

Chemical Analysis Report

WAS-SECT-2021-09-13-01

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

Event Description: **Merrit's Mill Pond BMAP**
Request ID: **RQ-2021-09-13-06**
Customer: **WAS-SECT**
Project ID: **BMAP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 07-OCT-2021 10:30



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: Merritt's Mill Pond 500 meters upstream of dam Collection Date/Time: 09/13/2021 11:11

Field ID: G2WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275583	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P403710	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P403798	
		Sulfate	1.7		mg SO4/L	P403803	
		Color (true)	2.5	U	PCU	P403713	
	SM 2320 B-2011	Total Alkalinity	125		mg CaCO3/L	P403815	
	SM 2540 C-2011	TDS	151		mg/L	P404173	
	SM 2540 D-2011	TSS	2	U	mg/L	P404001	
	SM 4500 F-C-2011	Fluoride	0.040	I	mg F/L	P403816	
2275586	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P403887	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P403827	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.1		mg N/L	P403756	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P403772	
	SM 5310 B-2011	Organic Carbon	0.51	I	mg C/L	P404047	
2275589	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P403706	
2275603	EPA 200.7 Rev. 4.4	Barium	6.1		ug/L	P403690	
		Calcium	53.0		mg/L	P403690	
		Iron	30	U	ug/L	P403690	
		Magnesium	3.18		mg/L	P403690	
		Potassium	0.41	I	mg/L	P403690	
		Sodium	2.3		mg/L	P403690	
		Strontium	45.6		ug/L	P403690	
		Tin	3.0	U	ug/L	P403690	
	EPA 200.8 Rev. 5.4	Titanium	0.79	I	ug/L	P403690	
		Vanadium	2.0	U	ug/L	P403690	
		Zinc	8.4	I	ug/L	P403690	
		Aluminum	5.9	I	ug/L	P403690	
		Antimony	0.050	U	ug/L	P403690	
		Arsenic	0.27		ug/L	P403690	
		Beryllium	0.010	U	ug/L	P403690	
		Boron**	10		ug/L	P403690	
		Cadmium	0.020	U	ug/L	P403690	
		Chromium	1.0	I	ug/L	P403690	
		Cobalt	0.020	U	ug/L	P403690	
		Copper	0.40	U	ug/L	P403690	
		Lead	0.20	U	ug/L	P403690	
		Manganese	1.51		ug/L	P403690	
		Molybdenum	0.15	U	ug/L	P403690	
		Nickel	0.50	U	ug/L	P403690	
		Selenium	0.21	I	ug/L	P403690	
		Silver	0.010	U	ug/L	P403690	
		Thallium	0.10	U	ug/L	P403690	
	SM 2340B	Hardness	145		mg/L	P403690	

Ref. Method and Comment:

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

Sample Location: Shangri La Spring Vent

Collection Date/Time: 09/13/2021 13:46

Field ID: G2WA0022

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275584	EPA 180.1 Rev. 2.0	Turbidity	0.15		NTU	P403710	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P403798	
		Sulfate	1.8		mg SO4/L	P403803	
		Color (true)	2.5	U	PCU	P403713	
	SM 2320 B-2011	Total Alkalinity	139		mg CaCO3/L	P403815	
	SM 2540 C-2011	TDS	177		mg/L	P404173	
	SM 2540 D-2011	TSS	2	U	mg/L	P404001	
2275587	SM 4500 F-C-2011	Fluoride	0.041	I	mg F/L	P403816	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P403887	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.10	I	mg N/L	P403827	
	EPA 353.2 Rev. 2.0	NO2NO3-N	4.2		mg N/L	P403756	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P403772	
2275590	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P404048	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P403706	
2275604	EPA 200.7 Rev. 4.4	Barium	4.8		ug/L	P403690	
		Calcium	62.2		mg/L	P403690	
		Iron	30	U	ug/L	P403690	
		Magnesium	2.15		mg/L	P403690	
		Potassium	0.44	I	mg/L	P403690	
		Sodium	2.0	I	mg/L	P403690	
		Strontium	48.8		ug/L	P403690	
		Tin	3.0	U	ug/L	P403690	
		Titanium	0.81	I	ug/L	P403690	
		Vanadium	2.0	U	ug/L	P403690	
		Zinc	5.0	U	ug/L	P403690	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P403690	
		Antimony	0.050	U	ug/L	P403690	
		Arsenic	0.22		ug/L	P403690	
		Beryllium	0.010	U	ug/L	P403690	
		Boron**	9.0		ug/L	P403690	
		Cadmium	0.020	U	ug/L	P403690	
		Chromium	1.5	I	ug/L	P403690	
		Cobalt	0.020	U	ug/L	P403690	
		Copper	0.40	U	ug/L	P403690	
		Lead	0.20	U	ug/L	P403690	
		Manganese	0.19	I	ug/L	P403690	
		Molybdenum	0.15	U	ug/L	P403690	
		Nickel	0.50	U	ug/L	P403690	
		Selenium	0.22	I	ug/L	P403690	
		Silver	0.010	U	ug/L	P403690	
		Thallium	0.10	U	ug/L	P403690	
	SM 2340B	Hardness	164		mg/L	P403690	

Ref. Method and Comment:

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

Sample Location: Merritt's Mill Pond 600 meters downstream of Jackson Blue Sp

Collection Date/Time: 09/13/2021 13:59

Field ID: G2WA0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275585	EPA 180.1 Rev. 2.0	Turbidity	0.20		NTU	P403710	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P403798	
		Sulfate	1.7		mg SO4/L	P403803	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P403713	
	SM 2320 B-2011	Total Alkalinity	120		mg CaCO3/L	P403815	
	SM 2540 C-2011	TDS	166	A	mg/L	P404173	
	SM 2540 D-2011	TSS	2	UA	mg/L	P404001	
2275588	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P403816	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P403887	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P403827	
	EPA 353.2 Rev. 2.0	NO2NO3-N	4.0		mg N/L	P403756	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P403773	
2275591	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P404048	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P403706	
2275605	EPA 200.7 Rev. 4.4	Barium	5.8		ug/L	P403690	
		Calcium	54.6		mg/L	P403690	
		Iron	30	U	ug/L	P403690	
		Magnesium	2.65		mg/L	P403690	
		Potassium	0.52	I	mg/L	P403690	
		Sodium	2.2		mg/L	P403690	
		Strontium	41.6		ug/L	P403690	
		Tin	3.0	U	ug/L	P403690	
		Titanium	0.75	U	ug/L	P403690	
		Vanadium	2.0	U	ug/L	P403690	
		Zinc	5.0	U	ug/L	P403690	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P403690	
		Antimony	0.050	U	ug/L	P403690	
		Arsenic	0.24		ug/L	P403690	
		Beryllium	0.012	I	ug/L	P403690	
		Boron**	9.3		ug/L	P403690	
		Cadmium	0.020	U	ug/L	P403690	
		Chromium	1.3	I	ug/L	P403690	
		Cobalt	0.020	U	ug/L	P403690	
		Copper	0.40	U	ug/L	P403690	
		Lead	0.20	U	ug/L	P403690	
		Manganese	0.15	I	ug/L	P403690	
		Molybdenum	0.15	U	ug/L	P403690	
		Nickel	0.50	U	ug/L	P403690	
		Selenium	0.20	U	ug/L	P403690	
		Silver	0.010	U	ug/L	P403690	
		Thallium	0.10	U	ug/L	P403690	
	SM 2340B	Hardness	147		mg/L	P403690	

Field ID: G2WA0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Merritt's Mill Pond mid under powerlines

Collection Date/Time: 09/13/2021 12:36

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275592	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P403710	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P403798	
		Sulfate	1.7		mg SO4/L	P403803	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P403713	
	SM 2320 B-2011	Total Alkalinity	126	A	mg CaCO3/L	P403815	
	SM 2540 C-2011	TDS	159		mg/L	P404173	
	SM 2540 D-2011	TSS	2	I	mg/L	P404001	
	SM 4500 F-C-2011	Fluoride	0.042	I	mg F/L	P403816	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P403887	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P403929	MS
2275593	EPA 353.2 Rev. 2.0	NO2NO3-N	3.2		mg N/L	P403756	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P403773	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P404048	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P403706	
	EPA 8321B	Aldicarb	0.020	U	ug/L	P403546	
2275594		Aldicarb Sulfone	0.0020	U	ug/L	P403546	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P403546	
		Carbaryl	0.0020	U	ug/L	P403546	
		Carbofuran	0.0020	U	ug/L	P403546	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P403546	
		Methiocarb	0.0020	U	ug/L	P403546	
		Methomyl	0.0020	U	ug/L	P403546	
		Oxamyl	0.0024	I	ug/L	P403546	
		Propoxur	0.0020	U	ug/L	P403546	
		Acesulfame K	0.10	U	ug/L	P403676	
2275600		2,4-D	0.0020	U	ug/L	P403651	MS
		2,4,5-T	0.0040	U	ug/L	P403651	
		AMPA	0.10	U	ug/L	P403676	
		Acetaminophen	0.0080	U	ug/L	P403651	
		Acetamiprid	0.0020	U	ug/L	P403651	
		Endothall	0.25	U	ug/L	P403676	
		Glufosinate	0.10	U	ug/L	P403676	
		Glyphosate	0.10	U	ug/L	P403676	
		Afidopyropen	0.0020	U	ug/L	P403651	
		Bentazon	0.0038		ug/L	P403651	
		Sucralose	0.016	I	ug/L	P403676	
		Benzovindiflupyr	0.0020	U	ug/L	P403651	
		Carbamazepine	8.0E-04	U	ug/L	P403651	
		Clothianidin	0.0020	U	ug/L	P403651	
		Dinotefuran	0.0035	I	ug/L	P403651	
		Diuron	0.0020	U	ug/L	P403651	
		Fenuron	0.016	U	ug/L	P403651	
		Fluridone	8.0E-04	U	ug/L	P403651	

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275600	EPA 8321B	Imazapyr	0.0040	U	ug/L	P403651	
		Hydrocodone	0.0020	U	ug/L	P403651	
		Ibuprofen	0.020	U	ug/L	P403651	
		Imidacloprid	0.0026	I	ug/L	P403651	
		Linuron	0.0040	U	ug/L	P403651	
		Mandestrobin	0.0020	U	ug/L	P403651	
		MCP	0.0020	U	ug/L	P403651	MS
		Naproxen	0.0080	U	ug/L	P403651	MS
		Primidone	0.0040	U	ug/L	P403651	
		Pyraclostrobin	0.0020	U	ug/L	P403651	
		Thiamethoxam	0.0020	U	ug/L	P403651	
		Tolfenpyrad	0.0020	U	ug/L	P403651	
		Triclopyr	0.0040	U	ug/L	P403651	MS
2275601	EPA 8270E	Aldrin	0.68	U	ng/L	P403675	
		Alpha-BHC	0.10	U	ng/L	P403675	
		Alpha-Chlordane	0.21	U	ng/L	P403675	
		Beta-BHC	0.10	U	ng/L	P403675	
		Beta-Cyfluthrin**	1.3	U	ng/L	P403675	
		Bifenthrin**	0.52	U	ng/L	P403675	
		Chlorothalonil	0.52	U	ng/L	P403675	
		Cis-Nonachlor**	0.21	UJ	ng/L	P403675	CCV
		Cypermethrin	1.6	U	ng/L	P403675	
		Dacthal**	0.16	U	ng/L	P403675	
		DDD-p,p'	0.26	U	ng/L	P403675	
		DDE-p,p'	0.21	U	ng/L	P403675	
		DDT-p,p'	0.26	U	ng/L	P403675	
		Delta-BHC	0.42	U	ng/L	P403675	
		Deltamethrin**	1.3	U	ng/L	P403675	
		Dichlobenil**	0.10	U	ng/L	P403675	
		Dicofol	1.3	U	ng/L	P403675	
		Dieldrin	0.42	U	ng/L	P403675	
		Endosulfan I	0.42	U	ng/L	P403675	
		Endosulfan II	0.42	U	ng/L	P403675	
		Endosulfan Sulfate	0.31	U	ng/L	P403675	
		Endrin	0.42	U	ng/L	P403675	
		Endrin Aldehyde	0.78	U	ng/L	P403675	
		Endrin Ketone	0.42	U	ng/L	P403675	
		Esfenvalerate**	0.78	U	ng/L	P403675	
		Ethalfuralin**	0.16	U	ng/L	P403675	
		Fenpropathrin**	0.26	U	ng/L	P403675	
		Gamma-BHC	0.13	U	ng/L	P403675	
		Gamma-Chlordane	0.21	U	ng/L	P403675	
		Heptachlor	0.21	U	ng/L	P403675	
		Heptachlor Epoxide	0.26	U	ng/L	P403675	
		Hexachlorobenzene	1.0	U	ng/L	P403675	

