

Chemical Analysis Report

WAS-SECT-2021-09-07-01

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

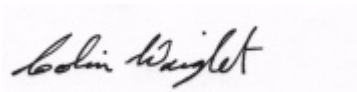
Event Description: **Little River Tribs.**
Request ID: **RQ-2021-09-06-12**
Customer: **WAS-SECT**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 28-SEP-2021 08:51

A handwritten signature in black ink, appearing to read "Colin Wright", is shown on a light-colored background.

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: Double Branch at CR159

Collection Date/Time: 09/07/2021 10:29

Field ID: G1WA0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273744	EPA 180.1 Rev. 2.0	Turbidity	70		NTU	P403484	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P403561	
		Sulfate	0.63		mg SO4/L	P403562	
	SM 2120 B-2011	Color (true)	210	J	PCU	P403486	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P403654	
	SM 2540 C-2011	TDS	63		mg/L	P403987	
	SM 2540 D-2011	TSS	96		mg/L	P403978	
	SM 4500 F-C-2011	Fluoride	0.055	I	mg F/L	P403658	
2273747	EPA 350.1 Rev. 2.0	Ammonia-N	0.066		mg N/L	P403529	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	7.9		mg N/L	P403662	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P403445	
	EPA 365.1 Rev. 2.0	Total-P	3.0		mg P/L	P403467	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P403619	
2273750	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P403473	
2273767	EPA 8321B	2,4-D	0.0020	U	ug/L	P403442	
		Acesulfame K	0.10	U	ug/L	P403456	
		2,4,5-T	0.0040	U	ug/L	P403442	
		AMPA	0.10	U	ug/L	P403456	
		Acetaminophen	0.0080	U	ug/L	P403442	
		Acetamiprid	0.0020	U	ug/L	P403442	
		Endothall	0.25	U	ug/L	P403456	
		Glufosinate	0.10	U	ug/L	P403456	
		Glyphosate	0.10	U	ug/L	P403456	
		Afidopyropen	0.0020	U	ug/L	P403442	
		Bentazon	8.0E-04	U	ug/L	P403442	
		Sucralose	0.027	I	ug/L	P403456	
		Benzovindiflupyr	0.0020	U	ug/L	P403442	
		Carbamazepine	8.0E-04	U	ug/L	P403442	
		Clothianidin	0.0020	U	ug/L	P403442	
		Dinotefuran	0.0020	U	ug/L	P403442	
		Diuron	0.0020	U	ug/L	P403442	
		Fenuron	0.016	U	ug/L	P403442	
		Fluridone	8.0E-04	U	ug/L	P403442	
		Imazapyr	0.0040	U	ug/L	P403442	
		Hydrocodone	0.0020	U	ug/L	P403442	
		Ibuprofen	0.020	U	ug/L	P403442	
		Imidacloprid	0.0020	U	ug/L	P403442	
		Linuron	0.0040	U	ug/L	P403442	
		Mandestrobin	0.0020	U	ug/L	P403442	
		MCP	0.0020	U	ug/L	P403442	
		Naproxen	0.0080	U	ug/L	P403442	
		Primidone	0.0040	U	ug/L	P403442	
		Pyraclostrobin	0.0020	U	ug/L	P403442	

Field ID: G1WA0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273767	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P403442	
		Tolfenpyrad	0.0020	U	ug/L	P403442	
		Triclopyr	0.0040	U	ug/L	P403442	
2273776	EPA 200.7 Rev. 4.4	Barium	64.8		ug/L	P403455	
		Calcium	8.62		mg/L	P403455	
		Iron	1.43E+04		ug/L	P403455	
		Magnesium	1.76		mg/L	P403455	
		Manganese	1.05E+03		ug/L	P403455	
		Potassium	0.95	I	mg/L	P403455	
		Sodium	2.7		mg/L	P403455	
		Strontium	33.1		ug/L	P403455	
		Tin	3.0	U	ug/L	P403455	
		Titanium	106		ug/L	P403455	
		Vanadium	10.9		ug/L	P403455	
		Zinc	15	I	ug/L	P403455	
	EPA 200.8 Rev. 5.4	Aluminum	3.41E+03		ug/L	P403455	
		Antimony	0.067	I	ug/L	P403455	
		Arsenic	3.27		ug/L	P403455	
		Beryllium	0.204		ug/L	P403455	
		Boron**	22.3		ug/L	P403455	
		Cadmium	0.092		ug/L	P403455	
		Chromium	5.4		ug/L	P403455	
		Cobalt	1.57		ug/L	P403455	
		Copper	1.43		ug/L	P403455	
		Lead	2.48		ug/L	P403455	
		Molybdenum	0.22	I	ug/L	P403455	
		Nickel	1.3	I	ug/L	P403455	
		Selenium	0.43	I	ug/L	P403455	
		Silver	0.018	I	ug/L	P403455	
		Thallium	0.10	U	ug/L	P403455	
	SM 2340B	Hardness	28.8		mg/L	P403455	

Ref. Method and Comment:

SM 2120 B-2011: The result may be biased high because of matrix interference.

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 200.8 Rev. 5.4: The beryllium and lead result was confirmed on 09/21/2021.

Sample Location: Hurricane Creek at US 90

Collection Date/Time: 09/07/2021 11:08

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273738	EPA 180.1 Rev. 2.0	Turbidity	8.2	A	NTU	P403484	
	EPA 300.0 Rev. 2.1	Chloride	9.4		mg Cl/L	P403561	
		Sulfate	10		mg SO4/L	P403562	
	SM 2120 B-2011	Color (true)	45	A	PCU	P403486	
	SM 2320 B-2011	Total Alkalinity	40		mg CaCO3/L	P403654	
	SM 2540 C-2011	TDS	89		mg/L	P403987	
	SM 2540 D-2011	TSS	8	I	mg/L	P403978	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P403658	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P403529	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P403511	
2273740	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P403445	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P403467	
	SM 5310 B-2011	Organic Carbon	7.1		mg C/L	P403619	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.18		mg P/L	P403473	
	dissolved						
2273763	EPA 8321B	Aldicarb	0.020	U	ug/L	P403546	
		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	0.0020	U	ug/L	P403546	
		Propoxur	0.0020	U	ug/L	P403546	
2273765		2,4-D	0.047		ug/L	P403442	
		Acesulfame K	0.10	U	ug/L	P403456	
		2,4,5-T	0.0040	U	ug/L	P403442	
		AMPA	1.0		ug/L	P403456	
		Acetaminophen	0.0080	U	ug/L	P403442	
		Acetamiprid	0.0064	I	ug/L	P403442	
		Endothall	0.25	U	ug/L	P403456	
		Glufosinate	0.10	U	ug/L	P403456	
		Glyphosate	0.35	I	ug/L	P403456	
		Afidopyropen	0.0020	U	ug/L	P403442	
		Bentazon	0.36		ug/L	P403442	
		Sucralose	0.075		ug/L	P403456	
		Benzovindiflupyr	0.0041	I	ug/L	P403442	
		Carbamazepine	8.0E-04	U	ug/L	P403442	
		Clothianidin	0.0020	U	ug/L	P403442	
		Dinotefuran	0.015		ug/L	P403442	
		Diuron	0.0020	U	ug/L	P403442	
		Fenuron	0.016	U	ug/L	P403442	
		Fluridone	8.0E-04	U	ug/L	P403442	

