPA 353.2 Rev. 2.0	12/19/2019			12/27/2019 10:22	Beverly Y. Sanders	2145334
	12/19/2019			12/27/2019 10:23	Beverly Y. Sanders	2145337
EPA 365.1 Rev. 2.0	12/19/2019	12/20/2019 13:10	Yen Ta	12/23/2019 12:58	Benjamin T. Nordmann	2145334
	12/19/2019	12/20/2019 13:10	Yen Ta	12/23/2019 13:02	Benjamin T. Nordmann	2145337
EPA 365.1 Rev. 2.0 dissolved	12/19/2019			12/19/2019 15:29	Samantha Davila	2145335
	12/19/2019			12/19/2019 16:21	Samantha Davila	2145338
EPA 8270E	12/19/2019	12/23/2019 08:00	Fe-Val Siddell	12/26/2019 22:52	Vandana T. Nagar	2145359
	12/19/2019	12/23/2019 09:00	Rasheda Ghaffari	12/30/2019 20:12	Arthur Maknenko	2145358
EPA 8276	12/19/2019	12/23/2019 09:00	Rasheda Ghaffari	12/29/2019 01:42	Michael Poppell	2145358
EPA 8321B	12/19/2019	12/19/2019 16:00	Rebecca Ware	12/19/2019 19:29	Rebecca Ware	2145353
	12/19/2019	12/19/2019 16:00	Rebecca Ware	12/19/2019 19:43	Rebecca Ware	2145354
	12/19/2019	12/19/2019 16:00	Rebecca Ware	12/20/2019 17:39	Rebecca Ware	2145353
	12/19/2019	12/19/2019 16:00	Rebecca Ware	12/20/2019 17:49	Rebecca Ware	2145354
	12/19/2019	12/19/2019 16:00	Rebecca Ware	12/24/2019 06:47	Mohammad Ghaffari	2145353
	12/19/2019	12/19/2019 16:00	Rebecca Ware	12/24/2019 07:01	Mohammad Ghaffari	2145354
	12/19/2019	12/22/2019 09:00	Hoor Shaik	12/25/2019 16:00	Juyoung Kim	2145353
	12/19/2019	12/22/2019 09:00	Hoor Shaik	12/25/2019 16:34	Juyoung Kim	2145354
	12/19/2019	12/23/2019 10:00	Hoor Shaik	12/28/2019 03:43	Juyoung Kim	2145352
SM 2120 B-2011	12/19/2019			12/19/2019 17:14	Madeline Funaro	2145333
	12/19/2019			12/19/2019 17:18	Madeline Funaro	2145336
SM 2320 B-2011	12/19/2019			12/24/2019 20:39	Dale L. Simmons	2145333
	12/19/2019			12/24/2019 20:50	Dale L. Simmons	2145336
SM 2540 C-2011	12/19/2019			12/23/2019 16:45	Yijie Li	2145333, 2145336
SM 2540 D-2011	12/19/2019			12/23/2019 16:45	Yijie Li	2145333, 2145336
SM 4500 F-C-2011	12/19/2019			12/24/2019 20:39	Dale L. Simmons	2145333
	12/19/2019			12/24/2019 20:50	Dale L. Simmons	2145336
SM 5310 B-2011	12/19/2019			12/26/2019 16:47	Madeline Funaro	2145334

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	12/19/2019			12/26/2019 17:40	Madeline Funaro	2145337