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275601	EPA 8270E	Kepone**	5.2	UJ	ng/L	P403675	CCV, RPD
		Lambda-Cyhalothrin**	0.78	U	ng/L	P403675	
		Methoprene**	0.78	U	ng/L	P403675	
		Methoxychlor	0.31	U	ng/L	P403675	
		MGK-264**	0.21	U	ng/L	P403675	
		Mirex	0.73	U	ng/L	P403675	
		Oxychlordane**	0.31	U	ng/L	P403675	
		Permethrin	1.7	U	ng/L	P403675	
		Phenothrin**	0.94	U	ng/L	P403675	
		Piperonyl Butoxide**	0.16	U	ng/L	P403675	
		Prallethrin**	2.1	U	ng/L	P403675	
		Tau-Fluvalinate**	0.26	U	ng/L	P403675	
		Tetramethrin**	0.78	U	ng/L	P403675	
		Trans-Nonachlor**	0.21	U	ng/L	P403675	
		Triclosan Methyl**	0.16	U	ng/L	P403675	
		Trifluralin	0.21	U	ng/L	P403675	
		Chlordane	5.2	U	ng/L	P403675	
		Toxaphene	31	U	ng/L	P403675	
2275602	EPA 8270E	Acetochlor	0.24	U	ng/L	P403558	RPD
		Alachlor	0.29	I	ng/L	P403558	
		Ametryn	0.58	U	ng/L	P403558	
		Atrazine	1.6		ng/L	P403558	
		Atrazine Desethyl	1.5	U	ng/L	P403558	
		Azinphos Methyl	1.9	U	ng/L	P403558	
		Azoxystrobin**	0.49	U	ng/L	P403558	
		Bromacil	0.49	U	ng/L	P403558	
		Butylate	0.39	U	ng/L	P403558	
		Caffeine**	88	J	ng/L	P403558	
		Carbophenothion	0.49	U	ng/L	P403558	
		Carfentrazone Ethyl**	0.097	U	ng/L	P403558	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P403558	
		Chlorpyrifos Methyl	0.049	U	ng/L	P403558	
		Cyanazine	3.2	U	ng/L	P403558	
		Demeton	1.5	U	ng/L	P403558	
		Diazinon	0.12	U	ng/L	P403558	
		Difenoconazole**	0.58	U	ng/L	P403558	
		Dimethenamid**	0.097	U	ng/L	P403558	
		Disulfoton	0.49	UJ	ng/L	P403558	
		Dithiopyr**	0.17	U	ng/L	P403558	
		EPTC	1.2	U	ng/L	P403558	
		Ethion	0.15	U	ng/L	P403558	
		Ethoprop	0.097	U	ng/L	P403558	
		Fenamiphos	0.49	U	ng/L	P403558	
		Fenbuconazole**	0.12	U	ng/L	P403558	
		Fipronil	0.24	U	ng/L	P403558	

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275602	EPA 8270E	Fipronil Desulfinyl**	0.12	UJ	ng/L	P403558	LCS
		Fipronil Sulfide	0.15	U	ng/L	P403558	
		Fipronil Sulfone	0.15	U	ng/L	P403558	
		Fluazifop-P-butyl**	0.097	U	ng/L	P403558	
		Fludioxonil**	0.12	U	ng/L	P403558	
		Flumioxazin**	1.7	U	ng/L	P403558	
		Flutolanil**	1.1		ng/L	P403558	
		Fluxapyroxad**	0.36	I	ng/L	P403558	
		Fonofos	0.19	U	ng/L	P403558	
		Hexazinone	3.0		ng/L	P403558	
		Imazalil**	0.73	U	ng/L	P403558	
		Iprodione**	0.58	U	ng/L	P403558	
		Malathion	0.34	U	ng/L	P403558	
		Metalaxyl	0.73	U	ng/L	P403558	
		Metolachlor	9.1		ng/L	P403558	
		Metribuzin	3.2	U	ng/L	P403558	
		Mevinphos	1.0	U	ng/L	P403558	
		Molinate	0.29	U	ng/L	P403558	
		Myclobutanil**	0.24	U	ng/L	P403558	
		Naled**	1.5	U	ng/L	P403558	
		Norflurazon	0.73	I	ng/L	P403558	
		Oxadiazon	0.29	U	ng/L	P403558	
		Oxyfluorfen**	0.15	U	ng/L	P403558	
		Parathion Ethyl	0.24	U	ng/L	P403558	
		Parathion Methyl	0.54	U	ng/L	P403558	
		Pendimethalin	0.97	U	ng/L	P403558	
		Phorate	0.51	U	ng/L	P403558	
		Prodiamine**	0.17	U	ng/L	P403558	
		Prometon	0.88	U	ng/L	P403558	
		Prometryn	0.19	U	ng/L	P403558	
		Pronamide**	0.15	U	ng/L	P403558	
		Propiconazole**	0.49	U	ng/L	P403558	
		Pyriproxyfen**	0.12	U	ng/L	P403558	
		Simazine	0.49	U	ng/L	P403558	
		Sulfentrazone**	0.49	U	ng/L	P403558	
		Tebuconazole**	0.49	U	ng/L	P403558	
		Terbufos	0.097	U	ng/L	P403558	
		Terbuthylazine	0.41	U	ng/L	P403558	
2275606	EPA 200.7 Rev. 4.4	Barium	6.1		ug/L	P403690	
		Calcium	54.1		mg/L	P403690	
		Iron	30	U	ug/L	P403690	
		Magnesium	3.12		mg/L	P403690	
		Potassium	0.45	I	mg/L	P403690	
		Sodium	2.2		mg/L	P403690	
		Strontium	45.6		ug/L	P403690	

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2275606	EPA 200.7 Rev. 4.4	Tin	3.0	U	ug/L	P403690	
		Titanium	0.84	I	ug/L	P403690	
		Vanadium	2.0	U	ug/L	P403690	
		Zinc	5.0	U	ug/L	P403690	
	EPA 200.8 Rev. 5.4	Aluminum	6.7	I	ug/L	P403690	
		Antimony	0.050	U	ug/L	P403690	
		Arsenic	0.26		ug/L	P403690	
		Beryllium	0.010	U	ug/L	P403690	
		Boron**	10.0		ug/L	P403690	
		Cadmium	0.020	U	ug/L	P403690	
		Chromium	1.1	I	ug/L	P403690	
		Cobalt	0.020	U	ug/L	P403690	
		Copper	0.40	U	ug/L	P403690	
		Lead	0.20	U	ug/L	P403690	
		Manganese	1.67		ug/L	P403690	
		Molybdenum	0.15	U	ug/L	P403690	
		Nickel	0.50	U	ug/L	P403690	
		Selenium	0.20	U	ug/L	P403690	
		Silver	0.010	U	ug/L	P403690	
		Thallium	0.10	U	ug/L	P403690	
	SM 2340B	Hardness	148		mg/L	P403690	
2275659	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P403684	
		Cylindrospermopsin	0.10	U	ug/L	P403684	
		Desmethyl microcystin LR	0.25	U	ug/L	P403684	
		Microcystin HilR**	0.25	U	ug/L	P403684	
		Microcystin HtyR**	0.25	U	ug/L	P403684	
		Microcystin LA	0.10	U	ug/L	P403684	
		Microcystin LF	0.10	U	ug/L	P403684	
		Microcystin LR	0.25	U	ug/L	P403684	
		Microcystin LW	0.25	U	ug/L	P403684	
		Microcystin LY	0.10	U	ug/L	P403684	
		Microcystin RR	0.10	U	ug/L	P403684	
		Microcystin WR	0.50	U	ug/L	P403684	
		Microcystin YR	0.25	U	ug/L	P403684	
		Nodularin-R**	0.10	U	ug/L	P403684	

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: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

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

EPA 8270E: MS accuracy for caffeine not assessed due to high content of this parameter 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: P403710

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P403690

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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P403690

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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: P403798

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403803

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403887

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403827

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403929

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403756

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403772

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403773

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403706

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

Reference Method: EPA 8270E
Batch ID: P403558

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403558

Component	Result	Code	Units
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403558

Component	Result	Code	Units
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.30	U	ng/L
Prodiamine	0.30	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403558

Component	Result	Code	Units
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P403675

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403675

Component	Result	Code	Units
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403675

Component	Result	Code	Units
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P403675

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

Reference Method: EPA 8321B

Batch ID: P403546

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: P403651

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P403651

Component	Result	Code	Units
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P403676

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: P403684

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin HIR	0.25	U	ug/L
Microcystin HtyR	0.25	U	ug/L
Microcystin LA	0.10	U	ug/L
Microcystin LF	0.10	U	ug/L
Microcystin LR	0.25	U	ug/L
Microcystin LW	0.25	U	ug/L
Microcystin LY	0.10	U	ug/L
Microcystin RR	0.10	U	ug/L
Microcystin WR	0.50	U	ug/L
Microcystin YR	0.25	U	ug/L
Nodularin-R	0.10	U	ug/L

Reference Method: SM 2120 B-2011

Batch ID: P403713

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P403815

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

Reference Method: SM 2540 C-2011
Batch ID: P404173

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P404001

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P403816

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P404047

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P404048

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: P403690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	104		P	85 - 115
Calcium	103		P	85 - 115
Iron	108		P	85 - 115
Magnesium	110		P	85 - 115
Potassium	104		P	85 - 115
Sodium	106		P	85 - 115
Strontium	101		P	85 - 115
Tin	105		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P403690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	104		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	100		P	85 - 115
Beryllium	98.9		P	85 - 115
Boron	107		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	98.9		P	85 - 115
Copper	100		P	85 - 115
Lead	102		P	85 - 115
Manganese	102		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	100		P	85 - 115
Selenium	101		P	85 - 115
Silver	103		P	85 - 115
Thallium	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403798

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P403887

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.4		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403827

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403772

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403773

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403706

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

Reference Method: EPA 8270E
Batch ID: P403558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	104	110	P/P	70 - 121
Alachlor	103	113	P/P	70 - 119
Ametryn	114	120	P/P	61 - 135
Atrazine	94.2	99.0	P/P	76 - 123
Atrazine Desethyl	87.3	84.9	P/P	35 - 140
Azinphos Methyl	117	121	P/P	57 - 163
Azoxystrobin	96.1	99.0	P/P	43 - 231
Bromacil	98.6	110	P/P	42 - 123
Butylate	37.7	45.2	P/P	34 - 92.0
Caffeine	77.7	79.9	P/P	70 - 130
Carbophenothion	99.8	105	P/P	61 - 121
Carfentrazone Ethyl	125	133	P/P	62 - 139
Chlorpyrifos Ethyl	89.1	104	P/P	67 - 121
Chlorpyrifos Methyl	86.9	95.7	P/P	67 - 120
Cyanazine	167	171	P/P	20 - 226
Demeton	82.0	85.0	P/P	35 - 125

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P403558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diazinon	119	108	P/P	70 - 122
Difenoconazole	73.1	78.0	P/P	56 - 186
Dimethenamid	90.4	91.9	P/P	67 - 119
Disulfoton	80.9	61.9	P/P	47 - 120
Dithiopyr	105	110	P/P	67 - 118
EPTC	34.6	46.7	P/P	33 - 90.0
Ethion	88.6	93.6	P/P	40 - 133
Ethoprop	74.0	75.6	P/P	61 - 121
Fenamiphos	101	100	P/P	31 - 139
Fenbuconazole	117	111	P/P	66 - 141
Fipronil	121	121	P/P	62 - 129
Fipronil Desulfinyl	124	132	P/F	59 - 126
Fipronil Sulfide	101	104	P/P	63 - 117
Fipronil Sulfone	93.5	93.6	P/P	57 - 117
Fluazifop-P-butyl	116	109	P/P	63 - 124
Fludioxonil	118	114	P/P	63 - 123
Flumioxazin	180	157	P/P	34 - 245
Flutolanil	117	119	P/P	56 - 131
Fluxapyroxad	112	105	P/P	57 - 117
Fonofos	77.5	84.2	P/P	61 - 116
Hexazinone	94.1	98.9	P/P	55 - 138
Imazalil	104	99.7	P/P	33 - 143
Iprodione	112	111	P/P	59 - 118
Malathion	88.5	92.1	P/P	62 - 138
Metalaxyl	104	116	P/P	24 - 147
Metolachlor	110	116	P/P	68 - 118
Metribuzin	109	104	P/P	20 - 239
Mevinphos	60.5	65.5	P/P	46 - 124
Molinate	47.9	56.7	P/P	46 - 100
Myclobutanil	113	113	P/P	32 - 149
Naled	33.1	37.3	P/P	32 - 95.0
Norflurazon	115	120	P/P	57 - 127
Oxadiazon	103	109	P/P	63 - 118
Oxyfluorfen	126	110	P/P	69 - 137
Parathion Ethyl	91.2	95.7	P/P	70 - 113
Parathion Methyl	97.4	96.0	P/P	71 - 130
Pendimethalin	116	107	P/P	55 - 118
Phorate	64.7	64.3	P/P	46 - 125
Prodiamine	99.3	102	P/P	20 - 141
Prometon	103	100	P/P	54 - 122
Prometryn	118	118	P/P	66 - 124
Pronamide	103	102	P/P	79 - 122
Propiconazole	117	123	P/P	61 - 126
Pyriproxyfen	102	103	P/P	52 - 131
Simazine	90.9	98.5	P/P	75 - 128
Sulfentrazone	110	101	P/P	20 - 132
Tebuconazole	95.1	97.8	P/P	20 - 116
Terbufos	93.4	96.2	P/P	61 - 117
Terbuthylazine	92.5	93.8	P/P	74 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P403675