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273765	EPA 8321B	Imazapyr	0.0052	I	ug/L	P403442	
		Hydrocodone	0.0020	U	ug/L	P403442	
		Ibuprofen	0.020	U	ug/L	P403442	
		Imidacloprid	0.036		ug/L	P403442	
		Linuron	0.0040	U	ug/L	P403442	
		Mandestrobin	0.0020	U	ug/L	P403442	
		MCP	0.0020	U	ug/L	P403442	
		Naproxen	0.0080	U	ug/L	P403442	
		Primidone	0.0040	U	ug/L	P403442	
		Pyraclostrobin	0.0020	U	ug/L	P403442	
		Thiamethoxam	0.0038	I	ug/L	P403442	
		Tolfenpyrad	0.0020	U	ug/L	P403442	
		Triclopyr	0.0040	U	ug/L	P403442	
2273770	EPA 8270E	Aldrin	0.67	UJ	ng/L	P403591	LCS
		Alpha-BHC	0.10	U	ng/L	P403591	
		Alpha-Chlordane	0.21	U	ng/L	P403591	
		Beta-BHC	0.10	U	ng/L	P403591	
		Beta-Cyfluthrin**	1.3	U	ng/L	P403591	
		Bifenthrin**	0.51	U	ng/L	P403591	
		Chlorothalonil	0.51	U	ng/L	P403591	
		Cis-Nonachlor**	0.21	U	ng/L	P403591	
		Cypermethrin	1.5	U	ng/L	P403591	
		Dacthal**	0.15	U	ng/L	P403591	
		DDD-p,p'	0.26	U	ng/L	P403591	
		DDE-p,p'	0.21	U	ng/L	P403591	
		DDT-p,p'	0.26	U	ng/L	P403591	
		Delta-BHC	0.41	U	ng/L	P403591	
		Deltamethrin**	1.3	U	ng/L	P403591	RPD
		Dichlobenil**	0.10	U	ng/L	P403591	
		Dicofol	1.3	U	ng/L	P403591	
		Dieldrin	0.41	U	ng/L	P403591	
		Endosulfan I	0.41	U	ng/L	P403591	
		Endosulfan II	0.41	U	ng/L	P403591	MS
		Endosulfan Sulfate	0.31	U	ng/L	P403591	
		Endrin	0.41	U	ng/L	P403591	
		Endrin Aldehyde	0.77	UJ	ng/L	P403591	CCV
		Endrin Ketone	0.41	U	ng/L	P403591	
		Esfenvalerate**	0.77	U	ng/L	P403591	
		Ethalfuralin**	0.15	U	ng/L	P403591	
		Fenpropathrin**	0.26	U	ng/L	P403591	
		Gamma-BHC	0.13	U	ng/L	P403591	
		Gamma-Chlordane	0.21	U	ng/L	P403591	
		Heptachlor	0.21	U	ng/L	P403591	
		Heptachlor Epoxide	0.26	U	ng/L	P403591	
		Hexachlorobenzene	1.0	U	ng/L	P403591	

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273770	EPA 8270E	Kepone**	5.1	U	ng/L	P403591	
		Lambda-Cyhalothrin**	0.77	U	ng/L	P403591	
		Methoprene**	0.77	U	ng/L	P403591	
		Methoxychlor	0.31	U	ng/L	P403591	
		MGK-264**	0.21	U	ng/L	P403591	
		Mirex	0.72	U	ng/L	P403591	
		Oxychlordane**	0.31	U	ng/L	P403591	
		Permethrin	1.6	U	ng/L	P403591	
		Phenothrin**	0.93	U	ng/L	P403591	
		Piperonyl Butoxide**	0.15	U	ng/L	P403591	
		Prallethrin**	2.1	U	ng/L	P403591	
		Tau-Fluvalinate**	0.26	U	ng/L	P403591	
		Tetramethrin**	0.77	U	ng/L	P403591	
		Trans-Nonachlor**	0.21	U	ng/L	P403591	
		Triclosan Methyl**	0.15	U	ng/L	P403591	
		Trifluralin	0.21	U	ng/L	P403591	
	EPA 8276	Chlordane	5.1	U	ng/L	P403591	
		Toxaphene	31	U	ng/L	P403591	
2273772	EPA 8270E	Acetochlor	0.24	U	ng/L	P403558	
		Alachlor	0.24	U	ng/L	P403558	
		Ametryn	0.57	U	ng/L	P403558	
		Atrazine	2.0		ng/L	P403558	
		Atrazine Desethyl	1.6	I	ng/L	P403558	
		Azinphos Methyl	1.9	U	ng/L	P403558	
		Azoxystrobin**	180		ng/L	P403558	
		Bromacil	0.48	U	ng/L	P403558	
		Butylate	0.38	U	ng/L	P403558	
		Caffeine**	7.1	U	ng/L	P403558	RPD
		Carbophenothion	0.48	U	ng/L	P403558	
		Carfentrazone Ethyl**	0.095	U	ng/L	P403558	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P403558	
		Chlorpyrifos Methyl	0.048	U	ng/L	P403558	
		Cyanazine	3.1	U	ng/L	P403558	
		Demeton	1.4	U	ng/L	P403558	
		Diazinon	0.12	U	ng/L	P403558	
		Difenoconazole**	0.57	U	ng/L	P403558	
		Dimethenamid**	210		ng/L	P403558	
		Disulfoton	0.48	U	ng/L	P403558	RPD
		Dithiopyr**	0.17	U	ng/L	P403558	
		EPTC	1.2	U	ng/L	P403558	
		Ethion	0.14	U	ng/L	P403558	
		Ethoprop	0.095	U	ng/L	P403558	
		Fenamiphos	0.48	U	ng/L	P403558	
		Fenbuconazole**	0.12	U	ng/L	P403558	
		Fipronil	0.24	U	ng/L	P403558	

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273772	EPA 8270E	Fipronil Desulfinyl**	0.12	UJ	ng/L	P403558	LCS
		Fipronil Sulfide	0.14	U	ng/L	P403558	
		Fipronil Sulfone	0.14	U	ng/L	P403558	
		Fluazifop-P-butyl**	0.095	U	ng/L	P403558	
		Fludioxonil**	0.19	I	ng/L	P403558	
		Flumioxazin**	1.7	U	ng/L	P403558	
		Flutolanil**	13		ng/L	P403558	
		Fluxapyroxad**	95		ng/L	P403558	
		Fonofos	0.19	U	ng/L	P403558	
		Hexazinone	0.48	U	ng/L	P403558	
		Imazalil**	0.71	U	ng/L	P403558	
		Iprodione**	41		ng/L	P403558	
		Malathion	0.33	U	ng/L	P403558	
		Metalaxyl	0.71	U	ng/L	P403558	
		Metolachlor	0.42	I	ng/L	P403558	
		Metribuzin	3.1	U	ng/L	P403558	
		Mevinphos	1.0	U	ng/L	P403558	
		Molinate	0.29	U	ng/L	P403558	
		Myclobutanil**	74		ng/L	P403558	
		Naled**	1.4	U	ng/L	P403558	
		Norflurazon	0.48	U	ng/L	P403558	
		Oxadiazon	1.3		ng/L	P403558	
		Oxyfluorfen**	0.14	U	ng/L	P403558	
		Parathion Ethyl	0.24	U	ng/L	P403558	
		Parathion Methyl	0.52	U	ng/L	P403558	
		Pendimethalin	0.95	U	ng/L	P403558	
		Phorate	0.50	U	ng/L	P403558	
		Prodiamine**	0.29	U	ng/L	P403558	
		Prometon	0.86	U	ng/L	P403558	
		Prometryn	0.19	U	ng/L	P403558	
		Pronamide**	0.14	U	ng/L	P403558	
		Propiconazole**	120		ng/L	P403558	
		Pyriproxyfen**	0.12	U	ng/L	P403558	
		Simazine	0.48	U	ng/L	P403558	
		Sulfentrazone**	0.48	U	ng/L	P403558	
		Tebuconazole**	2.6		ng/L	P403558	
		Terbufos	0.095	U	ng/L	P403558	
		Terbuthylazine	0.40	U	ng/L	P403558	
2273774	EPA 200.7 Rev. 4.4	Barium	12.4		ug/L	P403455	
		Calcium	13.5		mg/L	P403455	
		Iron	630		ug/L	P403455	
		Magnesium	5.36		mg/L	P403455	
		Manganese	25.1		ug/L	P403455	
		Potassium	2.3		mg/L	P403455	
		Sodium	5.9		mg/L	P403455	