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	56.7	70.7	P/P	20 - 83.0
Alpha-BHC	91.1	94.8	P/P	74 - 108
Alpha-Chlordane	79.5	94.2	P/P	53 - 109
Beta-BHC	109	130	P/P	64 - 139
Beta-Cyfluthrin	105	117	P/P	27 - 171
Bifenthrin	75.2	88.8	P/P	20 - 124
Chlorothalonil	124	119	P/P	20 - 182
Cis-Nonachlor	58.9	76.9	P/P	46 - 110
Cypermethrin	89.6	103	P/P	35 - 160
Dacthal	98.2	98.7	P/P	70 - 115
DDD-p,p'	65.4	80.5	P/P	51 - 108
DDE-p,p'	86.7	96.8	P/P	51 - 104
DDT-p,p'	87.1	95.8	P/P	52 - 107
Delta-BHC	109	127	P/P	73 - 146
Deltamethrin	97.6	113	P/P	20 - 190
Dichlobenil	82.9	86.7	P/P	30 - 100
Dicofol	79.5	85.0	P/P	52 - 110
Dieldrin	85.3	93.8	P/P	57 - 111
Endosulfan I	86.3	94.7	P/P	61 - 106
Endosulfan II	66.1	73.9	P/P	57 - 122
Endosulfan Sulfate	77.8	85.6	P/P	58 - 122
Endrin	67.1	74.6	P/P	34 - 125
Endrin Aldehyde	70.3	91.8	P/P	40 - 120
Endrin Ketone	84.1	91.3	P/P	51 - 138
Esfenvalerate	94.7	104	P/P	20 - 193
Ethalfuralin	75.6	83.9	P/P	51 - 99.0
Fenpropathrin	109	99.4	P/P	40 - 116
Gamma-BHC	109	115	P/P	74 - 116
Gamma-Chlordane	78.6	88.2	P/P	49 - 105
Heptachlor	68.5	79.8	P/P	45 - 98.0
Heptachlor Epoxide	78.9	88.5	P/P	61 - 106
Hexachlorobenzene	76.8	85.5	P/P	41 - 96.0
Kepone	45.8	49.8	P/P	27 - 179
Lambda-Cyhalothrin	96.3	108	P/P	20 - 199
Methoprene	81.8	94.2	P/P	50 - 150
Methoxychlor	96.0	99.3	P/P	61 - 111
MGK-264	88.4	96.2	P/P	20 - 124
Mirex	58.2	71.9	P/P	20 - 199
Oxychlordane	70.6	79.1	P/P	50 - 150
Permethrin	92.1	100	P/P	31 - 155
Phenothrin	61.8	82.4	P/P	20 - 100
Piperonyl Butoxide	91.4	96.8	P/P	20 - 144
Prallethrin	79.0	92.2	P/P	20 - 103
Tau-Fluvalinate	81.7	94.5	P/P	24 - 133
Tetramethrin	88.0	103	P/P	20 - 116
Trans-Nonachlor	78.4	91.5	P/P	49 - 105
Triclosan Methyl	91.2	99.5	P/P	60 - 111
Trifluralin	78.4	85.7	P/P	53 - 97.0

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P403675

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	96.9	96.7	P/P	56 - 117
Toxaphene	110	85.6	P/P	45 - 116

Reference Method: EPA 8321B

Batch ID: P403546

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	82.6		P	40 - 150
Aldicarb	73.6		P	30 - 150
Aldicarb Sulfone	85.9		P	40 - 150
Aldicarb Sulfoxide	103		P	40 - 150
Carbaryl	85.0		P	40 - 150
Carbofuran	86.1		P	40 - 150
Methiocarb	91.2		P	40 - 150
Methomyl	88.8		P	40 - 150
Oxamyl	94.4		P	40 - 150
Propoxur	93.6		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P403651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	102		P	40 - 150
2,4,5-T	94.4		P	40 - 150
Acetaminophen	88.6		P	30 - 150
Acetamiprid	86.9		P	40 - 150
Afidopyropen	72.0		P	40 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	76.2		P	40 - 150
Carbamazepine	92.0		P	40 - 150
Clothianidin	95.9		P	40 - 150
Dinotefuran	78.4		P	40 - 150
Diuron	92.9		P	40 - 150
Fenuron	87.0		P	40 - 150
Fluridone	90.4		P	40 - 150
Hydrocodone	86.6		P	40 - 150
Ibuprofen	72.3		P	40 - 150
Imazapyr	81.7		P	40 - 150
Imidacloprid	85.7		P	40 - 150
Linuron	80.4		P	40 - 150
Mandestrobin	85.0		P	40 - 150
MCPP	116		P	40 - 150
Naproxen	78.8		P	40 - 150
Primidone	90.0		P	40 - 150
Pyraclostrobin	76.3		P	40 - 150
Thiamethoxam	83.4		P	40 - 150
Tolfenpyrad	44.1		P	30 - 150
Triclopyr	96.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P403676

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	92.8		P	40 - 150
AMPA	95.3		P	40 - 160
Endothall	85.4		P	40 - 150
Glufosinate	95.0		P	40 - 160
Glyphosate	89.3		P	40 - 160
Sucralose	86.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P403684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	79.2		P	40 - 150
Cylindrospermopsin	100		P	40 - 150
Desmethyl microcystin LR	87.3		P	40 - 150
Microcystin H1LR	92.3		P	40 - 150
Microcystin HtyR	95.9		P	40 - 150
Microcystin LA	129		P	40 - 150
Microcystin LF	125		P	40 - 150
Microcystin LR	87.6		P	40 - 150
Microcystin LW	109		P	40 - 150
Microcystin LY	123		P	40 - 150
Microcystin RR	107		P	40 - 150
Microcystin WR	88.3		P	40 - 150
Microcystin YR	84.2		P	40 - 150
Nodularin-R	111		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P403713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.6		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P403815

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P403816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P404047

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P404048

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P403690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275604	Barium	101	101	P/P	80 - 120
2275604	Calcium	101		P	80 - 120
2275604	Iron	107	106	P/P	80 - 120
2275604	Magnesium	108	105	P/P	80 - 120
2275604	Potassium	104	104	P/P	80 - 120
2275604	Sodium	105	103	P/P	80 - 120
2275604	Strontium	98.6	97.8	P/P	80 - 120
2275604	Tin	103	103	P/P	80 - 120
2275604	Titanium	102	101	P/P	80 - 120
2275604	Vanadium	104	103	P/P	80 - 120
2275604	Zinc	105	104	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P403690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275604	Aluminum	100	99.3	P/P	80 - 120
2275604	Antimony	106	105	P/P	80 - 120
2275604	Arsenic	99.1	97.8	P/P	80 - 120
2275604	Beryllium	99.4	95.9	P/P	80 - 120
2275604	Boron	103	104	P/P	80 - 120
2275604	Cadmium	106	105	P/P	80 - 120
2275604	Chromium	104	103	P/P	80 - 120
2275604	Cobalt	96.4	95.6	P/P	80 - 120
2275604	Copper	95.2	94.7	P/P	80 - 120
2275604	Lead	99.8	102	P/P	80 - 120
2275604	Manganese	103	102	P/P	80 - 120
2275604	Molybdenum	105	103	P/P	80 - 120
2275604	Nickel	97.9	94.9	P/P	80 - 120
2275604	Selenium	99.4	98.5	P/P	80 - 120
2275604	Silver	103	101	P/P	80 - 120
2275604	Thallium	104	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403798

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275508	Chloride	98.6		P	90 - 110
2275583	Chloride	97.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275508	Sulfate	98.6		P	90 - 110
2275583	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P403887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275587	Ammonia-N	98.6	99.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275586	Kjeldahl Nitrogen	97.4	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275678	Kjeldahl Nitrogen	92.1	89.0	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275678	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275541	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2274643	Total-P	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275589	O-Phosphate-P	98.0	98.9	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P403558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275602	Acetochlor	97.3	108	P/P	66 - 122
2275602	Alachlor	93.0	102	P/P	65 - 122
2275602	Ametryn	97.3	102	P/P	45 - 173
2275602	Atrazine	86.2	101	P/P	70 - 134
2275602	Atrazine Desethyl	61.9	73.4	P/P	25 - 150
2275602	Azinphos Methyl	104	120	P/P	44 - 174
2275602	Azoxystrobin	107	118	P/P	10 - 268
2275602	Bromacil	77.6	78.7	P/P	31 - 145
2275602	Butylate	36.5	42.7	P/P	15 - 97.0
2275602	Carbophenothion	90.4	99.0	P/P	42 - 129
2275602	Carfentrazone Ethyl	94.2	104	P/P	62 - 145
2275602	Chlorpyrifos Ethyl	84.0	94.7	P/P	60 - 124
2275602	Chlorpyrifos Methyl	84.5	94.1	P/P	66 - 119
2275602	Cyanazine	96.3	100	P/P	17 - 225
2275602	Demeton	77.6	94.3	P/P	36 - 142
2275602	Diazinon	97.3	111	P/P	70 - 128

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P403558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275602	Difenoconazole	140	151	P/P	33 - 222
2275602	Dimethenamid	79.6	84.2	P/P	54 - 125
2275602	Disulfoton	59.9	86.6	P/P	49 - 133
2275602	Dithiopyr	89.5	98.7	P/P	55 - 123
2275602	EPTC	39.0	38.7	P/P	19 - 91.0
2275602	Ethion	81.7	72.8	P/P	13 - 143
2275602	Ethoprop	74.7	91.2	P/P	49 - 144
2275602	Fenamiphos	80.7	88.0	P/P	32 - 136
2275602	Fenbuconazole	93.3	99.8	P/P	73 - 148
2275602	Fipronil	92.5	98.4	P/P	57 - 129
2275602	Fipronil Desulfinyl	98.7	105	P/P	49 - 127
2275602	Fipronil Sulfide	63.9	71.5	P/P	44 - 127
2275602	Fipronil Sulfone	68.1	71.0	P/P	35 - 126
2275602	Fluazifop-P-butyl	94.2	103	P/P	67 - 129
2275602	Fludioxonil	91.5	105	P/P	61 - 126
2275602	Flumioxazin	158	181	P/P	38 - 279
2275602	Flutolanil	87.2	93.5	P/P	55 - 136
2275602	Fluxapyroxad	82.6	97.0	P/P	33 - 140
2275602	Fonofos	75.7	83.6	P/P	58 - 125
2275602	Hexazinone	89.2	109	P/P	57 - 148
2275602	Imazalil	69.8	78.8	P/P	10 - 221
2275602	Iprodione	89.5	100	P/P	32 - 140
2275602	Malathion	91.2	105	P/P	52 - 138
2275602	Metalaxyl	89.5	94.8	P/P	46 - 134
2275602	Metolachlor	93.6	99.4	P/P	58 - 122
2275602	Metribuzin	91.8	106	P/P	16 - 272
2275602	Mevinphos	62.5	80.2	P/P	45 - 140
2275602	Molinate	50.0	60.2	P/P	41 - 103
2275602	Myclobutanil	88.0	94.3	P/P	60 - 134
2275602	Naled	32.9	36.0	P/P	20 - 113
2275602	Norflurazon	83.6	99.0	P/P	51 - 123
2275602	Oxadiazon	83.7	90.0	P/P	44 - 125
2275602	Oxyfluorfen	101	108	P/P	66 - 176
2275602	Parathion Ethyl	83.2	96.0	P/P	57 - 132
2275602	Parathion Methyl	91.3	108	P/P	59 - 156
2275602	Pendimethalin	101	115	P/P	59 - 129
2275602	Phorate	69.7	82.9	P/P	47 - 136
2275602	Prodiamine	68.0	58.2	P/P	10 - 159
2275602	Prometon	86.3	93.2	P/P	59 - 127
2275602	Prometryn	87.8	97.4	P/P	59 - 129
2275602	Pronamide	89.8	104	P/P	65 - 145
2275602	Propiconazole	89.1	96.3	P/P	28 - 165
2275602	Pyriproxyfen	85.8	92.4	P/P	21 - 180
2275602	Simazine	91.2	102	P/P	63 - 147
2275602	Sulfentrazone	82.3	96.1	P/P	32 - 136
2275602	Tebuconazole	65.8	71.2	P/P	10 - 117
2275602	Terbufos	95.4	116	P/P	61 - 131
2275602	Terbutylazine	89.9	101	P/P	62 - 126

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P403675

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2276224	Aldrin	52.3	51.6	P/P	10 - 94.0
2276224	Alpha-BHC	98.3	86.9	P/P	71 - 108
2276224	Alpha-Chlordane	76.1	73.2	P/P	42 - 115
2276224	Beta-BHC	142	112	P/P	56 - 161
2276224	Beta-Cyfluthrin	73.0	76.1	P/P	46 - 190
2276224	Bifenthrin	51.4	57.6	P/P	19 - 126
2276224	Chlorothalonil	134	106	P/P	10 - 262
2276224	Cis-Nonachlor	66.4	61.8	P/P	44 - 112
2276224	Cypermethrin	63.0	67.9	P/P	40 - 178
2276224	Dacthal	105	90.8	P/P	60 - 119
2276224	DDD-p,p'	57.0	70.3	P/P	40 - 114
2276224	DDE-p,p'	81.2	75.0	P/P	22 - 125
2276224	DDT-p,p'	75.8	71.9	P/P	39 - 110
2276224	Delta-BHC	153	123	P/P	64 - 174
2276224	Deltamethrin	56.8	66.5	P/P	10 - 227
2276224	Dichlobenil	94.0	83.4	P/P	20 - 99.0
2276224	Dicofol	77.9	74.0	P/P	43 - 115
2276224	Dieldrin	85.4	77.5	P/P	31 - 131
2276224	Endosulfan I	84.0	80.0	P/P	52 - 110
2276224	Endosulfan II	68.2	64.0	P/P	53 - 127
2276224	Endosulfan Sulfate	79.5	74.2	P/P	44 - 135
2276224	Endrin	66.2	60.9	P/P	36 - 122
2276224	Endrin Aldehyde	63.0	53.8	P/P	23 - 115
2276224	Endrin Ketone	89.8	79.4	P/P	46 - 147
2276224	Esfenvalerate	60.4	64.1	P/P	25 - 217
2276224	Ethalfuralin	75.3	71.4	P/P	46 - 99.0
2276224	Fenpropathrin	75.5	67.1	P/P	42 - 121
2276224	Gamma-BHC	105	94.0	P/P	63 - 131
2276224	Gamma-Chlordane	72.8	68.9	P/P	40 - 108
2276224	Heptachlor	63.1	61.9	P/P	38 - 98.0
2276224	Heptachlor Epoxide	79.3	74.1	P/P	39 - 124
2276224	Hexachlorobenzene	73.1	67.3	P/P	37 - 96.0
2276224	Kepone	32.9	23.2	P/P	10 - 216
2276224	Lambda-Cyhalothrin	62.9	67.0	P/P	21 - 220
2276224	Methoprene	60.0	63.9	P/P	50 - 170
2276224	Methoxychlor	91.4	79.3	P/P	56 - 118
2276224	MGK-264	99.0	84.3	P/P	28 - 125
2276224	Mirex	46.0	48.9	P/P	10 - 203
2276224	Oxychlordane	74.2	64.4	P/P	50 - 170
2276224	Permethrin	66.2	65.8	P/P	42 - 173
2276224	Phenothrin	47.6	56.6	P/P	10 - 140
2276224	Piperonyl Butoxide	89.7	80.4	P/P	10 - 158
2276224	Prallethrin	91.0	73.9	P/P	19 - 119
2276224	Tau-Fluvalinate	58.5	63.5	P/P	27 - 164
2276224	Tetramethrin	88.1	73.4	P/P	16 - 130
2276224	Trans-Nonachlor	75.8	71.3	P/P	43 - 105
2276224	Triclosan Methyl	89.7	80.0	P/P	50 - 113
2276224	Trifluralin	76.2	71.6	P/P	48 - 98.0

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8276

Batch ID: P403675

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2276091	Chlordane	100	96.0	P/P	47 - 128
2276091	Toxaphene	90.8	99.9	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P403546

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275599	3-Hydroxycarbofuran	93.3	91.4	P/P	40 - 150
2275599	Aldicarb	88.1	90.7	P/P	30 - 150
2275599	Aldicarb Sulfone	96.8	86.8	P/P	40 - 150
2275599	Aldicarb Sulfoxide	56.0	53.2	P/P	40 - 150
2275599	Carbaryl	89.8	88.6	P/P	40 - 150
2275599	Carbofuran	96.5	90.5	P/P	40 - 150
2275599	Methiocarb	97.6	99.4	P/P	40 - 150
2275599	Methomyl	97.5	90.1	P/P	40 - 150
2275599	Oxamyl	106	97.1	P/P	40 - 150
2275599	Propoxur	96.0	88.5	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P403651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2274827	2,4-D	153	139	F/P	40 - 150
2274827	2,4,5-T	143	123	P/P	40 - 150
2274827	Acetaminophen	53.8	55.6	P/P	30 - 150
2274827	Acetamiprid	93.8	95.8	P/P	40 - 150
2274827	Afidopyropen	106	93.0	P/P	40 - 150
2274827	Benzovindiflupyr	91.6	92.5	P/P	40 - 150
2274827	Carbamazepine	89.3	92.5	P/P	40 - 150
2274827	Clothianidin	53.4	55.2	P/P	40 - 150
2274827	Dinotefuran	98.7	98.8	P/P	40 - 150
2274827	Diuron	92.7	99.6	P/P	40 - 150
2274827	Fenuron	97.8	93.3	P/P	40 - 150
2274827	Fluridone	110	101	P/P	40 - 150
2274827	Hydrocodone	130	119	P/P	40 - 150
2274827	Ibuprofen	127	125	P/P	40 - 150
2274827	Imazapyr	128	110	P/P	40 - 150
2274827	Imidacloprid	97.3	108	P/P	40 - 150
2274827	Linuron	81.9	77.8	P/P	40 - 150
2274827	Mandestrobin	96.2	103	P/P	40 - 150
2274827	MCP	183	170	F/F	40 - 150
2274827	Naproxen	151	142	F/P	40 - 150
2274827	Primidone	50.5	66.4	P/P	40 - 150
2274827	Pyraclostrobin	85.4	88.1	P/P	40 - 150
2274827	Thiamethoxam	105	105	P/P	40 - 150
2274827	Tolfenpyrad	53.9	56.9	P/P	30 - 150
2274827	Triclopyr	157	138	F/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P403676

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

Reference Method: EPA 8321B
Batch ID: P403676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275530	Acesulfame K	96.1	91.3	P/P	40 - 150
2275530	AMPA	99.1	99.3	P/P	40 - 160
2275530	Endothall	91.1	91.6	P/P	40 - 150
2275530	Glufosinate	93.6	93.3	P/P	40 - 160
2275530	Glyphosate	87.4	85.4	P/P	40 - 160
2275530	Sucralose	92.9	92.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P403684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275638	Anatoxin-a	87.9	88.7	P/P	40 - 150
2275638	Cylindrospermopsin	101	102	P/P	40 - 150
2275638	Desmethyl microcystin LR	86.1	84.7	P/P	40 - 150
2275638	Microcystin HtR	99.9	103	P/P	40 - 150
2275638	Microcystin HtyR	99.5	101	P/P	40 - 150
2275638	Microcystin LA	126	124	P/P	40 - 150
2275638	Microcystin LF	134	139	P/P	40 - 150
2275638	Microcystin LR	97.4	93.9	P/P	40 - 150
2275638	Microcystin LW	117	121	P/P	40 - 150
2275638	Microcystin LY	123	122	P/P	40 - 150
2275638	Microcystin RR	107	110	P/P	40 - 150
2275638	Microcystin WR	94.5	87.5	P/P	40 - 150
2275638	Microcystin YR	85.7	90.9	P/P	40 - 150
2275638	Nodularin-R	109	113	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P403816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275592	Fluoride	98.6	97.5	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P404047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275548	Organic Carbon	103		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P404048