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273774	EPA 200.7 Rev. 4.4	Strontium	84.0		ug/L	P403455	
		Tin	3.0	U	ug/L	P403455	
		Titanium	5.1		ug/L	P403455	
		Vanadium	2.8	I	ug/L	P403455	
		Zinc	5.0	U	ug/L	P403455	
	EPA 200.8 Rev. 5.4	Aluminum	283		ug/L	P403455	
		Antimony	0.055	I	ug/L	P403455	
		Arsenic	1.29		ug/L	P403455	
		Beryllium	0.023	I	ug/L	P403455	
		Boron**	17.5		ug/L	P403455	
		Cadmium	0.020	U	ug/L	P403455	
		Chromium	0.62	I	ug/L	P403455	
		Cobalt	0.079	I	ug/L	P403455	
		Copper	0.40	U	ug/L	P403455	
		Lead	0.23	I	ug/L	P403455	
		Molybdenum	0.41	I	ug/L	P403455	
		Nickel	0.50	U	ug/L	P403455	
		Selenium	0.20	U	ug/L	P403455	
		Silver	0.010	U	ug/L	P403455	
		Thallium	0.10	U	ug/L	P403455	
	SM 2340B	Hardness	55.8		mg/L	P403455	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample. Batch relative percent difference is unavailable because of analytical difficulties.

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.

Sample Location: Lewis Creek Upstream of 157

Collection Date/Time: 09/07/2021 12:06

Field ID: G1WA0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273745	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P403484	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P403561	
		Sulfate	0.26	I	mg SO4/L	P403562	
	SM 2120 B-2011	Color (true)	52		PCU	P403486	
	SM 2320 B-2011	Total Alkalinity	14		mg CaCO3/L	P403654	
	SM 2540 C-2011	TDS	45		mg/L	P403987	
	SM 2540 D-2011	TSS	3	I	mg/L	P403978	
2273748	SM 4500 F-C-2011	Fluoride	0.071	I	mg F/L	P403658	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.057		mg N/L	P403529	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P403511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.039		mg N/L	P403445	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P403467	
2273751	SM 5310 B-2011	Organic Carbon	8.5		mg C/L	P403619	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P403473	
2273768	EPA 8321B	2,4-D	0.0041	I	ug/L	P403442	
		Acesulfame K	0.10	U	ug/L	P403456	
		2,4,5-T	0.0040	U	ug/L	P403442	
		AMPA	0.10	U	ug/L	P403456	
		Acetaminophen	0.0080	U	ug/L	P403442	
		Acetamiprid	0.0020	U	ug/L	P403442	
		Endothall	0.25	U	ug/L	P403456	
		Glufosinate	0.10	U	ug/L	P403456	
		Glyphosate	0.10	U	ug/L	P403456	
		Afidopyropen	0.0020	U	ug/L	P403442	
		Bentazon	8.0E-04	U	ug/L	P403442	
		Sucralose	0.44		ug/L	P403456	
		Benzovindiflupyr	0.0020	U	ug/L	P403442	
		Carbamazepine	8.0E-04	U	ug/L	P403442	
		Clothianidin	0.0020	U	ug/L	P403442	
		Dinotefuran	0.0020	U	ug/L	P403442	
		Diuron	0.0020	U	ug/L	P403442	
		Fenuron	0.016	U	ug/L	P403442	
		Fluridone	9.2E-04	I	ug/L	P403442	
		Imazapyr	0.0053	I	ug/L	P403442	
		Hydrocodone	0.0020	U	ug/L	P403442	
		Ibuprofen	0.020	U	ug/L	P403442	
		Imidacloprid	0.0020	U	ug/L	P403442	
		Linuron	0.0040	U	ug/L	P403442	
		Mandestrobin	0.0020	U	ug/L	P403442	
		MCP	0.0020	U	ug/L	P403442	
		Naproxen	0.010	I	ug/L	P403442	
		Primidone	0.0040	U	ug/L	P403442	
		Pyraclostrobin	0.0020	U	ug/L	P403442	

Field ID: G1WA0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273768	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P403442	
		Tolfenpyrad	0.0020	U	ug/L	P403442	
		Triclopyr	0.0040	U	ug/L	P403442	
2273777	EPA 200.7 Rev. 4.4	Barium	10		ug/L	P403455	
		Calcium	4.62		mg/L	P403455	
		Iron	1.01E+03		ug/L	P403455	
		Magnesium	1.94		mg/L	P403455	
		Manganese	77.0		ug/L	P403455	
		Potassium	0.33	I	mg/L	P403455	
		Sodium	4.1		mg/L	P403455	
		Strontium	16.4		ug/L	P403455	
		Tin	3.0	U	ug/L	P403455	
		Titanium	1.7	I	ug/L	P403455	
		Vanadium	2.0	U	ug/L	P403455	
		Zinc	5.0	U	ug/L	P403455	
	EPA 200.8 Rev. 5.4	Aluminum	66		ug/L	P403455	
		Antimony	0.050	U	ug/L	P403455	
		Arsenic	0.80		ug/L	P403455	
		Beryllium	0.012	I	ug/L	P403455	
		Boron**	16.5		ug/L	P403455	
		Cadmium	0.020	U	ug/L	P403455	
		Chromium	0.40	U	ug/L	P403455	
		Cobalt	0.066	I	ug/L	P403455	
		Copper	0.40	U	ug/L	P403455	
		Lead	0.20	U	ug/L	P403455	
		Molybdenum	0.15	U	ug/L	P403455	
		Nickel	0.50	U	ug/L	P403455	
		Selenium	0.20	U	ug/L	P403455	
		Silver	0.010	U	ug/L	P403455	
		Thallium	0.10	U	ug/L	P403455	
	SM 2340B	Hardness	19.5		mg/L	P403455	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample. Batch relative percent difference is unavailable because of analytical difficulties.