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275817	Organic Carbon	98.8	99.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P403710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275649	Turbidity	4.12	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P403690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275604	Barium	0.825	Spike	P	0 - 20
2275604	Calcium	0.678	Spike	P	0 - 20
2275604	Iron	1.51	Spike	P	0 - 20
2275604	Magnesium	1.37	Spike	P	0 - 20
2275604	Potassium	0.196	Spike	P	0 - 20
2275604	Sodium	1.38	Spike	P	0 - 20
2275604	Strontium	0.774	Spike	P	0 - 20
2275604	Tin	0.444	Spike	P	0 - 20
2275604	Titanium	0.394	Spike	P	0 - 20
2275604	Vanadium	0.650	Spike	P	0 - 20
2275604	Zinc	1.41	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P403690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275604	Aluminum	0.983	Spike	P	0 - 20
2275604	Antimony	1.39	Spike	P	0 - 20
2275604	Arsenic	1.31	Spike	P	0 - 20
2275604	Beryllium	3.65	Spike	P	0 - 20
2275604	Boron	0.703	Spike	P	0 - 20
2275604	Cadmium	0.538	Spike	P	0 - 20
2275604	Chromium	1.06	Spike	P	0 - 20
2275604	Cobalt	0.776	Spike	P	0 - 20
2275604	Copper	0.595	Spike	P	0 - 20
2275604	Lead	2.30	Spike	P	0 - 20
2275604	Manganese	0.943	Spike	P	0 - 20
2275604	Molybdenum	2.30	Spike	P	0 - 20
2275604	Nickel	3.12	Spike	P	0 - 20
2275604	Selenium	0.961	Spike	P	0 - 20
2275604	Silver	1.99	Spike	P	0 - 20
2275604	Thallium	0.747	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275508	Chloride	0.478	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275508	Sulfate	4.12	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P403887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275587	Ammonia-N	0.808	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275586	Kjeldahl Nitrogen	1.91	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275678	Kjeldahl Nitrogen	1.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275678	NO2NO3-N	0.324	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275541	Total-P	0.455	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2274643	Total-P	1.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275589	O-Phosphate-P	0.914	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275602	Acetochlor	10.1	Spike	P	0 - 30
2275602	Alachlor	8.79	Spike	P	0 - 30
2275602	Ametryn	4.38	Spike	P	0 - 30
2275602	Atrazine	10.9	Spike	P	0 - 30
2275602	Atrazine Desethyl	17.0	Spike	P	0 - 30
2275602	Azinphos Methyl	14.8	Spike	P	0 - 30
2275602	Azoxystrobin	9.64	Spike	P	0 - 30
2275602	Bromacil	1.40	Spike	P	0 - 30
2275602	Butylate	15.8	Spike	P	0 - 30
2275602	Caffeine	112	Spike	F	0 - 30
2275602	Carbophenothion	9.13	Spike	P	0 - 30
2275602	Carfentrazone Ethyl	9.43	Spike	P	0 - 30
2275602	Chlorpyrifos Ethyl	12.0	Spike	P	0 - 30
2275602	Chlorpyrifos Methyl	10.8	Spike	P	0 - 30
2275602	Cyanazine	3.83	Spike	P	0 - 30
2275602	Demeton	19.4	Spike	P	0 - 30
2275602	Diazinon	13.5	Spike	P	0 - 30
2275602	Difenoconazole	7.42	Spike	P	0 - 30
2275602	Dimethenamid	5.66	Spike	P	0 - 30
2275602	Disulfoton	36.4	Spike	F	0 - 30
2275602	Dithiopyr	9.71	Spike	P	0 - 30
2275602	EPTC	0.841	Spike	P	0 - 30
2275602	Ethion	11.5	Spike	P	0 - 30
2275602	Ethoprop	19.9	Spike	P	0 - 30
2275602	Fenamiphos	8.72	Spike	P	0 - 30
2275602	Fenbuconazole	6.76	Spike	P	0 - 30
2275602	Fipronil	6.15	Spike	P	0 - 30
2275602	Fipronil Desulfinyl	5.93	Spike	P	0 - 30
2275602	Fipronil Sulfide	11.3	Spike	P	0 - 30
2275602	Fipronil Sulfone	4.18	Spike	P	0 - 30
2275602	Fluazifop-P-butyl	8.89	Spike	P	0 - 30
2275602	Fludioxonil	13.4	Spike	P	0 - 30
2275602	Flumioxazin	14.0	Spike	P	0 - 30
2275602	Flutolanil	5.40	Spike	P	0 - 30
2275602	Fluxapyroxad	14.5	Spike	P	0 - 30
2275602	Fonofos	9.88	Spike	P	0 - 30
2275602	Hexazinone	16.1	Spike	P	0 - 30
2275602	Imazalil	12.1	Spike	P	0 - 30
2275602	Iprodione	11.5	Spike	P	0 - 30
2275602	Malathion	14.3	Spike	P	0 - 30
2275602	Metalaxyl	5.69	Spike	P	0 - 30
2275602	Metolachlor	3.29	Spike	P	0 - 30
2275602	Metribuzin	14.8	Spike	P	0 - 30
2275602	Mevinphos	24.7	Spike	P	0 - 30
2275602	Molinate	18.5	Spike	P	0 - 30
2275602	Myclobutanil	6.84	Spike	P	0 - 30
2275602	Naled	8.98	Spike	P	0 - 30
2275602	Norflurazon	15.8	Spike	P	0 - 30
2275602	Oxadiazon	7.30	Spike	P	0 - 30
2275602	Oxyfluorfen	6.68	Spike	P	0 - 30
2275602	Parathion Ethyl	14.3	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275602	Parathion Methyl	16.7	Spike	P	0 - 30
2275602	Pendimethalin	12.1	Spike	P	0 - 30
2275602	Phorate	17.3	Spike	P	0 - 30
2275602	Prodiamine	15.6	Spike	P	0 - 30
2275602	Prometon	7.65	Spike	P	0 - 30
2275602	Prometryn	10.3	Spike	P	0 - 30
2275602	Pronamide	14.7	Spike	P	0 - 30
2275602	Propiconazole	7.81	Spike	P	0 - 30
2275602	Pyriproxyfen	7.46	Spike	P	0 - 30
2275602	Simazine	11.4	Spike	P	0 - 30
2275602	Sulfentrazone	15.5	Spike	P	0 - 30
2275602	Tebuconazole	7.97	Spike	P	0 - 30
2275602	Terbufos	19.1	Spike	P	0 - 30
2275602	Terbuthylazine	11.7	Spike	P	0 - 30
LFB	Acetochlor	5.64	LCS	P	0 - 30
LFB	Alachlor	9.09	LCS	P	0 - 30
LFB	Ametryn	5.04	LCS	P	0 - 30
LFB	Atrazine	4.98	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.75	LCS	P	0 - 30
LFB	Azinphos Methyl	3.44	LCS	P	0 - 30
LFB	Azoxystrobin	2.93	LCS	P	0 - 30
LFB	Bromacil	11.0	LCS	P	0 - 30
LFB	Butylate	18.1	LCS	P	0 - 30
LFB	Caffeine	2.75	LCS	P	0 - 30
LFB	Carbophenothion	4.87	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	6.13	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.7	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.66	LCS	P	0 - 30
LFB	Cyanazine	2.21	LCS	P	0 - 30
LFB	Demeton	3.64	LCS	P	0 - 30
LFB	Diazinon	9.86	LCS	P	0 - 30
LFB	Difenoconazole	6.49	LCS	P	0 - 30
LFB	Dimethenamid	1.66	LCS	P	0 - 30
LFB	Disulfoton	26.6	LCS	P	0 - 30
LFB	Dithiopyr	4.69	LCS	P	0 - 30
LFB	EPTC	29.5	LCS	P	0 - 30
LFB	Ethion	5.46	LCS	P	0 - 30
LFB	Ethoprop	2.17	LCS	P	0 - 30
LFB	Fenamiphos	0.453	LCS	P	0 - 30
LFB	Fenbuconazole	5.68	LCS	P	0 - 30
LFB	Fipronil	0.110	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	5.77	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.05	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.151	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	6.78	LCS	P	0 - 30
LFB	Fludioxonil	3.55	LCS	P	0 - 30
LFB	Flumioxazin	13.9	LCS	P	0 - 30
LFB	Flutolanil	0.880	LCS	P	0 - 30
LFB	Fluxapyroxad	7.04	LCS	P	0 - 30
LFB	Fonofos	8.24	LCS	P	0 - 30
LFB	Hexazinone	5.03	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Imazalil	4.28	LCS	P	0 - 30
LFB	Iprodione	1.63	LCS	P	0 - 30
LFB	Malathion	4.07	LCS	P	0 - 30
LFB	Metalaxyl	10.7	LCS	P	0 - 30
LFB	Metolachlor	5.88	LCS	P	0 - 30
LFB	Metribuzin	4.57	LCS	P	0 - 30
LFB	Mevinphos	7.87	LCS	P	0 - 30
LFB	Molinate	16.9	LCS	P	0 - 30
LFB	Myclobutanil	0.0488	LCS	P	0 - 30
LFB	Naled	11.9	LCS	P	0 - 30
LFB	Norflurazon	4.47	LCS	P	0 - 30
LFB	Oxadiazon	5.25	LCS	P	0 - 30
LFB	Oxyfluorfen	13.7	LCS	P	0 - 30
LFB	Parathion Ethyl	4.74	LCS	P	0 - 30
LFB	Parathion Methyl	1.45	LCS	P	0 - 30
LFB	Pendimethalin	7.93	LCS	P	0 - 30
LFB	Phorate	0.620	LCS	P	0 - 30
LFB	Prodiamine	2.51	LCS	P	0 - 30
LFB	Prometon	3.31	LCS	P	0 - 30
LFB	Prometryn	0.0493	LCS	P	0 - 30
LFB	Pronamide	1.48	LCS	P	0 - 30
LFB	Propiconazole	5.30	LCS	P	0 - 30
LFB	Pyriproxyfen	0.938	LCS	P	0 - 30
LFB	Simazine	8.07	LCS	P	0 - 30
LFB	Sulfentrazone	8.79	LCS	P	0 - 30
LFB	Tebuconazole	2.81	LCS	P	0 - 30
LFB	Terbufos	2.97	LCS	P	0 - 30
LFB	Terbutylazine	1.36	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P403675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2276224	Aldrin	1.30	Spike	P	0 - 30
2276224	Alpha-BHC	12.3	Spike	P	0 - 30
2276224	Alpha-Chlordane	3.84	Spike	P	0 - 30
2276224	Beta-BHC	23.5	Spike	P	0 - 30
2276224	Beta-Cyfluthrin	4.17	Spike	P	0 - 30
2276224	Bifenthrin	11.3	Spike	P	0 - 30
2276224	Chlorothalonil	22.9	Spike	P	0 - 50
2276224	Cis-Nonachlor	7.22	Spike	P	0 - 30
2276224	Cypermethrin	7.56	Spike	P	0 - 30
2276224	Dacthal	14.1	Spike	P	0 - 30
2276224	DDD-p,p'	20.8	Spike	P	0 - 30
2276224	DDE-p,p'	7.83	Spike	P	0 - 30
2276224	DDT-p,p'	5.27	Spike	P	0 - 30
2276224	Delta-BHC	21.8	Spike	P	0 - 30
2276224	Deltamethrin	15.9	Spike	P	0 - 30
2276224	Dichlobenil	11.9	Spike	P	0 - 30
2276224	Dicofol	5.20	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2276224	Dieldrin	9.63	Spike	P	0 - 30
2276224	Endosulfan I	4.84	Spike	P	0 - 30
2276224	Endosulfan II	6.36	Spike	P	0 - 30
2276224	Endosulfan Sulfate	6.89	Spike	P	0 - 30
2276224	Endrin	8.32	Spike	P	0 - 30
2276224	Endrin Aldehyde	15.8	Spike	P	0 - 30
2276224	Endrin Ketone	12.3	Spike	P	0 - 30
2276224	Esfenvalerate	5.98	Spike	P	0 - 30
2276224	Ethalfuralin	5.38	Spike	P	0 - 30
2276224	Fenpropathrin	11.8	Spike	P	0 - 30
2276224	Gamma-BHC	10.8	Spike	P	0 - 30
2276224	Gamma-Chlordane	5.51	Spike	P	0 - 30
2276224	Heptachlor	2.00	Spike	P	0 - 30
2276224	Heptachlor Epoxide	6.82	Spike	P	0 - 30
2276224	Hexachlorobenzene	8.28	Spike	P	0 - 30
2276224	Kepone	34.6	Spike	F	0 - 30
2276224	Lambda-Cyhalothrin	6.31	Spike	P	0 - 30
2276224	Methoprene	6.32	Spike	P	0 - 30
2276224	Methoxychlor	14.2	Spike	P	0 - 30
2276224	MGK-264	16.0	Spike	P	0 - 30
2276224	Mirex	6.21	Spike	P	0 - 30
2276224	Oxychlordane	14.1	Spike	P	0 - 30
2276224	Permethrin	0.524	Spike	P	0 - 30
2276224	Phenothrin	17.3	Spike	P	0 - 30
2276224	Piperonyl Butoxide	10.9	Spike	P	0 - 30
2276224	Prallethrin	20.8	Spike	P	0 - 30
2276224	Tau-Fluvalinate	8.22	Spike	P	0 - 30
2276224	Tetramethrin	18.1	Spike	P	0 - 30
2276224	Trans-Nonachlor	6.09	Spike	P	0 - 30
2276224	Triclosan Methyl	11.4	Spike	P	0 - 30
2276224	Trifluralin	6.28	Spike	P	0 - 30
LFB	Aldrin	21.9	LCS	P	0 - 30
LFB	Alpha-BHC	3.96	LCS	P	0 - 30
LFB	Alpha-Chlordane	16.9	LCS	P	0 - 30
LFB	Beta-BHC	17.4	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	10.7	LCS	P	0 - 30
LFB	Bifenthrin	16.6	LCS	P	0 - 30
LFB	Chlorothalonil	4.01	LCS	P	0 - 50
LFB	Cis-Nonachlor	26.6	LCS	P	0 - 30
LFB	Cypermethrin	14.3	LCS	P	0 - 30
LFB	Dacthal	0.460	LCS	P	0 - 30
LFB	DDD-p,p'	20.7	LCS	P	0 - 30
LFB	DDE-p,p'	11.0	LCS	P	0 - 30
LFB	DDT-p,p'	9.47	LCS	P	0 - 30
LFB	Delta-BHC	14.7	LCS	P	0 - 30
LFB	Deltamethrin	14.5	LCS	P	0 - 30
LFB	Dichlobenil	4.56	LCS	P	0 - 30
LFB	Dicofol	6.71	LCS	P	0 - 30
LFB	Dieldrin	9.47	LCS	P	0 - 30
LFB	Endosulfan I	9.32	LCS	P	0 - 30
LFB	Endosulfan II	11.2	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endosulfan Sulfate	9.53	LCS	P	0 - 30
LFB	Endrin	10.6	LCS	P	0 - 30
LFB	Endrin Aldehyde	26.6	LCS	P	0 - 30
LFB	Endrin Ketone	8.20	LCS	P	0 - 30
LFB	Esfenvalerate	9.83	LCS	P	0 - 30
LFB	Ethalfuralin	10.4	LCS	P	0 - 30
LFB	Fenpropathrin	9.52	LCS	P	0 - 30
LFB	Gamma-BHC	4.64	LCS	P	0 - 30
LFB	Gamma-Chlordane	11.6	LCS	P	0 - 30
LFB	Heptachlor	15.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.4	LCS	P	0 - 30
LFB	Hexachlorobenzene	10.7	LCS	P	0 - 30
LFB	Kepone	8.40	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	11.5	LCS	P	0 - 30
LFB	Methoprene	14.0	LCS	P	0 - 30
LFB	Methoxychlor	3.42	LCS	P	0 - 30
LFB	MGK-264	8.46	LCS	P	0 - 30
LFB	Mirex	21.1	LCS	P	0 - 30
LFB	Oxychlordane	11.3	LCS	P	0 - 30
LFB	Permethrin	8.63	LCS	P	0 - 30
LFB	Phenothrin	28.6	LCS	P	0 - 30
LFB	Piperonyl Butoxide	5.73	LCS	P	0 - 30
LFB	Prallethrin	15.4	LCS	P	0 - 30
LFB	Tau-Fluvalinate	14.6	LCS	P	0 - 30
LFB	Tetramethrin	16.1	LCS	P	0 - 30
LFB	Trans-Nonachlor	15.4	LCS	P	0 - 30
LFB	Triclosan Methyl	8.68	LCS	P	0 - 30
LFB	Trifluralin	8.91	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P403675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2276091	Chlordane	4.08	Spike	P	0 - 30
2276091	Toxaphene	9.54	Spike	P	0 - 30
LFB	Chlordane	0.165	LCS	P	0 - 30
LFB	Toxaphene	24.9	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P403546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275599	3-Hydroxycarbofuran	1.98	Spike	P	0 - 30
2275599	Aldicarb	2.91	Spike	P	0 - 30
2275599	Aldicarb Sulfone	10.9	Spike	P	0 - 30
2275599	Aldicarb Sulfoxide	5.17	Spike	P	0 - 30
2275599	Carbaryl	1.40	Spike	P	0 - 30
2275599	Carbofuran	6.46	Spike	P	0 - 30
2275599	Methiocarb	1.87	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P403546