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

Sample Location: Willachoochee Creek at 161

Collection Date/Time: 09/07/2021 09:46

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273739	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P403484	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P403561	
		Sulfate	0.58		mg SO4/L	P403562	
	SM 2120 B-2011	Color (true)	74	J	PCU	P403486	
	SM 2320 B-2011	Total Alkalinity	17		mg CaCO3/L	P403654	
	SM 2540 C-2011	TDS	53		mg/L	P403987	
	SM 2540 D-2011	TSS	13		mg/L	P403978	
	SM 4500 F-C-2011	Fluoride	0.071	I	mg F/L	P403658	
2273741	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P403529	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P403511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.86		mg N/L	P403445	
	EPA 365.1 Rev. 2.0	Total-P	0.091		mg P/L	P403467	
	SM 5310 B-2011	Organic Carbon	5.2		mg C/L	P403619	
2273743	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P403473	
2273764	EPA 8321B	Aldicarb	0.020	U	ug/L	P403546	
		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	0.0020	U	ug/L	P403546	
		Propoxur	0.0020	U	ug/L	P403546	
		2,4-D	0.0044	I	ug/L	P403442	
		Acesulfame K	0.10	U	ug/L	P403456	
		2,4,5-T	0.0040	U	ug/L	P403442	
2273766		AMPA	0.10	U	ug/L	P403456	
		Acetaminophen	0.0080	U	ug/L	P403442	
		Acetamiprid	0.0020	U	ug/L	P403442	
		Endothall	0.25	U	ug/L	P403456	
		Glufosinate	0.10	U	ug/L	P403456	
		Glyphosate	0.10	U	ug/L	P403456	
		Afidopyropen	0.0020	U	ug/L	P403442	
		Bentazon	0.015		ug/L	P403442	
		Sucralose	0.043		ug/L	P403456	
		Benzovindiflupyr	0.013		ug/L	P403442	
		Carbamazepine	8.7E-04	I	ug/L	P403442	
		Clothianidin	0.0020	U	ug/L	P403442	
		Dinotefuran	0.086		ug/L	P403442	
		Diuron	0.0029	I	ug/L	P403442	
		Fenuron	0.016	U	ug/L	P403442	
		Fluridone	8.0E-04	U	ug/L	P403442	

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273766	EPA 8321B	Imazapyr	0.012	I	ug/L	P403442	
		Hydrocodone	0.0020	U	ug/L	P403442	
		Ibuprofen	0.020	U	ug/L	P403442	
		Imidacloprid	0.0069	I	ug/L	P403442	
		Linuron	0.0040	U	ug/L	P403442	
		Mandestrobin	0.0020	U	ug/L	P403442	
		MCP	0.0020	U	ug/L	P403442	
		Naproxen	0.0080	U	ug/L	P403442	
		Primidone	0.0040	U	ug/L	P403442	
		Pyraclostrobin	0.0020	U	ug/L	P403442	
		Thiamethoxam	0.0020	U	ug/L	P403442	
		Tolfenpyrad	0.0020	U	ug/L	P403442	
		Triclopyr	0.0040	U	ug/L	P403442	
2273771	EPA 8270E	Aldrin	0.67	UJ	ng/L	P403591	LCS
		Alpha-BHC	0.10	U	ng/L	P403591	
		Alpha-Chlordane	0.23	I	ng/L	P403591	
		Beta-BHC	0.10	U	ng/L	P403591	
		Beta-Cyfluthrin**	1.3	U	ng/L	P403591	
		Bifenthrin**	0.51	U	ng/L	P403591	
		Chlorothalonil	0.51	I	ng/L	P403591	
		Cis-Nonachlor**	0.20	U	ng/L	P403591	
		Cypermethrin	1.5	U	ng/L	P403591	
		Dacthal**	0.15	U	ng/L	P403591	
		DDD-p,p'	0.26	U	ng/L	P403591	
		DDE-p,p'	0.20	U	ng/L	P403591	
		DDT-p,p'	0.26	U	ng/L	P403591	
		Delta-BHC	0.41	U	ng/L	P403591	
		Deltamethrin**	1.3	U	ng/L	P403591	RPD
		Dichlobenil**	0.10	U	ng/L	P403591	
		Dicofol	1.3	U	ng/L	P403591	
		Dieldrin	0.67	I	ng/L	P403591	
		Endosulfan I	0.41	U	ng/L	P403591	
		Endosulfan II	0.41	U	ng/L	P403591	MS
		Endosulfan Sulfate	0.47	I	ng/L	P403591	
		Endrin	0.41	U	ng/L	P403591	
		Endrin Aldehyde	0.77	UJ	ng/L	P403591	CCV
		Endrin Ketone	0.41	U	ng/L	P403591	
		Esfenvalerate**	0.77	U	ng/L	P403591	
		Ethalfuralin**	0.15	U	ng/L	P403591	
		Fenpropathrin**	0.26	U	ng/L	P403591	
		Gamma-BHC	0.13	U	ng/L	P403591	
		Gamma-Chlordane	0.34	I	ng/L	P403591	
		Heptachlor	0.20	U	ng/L	P403591	
		Heptachlor Epoxide	0.26	U	ng/L	P403591	
		Hexachlorobenzene	1.0	U	ng/L	P403591	

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273771	EPA 8270E	Kepone**	5.1	U	ng/L	P403591	
		Lambda-Cyhalothrin**	0.89	I	ng/L	P403591	
		Methoprene**	0.77	U	ng/L	P403591	
		Methoxychlor	0.31	U	ng/L	P403591	
		MGK-264**	0.20	U	ng/L	P403591	
		Mirex	0.72	U	ng/L	P403591	
		Oxychlordane**	0.31	U	ng/L	P403591	
		Permethrin	1.6	U	ng/L	P403591	
		Phenothrin**	0.92	U	ng/L	P403591	
		Piperonyl Butoxide**	0.15	U	ng/L	P403591	
		Prallethrin**	2.0	U	ng/L	P403591	
		Tau-Fluvalinate**	0.26	U	ng/L	P403591	
		Tetramethrin**	0.77	U	ng/L	P403591	
		Trans-Nonachlor**	0.20	U	ng/L	P403591	
		Triclosan Methyl**	0.15	U	ng/L	P403591	
		Trifluralin	0.20	U	ng/L	P403591	
	EPA 8276	Chlordane	5.1	U	ng/L	P403591	
		Toxaphene	31	U	ng/L	P403591	
2273773	EPA 8270E	Acetochlor	1.7		ng/L	P403558	
		Alachlor	0.24	U	ng/L	P403558	
		Ametryn	0.57	U	ng/L	P403558	
		Atrazine	3.4		ng/L	P403558	
		Atrazine Desethyl	1.9	I	ng/L	P403558	
		Azinphos Methyl	1.9	U	ng/L	P403558	
		Azoxystrobin**	2.1		ng/L	P403558	
		Bromacil	0.48	U	ng/L	P403558	
		Butylate	0.38	U	ng/L	P403558	
		Caffeine**	7.2	U	ng/L	P403558	RPD
		Carbophenothion	0.48	U	ng/L	P403558	
		Carfentrazone Ethyl**	0.096	U	ng/L	P403558	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P403558	
		Chlorpyrifos Methyl	0.048	U	ng/L	P403558	
		Cyanazine	3.1	U	ng/L	P403558	
		Demeton	1.4	U	ng/L	P403558	
		Diazinon	0.12	U	ng/L	P403558	
		Difenoconazole**	4.5		ng/L	P403558	
		Dimethenamid**	0.096	U	ng/L	P403558	
		Disulfoton	0.48	U	ng/L	P403558	RPD
		Dithiopyr**	0.17	U	ng/L	P403558	
		EPTC	1.2	U	ng/L	P403558	
		Ethion	0.14	U	ng/L	P403558	
		Ethoprop	0.096	U	ng/L	P403558	
		Fenamiphos	0.48	U	ng/L	P403558	
		Fenbuconazole**	0.12	U	ng/L	P403558	
		Fipronil	0.24	U	ng/L	P403558	

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273773	EPA 8270E	Fipronil Desulfinyl**	0.12	UJ	ng/L	P403558	LCS
		Fipronil Sulfide	0.14	U	ng/L	P403558	
		Fipronil Sulfone	0.14	U	ng/L	P403558	
		Fluazifop-P-butyl**	0.096	U	ng/L	P403558	
		Fludioxonil**	1.1		ng/L	P403558	
		Flumioxazin**	1.7	U	ng/L	P403558	
		Flutolanil**	2.2		ng/L	P403558	
		Fluxapyroxad**	3.3		ng/L	P403558	
		Fonofos	0.19	U	ng/L	P403558	
		Hexazinone	6.4		ng/L	P403558	
		Imazalil**	0.72	U	ng/L	P403558	
		Iprodione**	0.57	U	ng/L	P403558	
		Malathion	0.33	U	ng/L	P403558	
		Metalaxyl	0.72	I	ng/L	P403558	
		Metolachlor	48		ng/L	P403558	
		Metribuzin	4.8	I	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**	1.4	U	ng/L	P403558	
		Norflurazon	1.5	I	ng/L	P403558	
		Oxadiazon	0.29	U	ng/L	P403558	
		Oxyfluorfen**	0.14	U	ng/L	P403558	
		Parathion Ethyl	0.24	U	ng/L	P403558	
		Parathion Methyl	0.53	U	ng/L	P403558	
		Pendimethalin	0.96	U	ng/L	P403558	
		Phorate	0.50	U	ng/L	P403558	
		Prodiamine**	0.29	U	ng/L	P403558	
		Prometon	0.86	U	ng/L	P403558	
		Prometryn	0.19	U	ng/L	P403558	
		Pronamide**	0.14	U	ng/L	P403558	
		Propiconazole**	0.48	U	ng/L	P403558	
		Pyriproxyfen**	0.12	U	ng/L	P403558	
		Simazine	0.48	U	ng/L	P403558	
		Sulfentrazone**	0.48	U	ng/L	P403558	
		Tebuconazole**	9.3		ng/L	P403558	
		Terbufos	0.096	U	ng/L	P403558	
		Terbuthylazine	0.41	U	ng/L	P403558	
2273775	EPA 200.7 Rev. 4.4	Barium	25.2		ug/L	P403455	
		Calcium	5.86		mg/L	P403455	
		Iron	1.68E+03		ug/L	P403455	
		Magnesium	2.77		mg/L	P403455	
		Manganese	52.2		ug/L	P403455	
		Potassium	0.65	I	mg/L	P403455	
		Sodium	3.1		mg/L	P403455	

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273775	EPA 200.7 Rev. 4.4	Strontium	26.2		ug/L	P403455	
		Tin	3.0	U	ug/L	P403455	
		Titanium	18.2		ug/L	P403455	
		Vanadium	2.1	I	ug/L	P403455	
		Zinc	5.0	U	ug/L	P403455	
	EPA 200.8 Rev. 5.4	Aluminum	518		ug/L	P403455	
		Antimony	0.050	U	ug/L	P403455	
		Arsenic	0.83		ug/L	P403455	
		Beryllium	0.034	I	ug/L	P403455	
		Boron**	11.3		ug/L	P403455	
		Cadmium	0.020	U	ug/L	P403455	
		Chromium	0.80	I	ug/L	P403455	
		Cobalt	0.180		ug/L	P403455	
		Copper	0.71	I	ug/L	P403455	
		Lead	0.49		ug/L	P403455	
		Molybdenum	0.15	U	ug/L	P403455	
		Nickel	0.50	U	ug/L	P403455	
		Selenium	0.20	U	ug/L	P403455	
		Silver	0.010	U	ug/L	P403455	
		Thallium	0.10	U	ug/L	P403455	
	SM 2340B	Hardness	26.1		mg/L	P403455	

Ref. Method and Comment:

SM 2120 B-2011: The result may be biased high because of matrix interference.

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample. Batch relative percent difference is unavailable because of analytical difficulties.

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.

Sample Location: Richlander Creek at CR 65B

Collection Date/Time: 09/07/2021 08:56

Field ID: G1WA0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273746	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P403484	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P403561	
		Sulfate	0.53		mg SO4/L	P403562	
	SM 2120 B-2011	Color (true)	57		PCU	P403486	
	SM 2320 B-2011	Total Alkalinity	16		mg CaCO3/L	P403654	
	SM 2540 C-2011	TDS	51		mg/L	P403987	
	SM 2540 D-2011	TSS	8	I	mg/L	P403978	
	SM 4500 F-C-2011	Fluoride	0.074	I	mg F/L	P403658	
2273749	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P403529	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P403511	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P403445	
	EPA 365.1 Rev. 2.0	Total-P	0.086		mg P/L	P403467	
	SM 5310 B-2011	Organic Carbon	4.1		mg C/L	P403619	
2273752	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P403473	
2273769	EPA 8321B	2,4-D	0.0020	U	ug/L	P403442	
		Acesulfame K	0.10	U	ug/L	P403456	
		2,4,5-T	0.0040	U	ug/L	P403442	
		AMPA	0.10	U	ug/L	P403456	
		Acetaminophen	0.0080	U	ug/L	P403442	
		Acetamiprid	0.0020	U	ug/L	P403442	
		Endothall	0.25	U	ug/L	P403456	
		Glufosinate	0.10	U	ug/L	P403456	
		Glyphosate	0.10	U	ug/L	P403456	
		Afidopyropen	0.0020	U	ug/L	P403442	
		Bentazon	0.0015	I	ug/L	P403442	
		Sucralose	0.11		ug/L	P403456	
		Benzovindiflupyr	0.0020	U	ug/L	P403442	
		Carbamazepine	8.0E-04	U	ug/L	P403442	
		Clothianidin	0.0020	U	ug/L	P403442	
		Dinotefuran	0.0020	U	ug/L	P403442	
		Diuron	0.0020	U	ug/L	P403442	
		Fenuron	0.016	U	ug/L	P403442	
		Fluridone	8.0E-04	U	ug/L	P403442	
		Imazapyr	0.0040	U	ug/L	P403442	
		Hydrocodone	0.0020	U	ug/L	P403442	
		Ibuprofen	0.020	U	ug/L	P403442	
		Imidacloprid	0.0025	I	ug/L	P403442	
		Linuron	0.0040	U	ug/L	P403442	
		Mandestrobin	0.0020	U	ug/L	P403442	
		MCP	0.0020	U	ug/L	P403442	
		Naproxen	0.0080	U	ug/L	P403442	
		Primidone	0.0040	U	ug/L	P403442	
		Pyraclostrobin	0.0020	U	ug/L	P403442	

Field ID: G1WA0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2273769	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P403442	
		Tolfenpyrad	0.0020	U	ug/L	P403442	
		Triclopyr	0.0040	U	ug/L	P403442	
2273778	EPA 200.7 Rev. 4.4	Barium	14.4		ug/L	P403455	
		Calcium	5.77		mg/L	P403455	
		Iron	1.83E+03		ug/L	P403455	
		Magnesium	1.76		mg/L	P403455	
		Manganese	43.8		ug/L	P403455	
		Potassium	0.41	I	mg/L	P403455	
		Sodium	4.1		mg/L	P403455	
		Strontium	19.3		ug/L	P403455	
		Tin	3.0	U	ug/L	P403455	
		Titanium	4.4		ug/L	P403455	
		Vanadium	2.0	U	ug/L	P403455	
		Zinc	5.0	U	ug/L	P403455	
	EPA 200.8 Rev. 5.4	Aluminum	231		ug/L	P403455	
		Antimony	0.050	U	ug/L	P403455	
		Arsenic	0.73		ug/L	P403455	
		Beryllium	0.016	I	ug/L	P403455	
		Boron**	11.6		ug/L	P403455	
		Cadmium	0.020	U	ug/L	P403455	
		Chromium	0.61	I	ug/L	P403455	
		Cobalt	0.124		ug/L	P403455	
		Copper	0.46	I	ug/L	P403455	
		Lead	0.25	I	ug/L	P403455	
		Molybdenum	0.15	U	ug/L	P403455	
		Nickel	0.50	U	ug/L	P403455	
		Selenium	0.20	U	ug/L	P403455	
		Silver	0.010	U	ug/L	P403455	
		Thallium	0.10	U	ug/L	P403455	
	SM 2340B	Hardness	21.6		mg/L	P403455	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample. Batch relative percent difference is unavailable because of analytical difficulties.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P403484