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275599	Methomyl	7.90	Spike	P	0 - 30
2275599	Oxamyl	8.48	Spike	P	0 - 30
2275599	Propoxur	8.04	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P403651

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2274827	2,4-D	8.88	Spike	P	0 - 30
2274827	2,4,5-T	15.3	Spike	P	0 - 30
2274827	Acetaminophen	3.16	Spike	P	0 - 30
2274827	Acetamiprid	2.15	Spike	P	0 - 30
2274827	Afidopyropen	12.6	Spike	P	0 - 30
2274827	Bentazon	6.63	Spike	P	0 - 30
2274827	Benzovindiflupyr	0.981	Spike	P	0 - 30
2274827	Carbamazepine	3.47	Spike	P	0 - 30
2274827	Clothianidin	3.02	Spike	P	0 - 30
2274827	Dinotefuran	0.114	Spike	P	0 - 30
2274827	Diuron	6.69	Spike	P	0 - 30
2274827	Fenuron	4.65	Spike	P	0 - 30
2274827	Fluridone	5.09	Spike	P	0 - 30
2274827	Hydrocodone	8.95	Spike	P	0 - 30
2274827	Ibuprofen	1.84	Spike	P	0 - 30
2274827	Imazapyr	9.34	Spike	P	0 - 30
2274827	Imidacloprid	9.08	Spike	P	0 - 30
2274827	Linuron	5.19	Spike	P	0 - 30
2274827	Mandestrobin	7.19	Spike	P	0 - 30
2274827	MCP	7.17	Spike	P	0 - 30
2274827	Naproxen	6.14	Spike	P	0 - 30
2274827	Primidone	27.1	Spike	P	0 - 30
2274827	Pyraclostrobin	3.16	Spike	P	0 - 30
2274827	Thiamethoxam	0.294	Spike	P	0 - 30
2274827	Tolfenpyrad	5.44	Spike	P	0 - 30
2274827	Triclopyr	13.0	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P403676

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275530	Acesulfame K	5.07	Spike	P	0 - 30
2275530	AMPA	0.211	Spike	P	0 - 30
2275530	Endothall	0.561	Spike	P	0 - 30
2275530	Glufosinate	0.339	Spike	P	0 - 30
2275530	Glyphosate	2.16	Spike	P	0 - 30
2275530	Sucralose	0.689	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P403684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275638	Anatoxin-a	0.911	Spike	P	0 - 30
2275638	Cylindrospermopsin	0.866	Spike	P	0 - 30
2275638	Desmethyl microcystin LR	1.58	Spike	P	0 - 30
2275638	Microcystin HilR	3.19	Spike	P	0 - 30
2275638	Microcystin HtyR	1.90	Spike	P	0 - 30
2275638	Microcystin LA	1.28	Spike	P	0 - 30
2275638	Microcystin LF	3.72	Spike	P	0 - 30
2275638	Microcystin LR	3.02	Spike	P	0 - 30
2275638	Microcystin LW	3.62	Spike	P	0 - 30
2275638	Microcystin LY	0.897	Spike	P	0 - 30
2275638	Microcystin RR	3.13	Spike	P	0 - 30
2275638	Microcystin WR	5.83	Spike	P	0 - 30
2275638	Microcystin YR	5.85	Spike	P	0 - 30
2275638	Nodularin-R	3.19	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P403713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275660	Color (true)	2.20	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P403815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275592	Total Alkalinity	1.38	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P404173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275585	TDS	1.80	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011

Batch ID: P403816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275592	Fluoride	0.967	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011

Batch ID: P404047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275548	Organic Carbon	0.264	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P404048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275817	Organic Carbon	0.208	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2275599

Field Sample ID: G2WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	80.1	P	30 - 160

Lab Sample ID: 2275600

Field Sample ID: G2WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.1	P	30 - 160
EPA 8321B	2,4-D-d3	91.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.9	P	30 - 160
EPA 8321B	Carbaryl-d7	70.7	P	30 - 160
EPA 8321B	Carbaryl-d7	70.7	P	30 - 160
EPA 8321B	Diuron-d6	59.8	P	30 - 160
EPA 8321B	Diuron-d6	59.8	P	30 - 160
EPA 8321B	Endothall-d6	80.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.6	P	30 - 160
EPA 8321B	Primidone-d5	51.8	P	30 - 160
EPA 8321B	Primidone-d5	51.8	P	30 - 160
EPA 8321B	Sucralose-d6	91.5	P	30 - 160

Lab Sample ID: 2275601

Field Sample ID: G2WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	58.2	P	29 - 123
EPA 8270E	Tetrachloro-m-xylene	58.7	P	24 - 97.0
EPA 8276	Decachlorobiphenyl	50.5	P	29 - 92.0
EPA 8276	PCNB	66.0	P	43 - 134

Lab Sample ID: 2275602

Field Sample ID: G2WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	80.8	P	20 - 200
EPA 8270E	Simazine-d10	108	P	73 - 135
EPA 8270E	Terbufos-d10	99.9	P	58 - 130

Lab Sample ID: 2275659

Field Sample ID: G2WA0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	100	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	78.2	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107781

Included Lab Sample IDs: 2275589, 2275590, 2275591, 2275594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.1	P/P	90 - 110
O-Phosphate-P	99.1	99.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107782

Included Lab Sample IDs: 2275583, 2275584, 2275585, 2275592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	102	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A107783

Included Lab Sample IDs: 2275583, 2275584, 2275585, 2275592

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

Reference Method: EPA 8321B

Run ID: A107784

Included Lab Sample IDs: 2275659

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	85.4	85.2	P/P	50 - 160
Cylindrospermopsin	101	108	P/P	50 - 160
Desmethyl microcystin LR	89.2	82.7	P/P	50 - 160
Microcystin HilR	101	99.9	P/P	50 - 160
Microcystin HtyR	100	101	P/P	50 - 160
Microcystin LA	137	134	P/P	50 - 160
Microcystin LF	128	125	P/P	50 - 160
Microcystin LR	101	101	P/P	50 - 160
Microcystin LW	115	108	P/P	50 - 160
Microcystin LY	127	127	P/P	50 - 160
Microcystin RR	108	113	P/P	50 - 160
Microcystin WR	93.1	90.7	P/P	50 - 160
Microcystin YR	92.9	89.7	P/P	50 - 160
Nodularin-R	112	112	P/P	50 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A107789

Included Lab Sample IDs: 2275583, 2275584, 2275585, 2275592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	99.7	100	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	99.7	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A107792

Included Lab Sample IDs: 2275600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	131	113	P/P	50 - 150
2,4,5-T	107	111	P/P	50 - 150
3-Hydroxycarbofuran	100	104	P/P	60 - 150
Acetaminophen	101	100	P/P	60 - 160
Acetamiprid	98.6	94.3	P/P	50 - 150
Afidopyropen	102	106	P/P	50 - 150
Aldicarb	111	111	P/P	60 - 150
Aldicarb Sulfone	97.8	93.4	P/P	50 - 150
Aldicarb Sulfoxide	98.0	104	P/P	50 - 150
Bentazon	127	125	P/P	50 - 160
Benzovindiflupyr	105	105	P/P	50 - 150
Carbamazepine	107	103	P/P	60 - 150
Carbaryl	104	105	P/P	60 - 150
Carbofuran	104	115	P/P	50 - 150
Clothianidin	85.0	81.3	P/P	60 - 150
Dinotefuran	93.3	87.7	P/P	50 - 150
Diuron	106	99.3	P/P	60 - 160
Fenuron	104	100	P/P	60 - 150
Fluridone	112	104	P/P	60 - 160
Hydrocodone	96.0	94.4	P/P	60 - 150
Ibuprofen	145	132	P/P	50 - 160
Imazapyr	84.3	96.9	P/P	50 - 150
Imidacloprid	94.3	85.7	P/P	60 - 150
Linuron	107	109	P/P	60 - 150
Mandestrobin	105	104	P/P	50 - 150
MCPP	126	109	P/P	50 - 150
Methiocarb	114	117	P/P	50 - 150
Methomyl	102	97.6	P/P	50 - 150
Naproxen	125	92.8	P/P	50 - 160
Oxamyl	104	101	P/P	50 - 150
Primidone	88.6	83.0	P/P	60 - 150
Propoxur	111	110	P/P	50 - 150
Pyraclostrobin	111	109	P/P	60 - 150
Thiamethoxam	80.0	74.6	P/P	50 - 150
Tolfenpyrad	108	116	P/P	60 - 150
Triclopyr	109	117	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107801

Included Lab Sample IDs: 2275586, 2275587, 2275588, 2275593

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	105	P/P	90 - 110
NO2NO3-N	105	104	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A107822

Included Lab Sample IDs: 2275583, 2275584, 2275585, 2275592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A107822

Included Lab Sample IDs: 2275583, 2275584, 2275585, 2275592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.1	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A107822

Included Lab Sample IDs: 2275583, 2275584, 2275585, 2275592

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107836

Included Lab Sample IDs: 2275586, 2275587, 2275588, 2275593

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107838

Included Lab Sample IDs: 2275603, 2275604, 2275605, 2275606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Aluminum	101	102	P/P	90 - 110
Antimony	101	102	P/P	90 - 110
Antimony	98.6	101	P/P	90 - 110
Arsenic	95.2	94.0	P/P	90 - 110
Arsenic	97.1	95.2	P/P	90 - 110
Beryllium	93.3	91.9	P/P	90 - 110
Beryllium	96.1	93.3	P/P	90 - 110
Boron	102	105	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Cadmium	99.2	101	P/P	90 - 110
Chromium	96.7	98.7	P/P	90 - 110
Chromium	98.7	99.4	P/P	90 - 110
Copper	92.5	91.8	P/P	90 - 110
Copper	96.3	92.5	P/P	90 - 110
Lead	96.3	97.2	P/P	90 - 110
Lead	97.2	97.1	P/P	90 - 110
Manganese	97.1	98.3	P/P	90 - 110
Manganese	98.3	99.9	P/P	90 - 110
Molybdenum	98.5	98.2	P/P	90 - 110
Molybdenum	98.8	98.5	P/P	90 - 110
Nickel	92.5	91.1	P/P	90 - 110
Nickel	96.5	92.5	P/P	90 - 110
Selenium	97.1	98.3	P/P	90 - 110
Selenium	97.2	97.1	P/P	90 - 110
Silver	94.9	95.8	P/P	90 - 110
Silver	95.8	96.3	P/P	90 - 110
Thallium	102	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107838

Included Lab Sample IDs: 2275603, 2275604, 2275605, 2275606

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107840

Included Lab Sample IDs: 2275603, 2275604, 2275605, 2275606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	98.5	99.9	P/P	90 - 110
Calcium	104	102	P/P	90 - 110
Iron	105	102	P/P	90 - 110
Magnesium	105	102	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Strontium	98.7	101	P/P	90 - 110
Tin	101	105	P/P	90 - 110
Titanium	99.6	102	P/P	90 - 110
Vanadium	99.4	102	P/P	90 - 110
Zinc	102	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107853

Included Lab Sample IDs: 2275586, 2275587, 2275588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107858

Included Lab Sample IDs: 2275586, 2275587, 2275588, 2275593

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	97.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A107868

Included Lab Sample IDs: 2275600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.9	87.8	P/P	60 - 160
Endothall	77.8	66.7	P/P	60 - 160
Sucralose	88.2	90.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A107869

Included Lab Sample IDs: 2275600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.0	93.4	P/P	60 - 160
Glufosinate	92.0	94.2	P/P	60 - 160
Glyphosate	86.2	82.9	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107872

Included Lab Sample IDs: 2275603, 2275604, 2275605, 2275606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	95.6	95.5	P/P	90 - 110
Cobalt	95.9	95.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107906