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P403455

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
Manganese	1.0	U	ug/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: P403455

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
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: P403561

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403562

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: P403529

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403511

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403662

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403445

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403467

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403473

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403558

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403558

Component	Result	Code	Units
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
Metalaxyl	0.75	U	ng/L
Metalaxyl	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403558

Component	Result	Code	Units
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
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P403591

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403591

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P403591

Component	Result	Code	Units
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: P403591

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: P403442

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
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: P403456

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P403456

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: 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: SM 2120 B-2011

Batch ID: P403486

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P403654

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

Reference Method: SM 2540 C-2011

Batch ID: P403987

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P403978

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P403658

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011

Batch ID: P403619

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: P403455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	107		P	85 - 115
Iron	108		P	85 - 115
Magnesium	109		P	85 - 115
Manganese	104		P	85 - 115
Potassium	102		P	85 - 115
Sodium	105		P	85 - 115
Strontium	101		P	85 - 115
Tin	102		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	99.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P403455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	101		P	85 - 115
Boron	100		P	85 - 115
Cadmium	99.9		P	85 - 115
Chromium	99.8		P	85 - 115
Cobalt	101		P	85 - 115
Copper	102		P	85 - 115
Lead	101		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	103		P	85 - 115
Selenium	101		P	85 - 115
Silver	103		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403561

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403562

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P403529

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P403511

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P403662

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P403445

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P403467

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P403473

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P403558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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
Terbutylazine	92.5	93.8	P/P	74 - 116

Reference Method: EPA 8270E

Batch ID: P403591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	86.0	90.7	F/F	20 - 83.0
Alpha-BHC	88.3	90.4	P/P	74 - 108
Alpha-Chlordane	90.6	97.1	P/P	53 - 109
Beta-BHC	93.0	99.4	P/P	64 - 139

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P403591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	110	106	P/P	27 - 171
Bifenthrin	92.1	93.2	P/P	20 - 124
Chlorothalonil	95.4	95.7	P/P	20 - 182
Cis-Nonachlor	81.9	84.6	P/P	46 - 110
Cypermethrin	97.0	95.3	P/P	35 - 160
Dacthal	95.7	99.4	P/P	70 - 115
DDD-p,p'	81.5	85.0	P/P	51 - 108
DDE-p,p'	92.0	97.8	P/P	51 - 104
DDT-p,p'	97.4	99.7	P/P	52 - 107
Delta-BHC	101	104	P/P	73 - 146
Deltamethrin	107	90.7	P/P	20 - 190
Dichlobenil	88.0	86.4	P/P	30 - 100
Dicofol	82.6	81.7	P/P	52 - 110
Dieldrin	97.1	103	P/P	57 - 111
Endosulfan I	89.3	96.7	P/P	61 - 106
Endosulfan II	82.6	85.7	P/P	57 - 122
Endosulfan Sulfate	80.8	73.3	P/P	58 - 122
Endrin	80.6	83.5	P/P	34 - 125
Endrin Aldehyde	84.5	79.0	P/P	40 - 120
Endrin Ketone	87.0	87.0	P/P	51 - 138
Esfenvalerate	101	97.6	P/P	20 - 193
Ethalfuralin	86.3	90.5	P/P	51 - 99.0
Fenpropathrin	91.3	90.5	P/P	40 - 116
Gamma-BHC	92.0	97.2	P/P	74 - 116
Gamma-Chlordane	90.9	95.8	P/P	49 - 105
Heptachlor	90.8	94.3	P/P	45 - 98.0
Heptachlor Epoxide	93.1	97.5	P/P	61 - 106
Hexachlorobenzene	91.6	93.7	P/P	41 - 96.0
Kepone	28.0	28.4	P/P	27 - 179
Lambda-Cyhalothrin	95.9	93.7	P/P	20 - 199
Methoprene	93.2	101	P/P	50 - 150
Methoxychlor	92.2	93.8	P/P	61 - 111
MGK-264	97.3	104	P/P	20 - 124
Mirex	83.0	84.7	P/P	20 - 199
Oxychlordane	85.3	95.5	P/P	50 - 150
Permethrin	95.7	95.5	P/P	31 - 155
Phenothrin	98.6	93.9	P/P	20 - 100
Piperonyl Butoxide	88.8	90.7	P/P	20 - 144
Prallethrin	92.3	92.3	P/P	20 - 103
Tau-Fluvalinate	101	98.0	P/P	24 - 133
Tetramethrin	88.3	91.2	P/P	20 - 116
Trans-Nonachlor	92.0	94.9	P/P	49 - 105
Triclosan Methyl	94.4	101	P/P	60 - 111
Trifluralin	86.8	87.8	P/P	53 - 97.0

Reference Method: EPA 8276

Batch ID: P403591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.2	79.6	P/P	56 - 117
Toxaphene	78.1	74.0	P/P	45 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P403442

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	104		P	40 - 150
Acetaminophen	80.1		P	30 - 150
Acetamiprid	95.3		P	40 - 150
Afidopyropen	79.1		P	40 - 150
Bentazon	124		P	30 - 150
Benzovindiflupyr	86.9		P	40 - 150
Carbamazepine	76.2		P	40 - 150
Clothianidin	99.5		P	40 - 150
Dinotefuran	94.3		P	40 - 150
Diuron	77.1		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	99.1		P	40 - 150
Hydrocodone	97.9		P	40 - 150
Ibuprofen	74.6		P	40 - 150
Imazapyr	91.6		P	40 - 150
Imidacloprid	93.8		P	40 - 150
Linuron	84.1		P	40 - 150
Mandestrobin	100		P	40 - 150
MCPP	98.4		P	40 - 150
Naproxen	94.5		P	40 - 150
Primidone	115		P	40 - 150
Pyraclostrobin	77.3		P	40 - 150
Thiamethoxam	98.2		P	40 - 150
Tolfenpyrad	44.4		P	30 - 150
Triclopyr	98.2		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P403456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	91.8		P	40 - 150
AMPA	79.2		P	40 - 160
Endothall	81.6		P	40 - 150
Glufosinate	94.4		P	40 - 160
Glyphosate	90.4		P	40 - 160
Sucralose	96.5		P	40 - 150

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P403486

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P403654

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P403658

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.9		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P403619

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P403455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273820	Barium	103	102	P/P	80 - 120
2273820	Calcium	105	107	P/P	80 - 120
2273820	Iron	108	109	P/P	80 - 120
2273820	Magnesium	108	110	P/P	80 - 120
2273820	Manganese	103	101	P/P	80 - 120
2273820	Potassium	102	102	P/P	80 - 120
2273820	Sodium	104	105	P/P	80 - 120
2273820	Strontium	101	101	P/P	80 - 120
2273820	Tin	104	98.7	P/P	80 - 120
2273820	Titanium	105	103	P/P	80 - 120
2273820	Vanadium	102	101	P/P	80 - 120
2273820	Zinc	102	99.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P403455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273820	Aluminum	101	102	P/P	80 - 120
2273820	Antimony	103	104	P/P	80 - 120
2273820	Arsenic	100	99.8	P/P	80 - 120
2273820	Beryllium	103	102	P/P	80 - 120
2273820	Boron	102	101	P/P	80 - 120
2273820	Cadmium	101	102	P/P	80 - 120
2273820	Chromium	101	102	P/P	80 - 120
2273820	Cobalt	98.4	98.5	P/P	80 - 120
2273820	Copper	100	101	P/P	80 - 120
2273820	Lead	102	102	P/P	80 - 120
2273820	Molybdenum	101	102	P/P	80 - 120
2273820	Nickel	100	101	P/P	80 - 120
2273820	Selenium	99.6	100	P/P	80 - 120
2273820	Silver	102	102	P/P	80 - 120
2273820	Thallium	106	107	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273474	Chloride	98.6		P	90 - 110
2273816	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P403562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273474	Sulfate	97.7		P	90 - 110
2273816	Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P403529