Included Lab Sample IDs: 2275593

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.7	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A107923

Included Lab Sample IDs: 2275601

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.9		P	80 - 120
Alpha-BHC	97.5		P	80 - 120
Alpha-Chlordane	99.8		P	80 - 120
Beta-BHC	91.3		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	101		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	79.6*		F	80 - 120
Cypermethrin	98.0		P	80 - 120
Dacthal	98.0		P	80 - 120
DDD-p,p'	87.3		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	93.7		P	80 - 120
Delta-BHC	98.5		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	95.2		P	80 - 120
Dicofol	104		P	80 - 120
Dieldrin	98.7		P	80 - 120
Endosulfan I	96.7		P	80 - 120
Endosulfan II	98.2		P	80 - 120
Endosulfan Sulfate	96.7		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	100		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	101		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	99.5		P	80 - 120
Gamma-BHC	92.8		P	80 - 120
Gamma-Chlordane	99.0		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	97.3		P	80 - 120
Hexachlorobenzene	94.9		P	80 - 120
Kepone	76.5*		F	80 - 120
Lambda-Cyhalothrin	103		P	80 - 120
Methoprene	100		P	80 - 120
Methoxychlor	101		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A107923

Included Lab Sample IDs: 2275601

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MGK-264	98.3		P	80 - 120
Mirex	100		P	80 - 120
Oxychlordane	97.0		P	80 - 120
Permethrin	98.2		P	80 - 120
Phenothrin	99.6		P	80 - 120
Piperonyl Butoxide	99.8		P	80 - 120
Prallethrin	96.4		P	80 - 120
Tau-Fluvalinate	98.4		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	95.7		P	80 - 120
Triclosan Methyl	99.1		P	80 - 120
Trifluralin	94.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A107930

Included Lab Sample IDs: 2275602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.6		P	80 - 120
Alachlor	99.1		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	105		P	80 - 120
Azinphos Methyl	99.8		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	94.8		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	99.6		P	80 - 120
Chlorpyrifos Ethyl	96.6		P	80 - 120
Chlorpyrifos Methyl	97.4		P	80 - 120
Cyanazine	107		P	80 - 120
Demeton	93.7		P	80 - 120
Diazinon	94.3		P	80 - 120
Difenoconazole	98.0		P	80 - 120
Dimethenamid	96.5		P	80 - 120
Disulfoton	95.1		P	80 - 120
Dithiopyr	97.2		P	80 - 120
EPTC	98.9		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	96.6		P	80 - 120
Fenamiphos	108		P	80 - 120
Fenbuconazole	95.7		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	106		P	80 - 120
Fluazifop-P-butyl	99.2		P	80 - 120
Fludioxonil	101		P	80 - 120
Flumioxazin	98.9		P	80 - 120
Flutolanil	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107930
Included Lab Sample IDs: 2275602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluxapyroxad	99.2		P	80 - 120
Fonofos	99.8		P	80 - 120
Hexazinone	108		P	80 - 120
Imazalil	107		P	80 - 120
Iprodione	97.0		P	80 - 120
Malathion	100		P	80 - 120
Metaxyl	102		P	80 - 120
Metolachlor	96.6		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	97.7		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	96.6		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	91.3		P	80 - 120
Parathion Ethyl	98.5		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	110		P	80 - 120
Phorate	97.6		P	80 - 120
Prodiamine	103		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	95.8		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	98.4		P	80 - 120
Simazine	99.8		P	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	94.9		P	80 - 120
Terbufos	93.6		P	80 - 120
Terbutylazine	98.9		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A107931
Included Lab Sample IDs: 2275586, 2275587, 2275588, 2275593

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.0	99.4	P/P	90 - 110
Organic Carbon	99.3	99.0	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A107933
Included Lab Sample IDs: 2275602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Caffeine	106		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						4.12	
EPA 200.7 Rev. 4.4	Barium	104		101	101			0.825
	Calcium	103		101				0.678
	Iron	108		107	106			1.51
	Magnesium	110		108	105			1.37
	Potassium	104		104	104			0.196
	Sodium	106		105	103			1.38
	Strontium	101		98.6	97.8			0.774
	Tin	105		103	103			0.444
	Titanium	102		102	101			0.394
	Vanadium	102		104	103			0.650
	Zinc	104		105	104			1.41
EPA 200.8 Rev. 5.4	Aluminum	104		100	99.3			0.983
	Antimony	104		106	105			1.39
	Arsenic	100		99.1	97.8			1.31
	Beryllium	98.9		99.4	95.9			3.65
	Boron	107		103	104			0.703
	Cadmium	103		106	105			0.538
	Chromium	102		104	103			1.06
	Cobalt	98.9		96.4	95.6			0.776
	Copper	100		95.2	94.7			0.595
	Lead	102		99.8	102			2.30
	Manganese	102		103	102			0.943
	Molybdenum	102		105	103			2.30
	Nickel	100		97.9	94.9			3.12
	Selenium	101		99.4	98.5			0.961
	Silver	103		103	101			1.99
	Thallium	105		104	105			0.747
EPA 300.0 Rev. 2.1	Chloride	98.4		98.6	97.2		0.478	
	Sulfate	98.0		98.6	99.1		4.12	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4		98.6	99.4			0.808
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		97.4	99.5			1.91
	Kjeldahl Nitrogen	97.1		92.1	89.0			1.82
EPA 353.2 Rev. 2.0	NO2NO3-N	104		102	102			0.324
EPA 365.1 Rev. 2.0	Total-P	106		107	107			0.455
	Total-P	106		105	106			1.22
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.5		98.0	98.9			0.914
EPA 8270E	Acetochlor	104	110	97.3	108	5.64		10.1
	Alachlor	103	113	93.0	102	9.09		8.79
	Aldrin	56.7	70.7	52.3	51.6	21.9		1.30
	Alpha-BHC	91.1	94.8	98.3	86.9	3.96		12.3
	Alpha-Chlordane	79.5	94.2	76.1	73.2	16.9		3.84
	Ametryn	114	120	97.3	102	5.04		4.38
	Atrazine	94.2	99.0	86.2	101	4.98		10.9
	Atrazine Desethyl	87.3	84.9	61.9	73.4	2.75		17.0
	Azinphos Methyl	117	121	104	120	3.44		14.8
	Azoxystrobin	96.1	99.0	107	118	2.93		9.64
	Beta-BHC	109	130	142	112	17.4		23.5
	Beta-Cyfluthrin	105	117	73.0	76.1	10.7		4.17
	Bifenthrin	75.2	88.8	51.4	57.6	16.6		11.3
	Bromacil	98.6	110	77.6	78.7	11.0		1.40
	Butylate	37.7	45.2	36.5	42.7	18.1		15.8
	Caffeine	77.7	79.9			2.75		112
	Carbophenothion	99.8	105	90.4	99.0	4.87		9.13

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270E	Carfentrazone Ethyl	125	133	94.2	104	6.13	9.43
	Chlorothalonil	124	119	134	106	4.01	22.9
	Chlorpyrifos Ethyl	89.1	104	84.0	94.7	15.7	12.0
	Chlorpyrifos Methyl	86.9	95.7	84.5	94.1	9.66	10.8
	Cis-Nonachlor	58.9	76.9	66.4	61.8	26.6	7.22
	Cyanazine	167	171	96.3	100	2.21	3.83
	Cypermethrin	89.6	103	63.0	67.9	14.3	7.56
	Dacthal	98.2	98.7	105	90.8	0.460	14.1
	DDD-p,p'	65.4	80.5	57.0	70.3	20.7	20.8
	DDE-p,p'	86.7	96.8	81.2	75.0	11.0	7.83
	DDT-p,p'	87.1	95.8	75.8	71.9	9.47	5.27
	Delta-BHC	109	127	153	123	14.7	21.8
	Deltamethrin	97.6	113	56.8	66.5	14.5	15.9
	Demeton	82.0	85.0	77.6	94.3	3.64	19.4
	Diazinon	119	108	97.3	111	9.86	13.5
	Dichlobenil	82.9	86.7	94.0	83.4	4.56	11.9
	Dicofol	79.5	85.0	77.9	74.0	6.71	5.20
	Dieldrin	85.3	93.8	85.4	77.5	9.47	9.63
	Difenoconazole	73.1	78.0	140	151	6.49	7.42
	Dimethenamid	90.4	91.9	79.6	84.2	1.66	5.66
	Disulfoton	80.9	61.9	59.9	86.6	26.6	36.4
	Dithiopyr	105	110	89.5	98.7	4.69	9.71
	Endosulfan I	86.3	94.7	84.0	80.0	9.32	4.84
	Endosulfan II	66.1	73.9	68.2	64.0	11.2	6.36
	Endosulfan Sulfate	77.8	85.6	79.5	74.2	9.53	6.89
	Endrin	67.1	74.6	66.2	60.9	10.6	8.32
	Endrin Aldehyde	70.3	91.8	63.0	53.8	26.6	15.8
	Endrin Ketone	84.1	91.3	89.8	79.4	8.20	12.3
	EPTC	34.6	46.7	39.0	38.7	29.5	0.841
	Esfenvalerate	94.7	104	60.4	64.1	9.83	5.98
	Ethalfuralin	75.6	83.9	75.3	71.4	10.4	5.38
	Ethion	88.6	93.6	81.7	72.8	5.46	11.5
	Ethoprop	74.0	75.6	74.7	91.2	2.17	19.9
	Fenamiphos	101	100	80.7	88.0	0.453	8.72
	Fenbuconazole	117	111	93.3	99.8	5.68	6.76
	Fenpropathrin	109	99.4	75.5	67.1	9.52	11.8
	Fipronil	121	121	92.5	98.4	0.110	6.15
	Fipronil Desulfinyl	124	132	98.7	105	5.77	5.93
	Fipronil Sulfide	101	104	63.9	71.5	3.05	11.3
	Fipronil Sulfone	93.5	93.6	68.1	71.0	0.151	4.18
	Fluazifop-P-butyl	116	109	94.2	103	6.78	8.89
	Fludioxonil	118	114	91.5	105	3.55	13.4
	Flumioxazin	180	157	158	181	13.9	14.0
	Flutolanil	117	119	87.2	93.5	0.880	5.40
	Fluxapyroxad	112	105	82.6	97.0	7.04	14.5
	Fonofos	77.5	84.2	75.7	83.6	8.24	9.88
	Gamma-BHC	109	115	105	94.0	4.64	10.8
	Gamma-Chlordane	78.6	88.2	72.8	68.9	11.6	5.51
	Heptachlor	68.5	79.8	63.1	61.9	15.2	2.00
	Heptachlor Epoxide	78.9	88.5	79.3	74.1	11.4	6.82
	Hexachlorobenzene	76.8	85.5	73.1	67.3	10.7	8.28
	Hexazinone	94.1	98.9	89.2	109	5.03	16.1
	Imazalil	104	99.7	69.8	78.8	4.28	12.1
	Iprodione	112	111	89.5	100	1.63	11.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Kepone	45.8	49.8	32.9	23.2	8.40	34.6
	Lambda-Cyhalothrin	96.3	108	62.9	67.0	11.5	6.31
	Malathion	88.5	92.1	91.2	105	4.07	14.3
	Metalaxyl	104	116	89.5	94.8	10.7	5.69
	Methoprene	81.8	94.2	60.0	63.9	14.0	6.32
	Methoxychlor	96.0	99.3	91.4	79.3	3.42	14.2
	Metolachlor	110	116	93.6	99.4	5.88	3.29
	Metribuzin	109	104	91.8	106	4.57	14.8
	Mevinphos	60.5	65.5	62.5	80.2	7.87	24.7
	MGK-264	88.4	96.2	99.0	84.3	8.46	16.0
	Mirex	58.2	71.9	46.0	48.9	21.1	6.21
	Molinate	47.9	56.7	50.0	60.2	16.9	18.5
	Myclobutanil	113	113	88.0	94.3	0.0488	6.84
	Naled	33.1	37.3	32.9	36.0	11.9	8.98
	Norflurazon	115	120	83.6	99.0	4.47	15.8
	Oxadiazon	103	109	83.7	90.0	5.25	7.30
	Oxychlordane	70.6	79.1	74.2	64.4	11.3	14.1
	Oxyfluorfen	126	110	101	108	13.7	6.68
	Parathion Ethyl	91.2	95.7	83.2	96.0	4.74	14.3
	Parathion Methyl	97.4	96.0	91.3	108	1.45	16.7
	Pendimethalin	116	107	101	115	7.93	12.1
	Permethrin	92.1	100	66.2	65.8	8.63	0.524
	Phenothrin	61.8	82.4	47.6	56.6	28.6	17.3
	Phorate	64.7	64.3	69.7	82.9	0.620	17.3
	Piperonyl Butoxide	91.4	96.8	89.7	80.4	5.73	10.9
	Prallethrin	79.0	92.2	91.0	73.9	15.4	20.8
	Prodiamine	99.3	102	68.0	58.2	2.51	15.6
	Prometon	103	100	86.3	93.2	3.31	7.65
	Prometryn	118	118	87.8	97.4	0.0493	10.3
	Pronamide	103	102	89.8	104	1.48	14.7
	Propiconazole	117	123	89.1	96.3	5.30	7.81
	Pyriproxyfen	102	103	85.8	92.4	0.938	7.46
	Simazine	90.9	98.5	91.2	102	8.07	11.4
	Sulfentrazone	110	101	82.3	96.1	8.79	15.5
	Tau-Fluvalinate	81.7	94.5	58.5	63.5	14.6	8.22
	Tebuconazole	95.1	97.8	65.8	71.2	2.81	7.97
	Terbufos	93.4	96.2	95.4	116	2.97	19.1
	Terbutylazine	92.5	93.8	89.9	101	1.36	11.7
	Tetramethrin	88.0	103	88.1	73.4	16.1	18.1
	Trans-Nonachlor	78.4	91.5	75.8	71.3	15.4	6.09
	Triclosan Methyl	91.2	99.5	89.7	80.0	8.68	11.4
	Trifluralin	78.4	85.7	76.2	71.6	8.91	6.28
EPA 8276	Chlordane	96.9	96.7	100	96.0	0.165	4.08
	Toxaphene	110	85.6	90.8	99.9	24.9	9.54
EPA 8321B	2,4-D	102		139	153		8.88
	2,4,5-T	94.4		143	123		15.3
	3-Hydroxycarbofuran	82.6		93.3	91.4		1.98
	Acesulfame K	92.8		96.1	91.3		5.07
	Acetaminophen	88.6		55.6	53.8		3.16
	Acetamiprid	86.9		95.8	93.8		2.15
	Afidopyropen	72.0		93.0	106		12.6
	Aldicarb	73.6		90.7	88.1		2.91
	Aldicarb Sulfone	85.9		96.8	86.8		10.9
	Aldicarb Sulfoxide	103		56.0	53.2		5.17