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273817	Ammonia-N	96.4	96.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P403662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275265	Kjeldahl Nitrogen	105	91.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P403445

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273740	NO2NO3-N	98.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P403467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273748	Total-P	106	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P403473

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273751	O-Phosphate-P	103	102	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
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

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	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	Metaxyl	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

Reference Method: EPA 8270E

Batch ID: P403591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275031	Aldrin	46.2	45.1	P/P	10 - 94.0
2275031	Alpha-BHC	84.1	83.7	P/P	71 - 108
2275031	Alpha-Chlordane	70.5	70.7	P/P	42 - 115
2275031	Beta-BHC	80.6	73.9	P/P	56 - 161
2275031	Beta-Cyfluthrin	107	122	P/P	46 - 190
2275031	Bifenthrin	73.9	78.7	P/P	19 - 126
2275031	Chlorothalonil	133	137	P/P	10 - 262
2275031	Cis-Nonachlor	45.0	46.8	P/P	44 - 112
2275031	Cypermethrin	84.0	94.5	P/P	40 - 178
2275031	Dacthal	80.5	80.3	P/P	60 - 119
2275031	DDD-p,p'	44.1	44.9	P/P	40 - 114

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P403591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275031	DDE-p,p'	73.8	74.0	P/P	22 - 125
2275031	DDT-p,p'	82.1	85.0	P/P	39 - 110
2275031	Delta-BHC	85.4	78.7	P/P	64 - 174
2275031	Deltamethrin	43.5	78.0	P/P	10 - 227
2275031	Dichlobenil	71.7	75.7	P/P	20 - 99.0
2275031	Dicofol	72.3	77.6	P/P	43 - 115
2275031	Dieldrin	72.6	71.4	P/P	31 - 131
2275031	Endosulfan I	75.5	73.6	P/P	52 - 110
2275031	Endosulfan II	48.2	46.0	F/F	53 - 127
2275031	Endosulfan Sulfate	53.5	56.4	P/P	44 - 135
2275031	Endrin	47.7	45.0	P/P	36 - 122
2275031	Endrin Aldehyde	43.6	50.5	P/P	23 - 115
2275031	Endrin Ketone	72.5	72.8	P/P	46 - 147
2275031	Esfenvalerate	82.8	89.6	P/P	25 - 217
2275031	Ethalfuralin	63.9	67.1	P/P	46 - 99.0
2275031	Fenpropathrin	76.4	84.6	P/P	42 - 121
2275031	Gamma-BHC	82.9	79.1	P/P	63 - 131
2275031	Gamma-Chlordane	69.1	69.2	P/P	40 - 108
2275031	Heptachlor	70.1	70.5	P/P	38 - 98.0
2275031	Heptachlor Epoxide	67.4	68.4	P/P	39 - 124
2275031	Hexachlorobenzene	71.0	73.1	P/P	37 - 96.0
2275031	Kepone	10.3	11.0	P/P	10 - 216
2275031	Lambda-Cyhalothrin	99.6	106	P/P	21 - 220
2275031	Methoprene	84.9	84.4	P/P	50 - 170
2275031	Methoxychlor	86.8	87.2	P/P	56 - 118
2275031	MGK-264	62.2	63.0	P/P	28 - 125
2275031	Mirex	54.8	55.3	P/P	10 - 203
2275031	Oxychlordane	68.4	72.8	P/P	50 - 170
2275031	Permethrin	89.0	99.6	P/P	42 - 173
2275031	Phenothrin	58.9	62.5	P/P	10 - 140
2275031	Piperonyl Butoxide	98.3	99.6	P/P	10 - 158
2275031	Prallethrin	61.1	60.4	P/P	19 - 119
2275031	Tau-Fluvalinate	80.2	89.8	P/P	27 - 164
2275031	Tetramethrin	62.2	62.9	P/P	16 - 130
2275031	Trans-Nonachlor	69.6	69.1	P/P	43 - 105
2275031	Triclosan Methyl	72.5	74.0	P/P	50 - 113
2275031	Trifluralin	67.9	68.5	P/P	48 - 98.0

Reference Method: EPA 8276

Batch ID: P403591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275352	Chlordane	85.7	83.2	P/P	47 - 128
2275352	Toxaphene	83.9	85.8	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P403442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273765	2,4-D	83.8	117	P/P	40 - 150
2273765	2,4,5-T	99.3	113	P/P	40 - 150
2273765	Acetaminophen	57.3	63.3	P/P	30 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P403442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273765	Acetamiprid	75.5	85.6	P/P	40 - 150
2273765	Afidopyropen	74.2	74.8	P/P	40 - 150
2273765	Benzovindiflupyr	82.2	106	P/P	40 - 150
2273765	Carbamazepine	73.8	81.9	P/P	40 - 150
2273765	Clothianidin	54.6	59.7	P/P	40 - 150
2273765	Dinotefuran	79.9	100	P/P	40 - 150
2273765	Diuron	64.9	81.1	P/P	40 - 150
2273765	Fenuron	87.0	103	P/P	40 - 150
2273765	Fluridone	87.6	104	P/P	40 - 150
2273765	Hydrocodone	99.1	118	P/P	40 - 150
2273765	Ibuprofen	58.7	76.1	P/P	40 - 150
2273765	Imazapyr	76.4	97.9	P/P	40 - 150
2273765	Imidacloprid	62.9	93.1	P/P	40 - 150
2273765	Linuron	78.9	98.2	P/P	40 - 150
2273765	Mandestrobin	89.7	108	P/P	40 - 150
2273765	MCCP	89.1	120	P/P	40 - 150
2273765	Naproxen	86.7	84.3	P/P	40 - 150
2273765	Primidone	46.1	47.3	P/P	40 - 150
2273765	Pyraclostrobin	70.1	83.2	P/P	40 - 150
2273765	Thiamethoxam	86.5	99.7	P/P	40 - 150
2273765	Tolfenpyrad	41.4	56.0	P/P	30 - 150
2273765	Triclopyr	87.8	106	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P403456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273765	Acesulfame K	134	139	P/P	40 - 150
2273765	AMPA	75.8	74.6	P/P	40 - 160
2273765	Endothall	92.6	98.4	P/P	40 - 150
2273765	Glufosinate	99.0	99.6	P/P	40 - 160
2273765	Glyphosate	90.7	97.0	P/P	40 - 160
2273765	Sucralose	97.8	104	P/P	40 - 150

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

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P403658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2275007	Fluoride	98.8	98.8	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P403619