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	AMPA	95.3	99.1	99.3			0.211
	Anatoxin-a	79.2	87.9	88.7			0.911
	Bentazon	137					6.63
	Benzovindiflupyr	76.2	92.5	91.6			0.981
	Carbamazepine	92.0	92.5	89.3			3.47
	Carbaryl	85.0	88.6	89.8			1.40
	Carbofuran	86.1	90.5	96.5			6.46
	Clothianidin	95.9	55.2	53.4			3.02
	Cylindrospermopsin	100	101	102			0.866
	Desmethyl microcystin LR	87.3	86.1	84.7			1.58
	Dinotefuran	78.4	98.8	98.7			0.114
	Diuron	92.9	99.6	92.7			6.69
	Endothall	85.4	91.1	91.6			0.561
	Fenuron	87.0	93.3	97.8			4.65
	Fluridone	90.4	101	110			5.09
	Glufosinate	95.0	93.6	93.3			0.339
	Glyphosate	89.3	87.4	85.4			2.16
	Hydrocodone	86.6	119	130			8.95
	Ibuprofen	72.3	127	125			1.84
	Imazapyr	81.7	110	128			9.34
	Imidacloprid	85.7	108	97.3			9.08
	Linuron	80.4	77.8	81.9			5.19
	Mandestrobin	85.0	103	96.2			7.19
	MCPP	116	183	170			7.17
	Methiocarb	91.2	99.4	97.6			1.87
	Methomyl	88.8	97.5	90.1			7.90
	Microcystin HiLR	92.3	99.9	103			3.19
	Microcystin HtyR	95.9	99.5	101			1.90
	Microcystin LA	129	126	124			1.28
	Microcystin LF	125	134	139			3.72
	Microcystin LR	87.6	97.4	93.9			3.02
	Microcystin LW	109	117	121			3.62
	Microcystin LY	123	123	122			0.897
	Microcystin RR	107	107	110			3.13
	Microcystin WR	88.3	94.5	87.5			5.83
	Microcystin YR	84.2	85.7	90.9			5.85
	Naproxen	78.8	142	151			6.14
	Nodularin-R	111	109	113			3.19
	Oxamyl	94.4	106	97.1			8.48
	Primidone	90.0	66.4	50.5			27.1
	Propoxur	93.6	88.5	96.0			8.04
	Pyraclostrobin	76.3	88.1	85.4			3.16
	Sucralose	86.5	92.9	92.0			0.689
	Thiamethoxam	83.4	105	105			0.294
	Tolfenpyrad	44.1	56.9	53.9			5.44
	Triclopyr	96.5	138	157			13.0
SM 2120 B-2011	Color (true)	99.6				2.20	
SM 2320 B-2011	Total Alkalinity	101				1.38	
SM 2540 C-2011	TDS					1.80	
SM 4500 F-C-2011	Fluoride	99.6	98.6	97.5			0.967
SM 5310 B-2011	Organic Carbon	96.6	103				0.264
	Organic Carbon	97.6	98.8	99.2			0.208

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2275583, 2275584, 2275585, 2275592
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2275603, 2275604, 2275605, 2275606
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2275603, 2275604, 2275605, 2275606
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2275583, 2275584, 2275585, 2275592
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2275583, 2275584, 2275585, 2275592
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2275586, 2275587, 2275588, 2275593
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2275586, 2275587, 2275588, 2275593
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2275586, 2275587, 2275588, 2275593
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2275586, 2275587, 2275588, 2275593
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2275589, 2275590, 2275591, 2275594
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2275601
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2275602
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2275601
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2275599
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2275659
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2275600
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2275583, 2275584, 2275585, 2275592
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2275583, 2275584, 2275585, 2275592
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2275603, 2275604, 2275605, 2275606
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2275583, 2275584, 2275585, 2275592
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2275583, 2275584, 2275585, 2275592
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2275583, 2275584, 2275585, 2275592
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2275586, 2275587, 2275588, 2275593

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	09/13/2021			09/14/2021 16:38	Sarah A Nixon	2275583, 2275584, 2275585, 2275592
EPA 200.7 Rev. 4.4	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 13:58	Josef B Mick	2275603
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 14:06	Josef B Mick	2275604
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 14:38	Josef B Mick	2275605
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 14:45	Josef B Mick	2275606
EPA 200.8 Rev. 5.4	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 17:06	Alexander Thompson	2275604
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 18:24	Alexander Thompson	2275603
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 18:33	Alexander Thompson	2275605
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/16/2021 18:43	Alexander Thompson	2275606
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/17/2021 14:27	Alexander Thompson	2275604
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/17/2021 15:06	Alexander Thompson	2275603
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/17/2021 15:12	Alexander Thompson	2275605
	09/13/2021	09/14/2021 12:45	Elliott D. Healy	09/17/2021 15:19	Alexander Thompson	2275606
EPA 300.0 Rev. 2.1	09/13/2021			09/15/2021 12:50	Roberta Tatti	2275583
	09/13/2021			09/15/2021 15:40	Roberta Tatti	2275584
	09/13/2021			09/15/2021 15:52	Roberta Tatti	2275585
	09/13/2021			09/15/2021 16:04	Roberta Tatti	2275592
EPA 350.1 Rev. 2.0	09/13/2021			09/17/2021 13:33	Ping Hua	2275587
	09/13/2021			09/17/2021 13:38	Ping Hua	2275586
	09/13/2021			09/17/2021 13:40	Ping Hua	2275588
	09/13/2021			09/17/2021 13:41	Ping Hua	2275593
EPA 351.2 Rev. 2.0	09/13/2021	09/16/2021 12:36	Benjamin T. Nordmann	09/17/2021 12:04	Alexandra J Mattheus	2275586
	09/13/2021	09/16/2021 12:36	Benjamin T. Nordmann	09/17/2021 12:09	Alexandra J Mattheus	2275587
	09/13/2021	09/16/2021 12:36	Benjamin T. Nordmann	09/17/2021 12:11	Alexandra J Mattheus	2275588
	09/13/2021	09/20/2021 13:20	Benjamin T. Nordmann	09/21/2021 11:03	Alexandra J Mattheus	2275593
EPA 353.2 Rev. 2.0	09/13/2021			09/15/2021 11:12	Beverly Y. Sanders	2275586
	09/13/2021			09/15/2021 11:13	Beverly Y. Sanders	2275587
	09/13/2021			09/15/2021 11:14	Beverly Y. Sanders	2275588
	09/13/2021			09/15/2021 11:20	Beverly Y. Sanders	2275593
EPA 365.1 Rev. 2.0	09/13/2021	09/15/2021 10:36	Simonne.V. Calhoun	09/16/2021 16:36	Virginia P. Brown	2275586
	09/13/2021	09/15/2021 10:36	Simonne.V. Calhoun	09/16/2021 16:37	Virginia P. Brown	2275587
	09/13/2021	09/15/2021 10:36	Simonne.V. Calhoun	09/16/2021 16:42	Virginia P. Brown	2275588
	09/13/2021	09/15/2021 10:36	Simonne.V. Calhoun	09/16/2021 16:43	Virginia P. Brown	2275593
EPA 365.1 Rev. 2.0 dissolved	09/13/2021			09/14/2021 15:28	Blanca Fach	2275589
	09/13/2021			09/14/2021 15:37	Blanca Fach	2275590
	09/13/2021			09/14/2021 15:38	Blanca Fach	2275591
	09/13/2021			09/14/2021 15:39	Blanca Fach	2275594
EPA 8270E	09/13/2021	09/14/2021 08:30	Rasheda Ghaffari	09/21/2021 14:45	Vandana T. Nagar	2275602
	09/13/2021	09/17/2021 08:30	Fe-Val Siddell	09/21/2021 23:30	Arthur Maknenko	2275601
EPA 8276	09/13/2021	09/17/2021 08:30	Fe-Val Siddell	09/24/2021 04:29	Julie Wi	2275601

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	09/13/2021	09/14/2021 09:00	Hoor Shaik	09/14/2021 22:59	Juyoung Kim	2275599
	09/13/2021	09/14/2021 12:00	Hoor Shaik	09/15/2021 13:59	Juyoung Kim	2275600
	09/13/2021	09/14/2021 12:00	Manjita Shrestha	09/14/2021 18:55	Manjita Shrestha	2275659
	09/13/2021	09/17/2021 08:00	Mohammad Ghaffari	09/17/2021 10:41	Mohammad Ghaffari	2275600
	09/13/2021	09/17/2021 08:00	Mohammad Ghaffari	09/17/2021 14:27	Manjita Shrestha	2275600
SM 2120 B-2011	09/13/2021			09/14/2021 17:34	Sarah A Nixon	2275583, 2275584
	09/13/2021			09/14/2021 17:35	Sarah A Nixon	2275585
	09/13/2021			09/14/2021 17:36	Sarah A Nixon	2275592
SM 2320 B-2011	09/13/2021			09/15/2021 13:55	Dale L. Simmons	2275592
	09/13/2021			09/15/2021 16:54	Dale L. Simmons	2275583
	09/13/2021			09/15/2021 17:10	Dale L. Simmons	2275584
SM 2340B	09/13/2021			09/15/2021 17:25	Dale L. Simmons	2275585
	09/13/2021			09/16/2021 13:58	Josef B Mick	2275603
	09/13/2021			09/16/2021 14:06	Josef B Mick	2275604
	09/13/2021			09/16/2021 14:38	Josef B Mick	2275605
	09/13/2021			09/16/2021 14:45	Josef B Mick	2275606
SM 2540 C-2011	09/13/2021			09/16/2021 15:25	Yijie Li	2275583, 2275584, 2275585, 2275592
SM 2540 D-2011	09/13/2021			09/16/2021 15:25	Yijie Li	2275583, 2275584, 2275585, 2275592
SM 4500 F-C-2011	09/13/2021			09/15/2021 13:42	Dale L. Simmons	2275592
	09/13/2021			09/15/2021 16:54	Dale L. Simmons	2275583
	09/13/2021			09/15/2021 17:10	Dale L. Simmons	2275584
	09/13/2021			09/15/2021 17:25	Dale L. Simmons	2275585
SM 5310 B-2011	09/13/2021			09/18/2021 01:48	Touraj Touran	2275586
	09/13/2021			09/18/2021 04:40	Touraj Touran	2275587
	09/13/2021			09/18/2021 04:53	Touraj Touran	2275588
	09/13/2021			09/18/2021 05:05	Touraj Touran	2275593