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2273871	Organic Carbon	95.3	95.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P403484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273738	Turbidity	2.69	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P403455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273820	Barium	1.50	Spike	P	0 - 20
2273820	Calcium	1.05	Spike	P	0 - 20
2273820	Iron	0.955	Spike	P	0 - 20
2273820	Magnesium	0.777	Spike	P	0 - 20
2273820	Manganese	1.48	Spike	P	0 - 20
2273820	Potassium	0.0476	Spike	P	0 - 20
2273820	Sodium	0.459	Spike	P	0 - 20
2273820	Strontium	0.0289	Spike	P	0 - 20
2273820	Tin	4.81	Spike	P	0 - 20
2273820	Titanium	2.18	Spike	P	0 - 20
2273820	Vanadium	1.16	Spike	P	0 - 20
2273820	Zinc	2.00	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P403455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273820	Aluminum	0.794	Spike	P	0 - 20
2273820	Antimony	1.04	Spike	P	0 - 20
2273820	Arsenic	0.201	Spike	P	0 - 20
2273820	Beryllium	1.22	Spike	P	0 - 20
2273820	Boron	0.933	Spike	P	0 - 20
2273820	Cadmium	0.890	Spike	P	0 - 20
2273820	Chromium	0.723	Spike	P	0 - 20
2273820	Cobalt	0.114	Spike	P	0 - 20
2273820	Copper	0.691	Spike	P	0 - 20
2273820	Lead	0.606	Spike	P	0 - 20
2273820	Molybdenum	0.693	Spike	P	0 - 20
2273820	Nickel	0.930	Spike	P	0 - 20
2273820	Selenium	0.867	Spike	P	0 - 20
2273820	Silver	0.225	Spike	P	0 - 20
2273820	Thallium	0.102	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P403561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273474	Chloride	0.375	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P403562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273474	Sulfate	1.01	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P403529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273817	Ammonia-N	0.391	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P403662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275265	Kjeldahl Nitrogen	8.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P403445

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273740	NO2NO3-N	0.194	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P403467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273748	Total-P	1.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P403473

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273751	O-Phosphate-P	0.791	Spike	P	0 - 20

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

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	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
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

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	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	Terbutylazine	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
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

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	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: P403591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275031	Aldrin	2.32	Spike	P	0 - 30
2275031	Alpha-BHC	0.497	Spike	P	0 - 30
2275031	Alpha-Chlordane	0.310	Spike	P	0 - 30
2275031	Beta-BHC	8.79	Spike	P	0 - 30
2275031	Beta-Cyfluthrin	13.3	Spike	P	0 - 30
2275031	Bifenthrin	6.38	Spike	P	0 - 30
2275031	Chlorothalonil	2.60	Spike	P	0 - 50
2275031	Cis-Nonachlor	3.82	Spike	P	0 - 30
2275031	Cypermethrin	11.7	Spike	P	0 - 30
2275031	Dacthal	0.190	Spike	P	0 - 30
2275031	DDD-p,p'	1.79	Spike	P	0 - 30
2275031	DDE-p,p'	0.304	Spike	P	0 - 30
2275031	DDT-p,p'	3.45	Spike	P	0 - 30
2275031	Delta-BHC	8.15	Spike	P	0 - 30
2275031	Deltamethrin	56.7	Spike	F	0 - 30
2275031	Dichlobenil	5.39	Spike	P	0 - 30
2275031	Dicofol	7.17	Spike	P	0 - 30
2275031	Dieldrin	1.67	Spike	P	0 - 30
2275031	Endosulfan I	2.62	Spike	P	0 - 30
2275031	Endosulfan II	4.56	Spike	P	0 - 30
2275031	Endosulfan Sulfate	5.19	Spike	P	0 - 30
2275031	Endrin	5.82	Spike	P	0 - 30
2275031	Endrin Aldehyde	14.6	Spike	P	0 - 30
2275031	Endrin Ketone	0.311	Spike	P	0 - 30
2275031	Esfenvalerate	7.91	Spike	P	0 - 30
2275031	Ethalfuralin	4.87	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275031	Fenpropathrin	10.2	Spike	P	0 - 30
2275031	Gamma-BHC	4.72	Spike	P	0 - 30
2275031	Gamma-Chlordane	0.244	Spike	P	0 - 30
2275031	Heptachlor	0.645	Spike	P	0 - 30
2275031	Heptachlor Epoxide	1.60	Spike	P	0 - 30
2275031	Hexachlorobenzene	2.81	Spike	P	0 - 30
2275031	Kepone	6.76	Spike	P	0 - 30
2275031	Lambda-Cyhalothrin	6.45	Spike	P	0 - 30
2275031	Methoprene	0.605	Spike	P	0 - 30
2275031	Methoxychlor	0.492	Spike	P	0 - 30
2275031	MGK-264	1.21	Spike	P	0 - 30
2275031	Mirex	0.765	Spike	P	0 - 30
2275031	Oxychlordane	6.21	Spike	P	0 - 30
2275031	Permethrin	11.2	Spike	P	0 - 30
2275031	Phenothrin	6.07	Spike	P	0 - 30
2275031	Piperonyl Butoxide	1.35	Spike	P	0 - 30
2275031	Prallethrin	1.07	Spike	P	0 - 30
2275031	Tau-Fluvalinate	11.3	Spike	P	0 - 30
2275031	Tetramethrin	1.06	Spike	P	0 - 30
2275031	Trans-Nonachlor	0.768	Spike	P	0 - 30
2275031	Triclosan Methyl	2.10	Spike	P	0 - 30
2275031	Trifluralin	0.982	Spike	P	0 - 30
LFB	Aldrin	5.21	LCS	P	0 - 30
LFB	Alpha-BHC	2.38	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.94	LCS	P	0 - 30
LFB	Beta-BHC	6.71	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	4.43	LCS	P	0 - 30
LFB	Bifenthrin	1.23	LCS	P	0 - 30
LFB	Chlorothalonil	0.224	LCS	P	0 - 50
LFB	Cis-Nonachlor	3.20	LCS	P	0 - 30
LFB	Cypermethrin	1.82	LCS	P	0 - 30
LFB	Dacthal	3.81	LCS	P	0 - 30
LFB	DDD-p,p'	4.28	LCS	P	0 - 30
LFB	DDE-p,p'	6.08	LCS	P	0 - 30
LFB	DDT-p,p'	2.36	LCS	P	0 - 30
LFB	Delta-BHC	2.26	LCS	P	0 - 30
LFB	Deltamethrin	16.6	LCS	P	0 - 30
LFB	Dichlobenil	1.81	LCS	P	0 - 30
LFB	Dicofol	1.03	LCS	P	0 - 30
LFB	Dieldrin	5.54	LCS	P	0 - 30
LFB	Endosulfan I	7.94	LCS	P	0 - 30
LFB	Endosulfan II	3.71	LCS	P	0 - 30
LFB	Endosulfan Sulfate	9.76	LCS	P	0 - 30
LFB	Endrin	3.43	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.69	LCS	P	0 - 30
LFB	Endrin Ketone	0.0673	LCS	P	0 - 30
LFB	Esfenvalerate	2.93	LCS	P	0 - 30
LFB	Ethalfuralin	4.77	LCS	P	0 - 30
LFB	Fenpropathrin	0.937	LCS	P	0 - 30
LFB	Gamma-BHC	5.49	LCS	P	0 - 30
LFB	Gamma-Chlordane	5.18	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P403591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Heptachlor	3.81	LCS	P	0 - 30
LFB	Heptachlor Epoxide	4.62	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.28	LCS	P	0 - 30
LFB	Kepone	1.50	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	2.28	LCS	P	0 - 30
LFB	Methoprene	8.53	LCS	P	0 - 30
LFB	Methoxychlor	1.65	LCS	P	0 - 30
LFB	MGK-264	6.79	LCS	P	0 - 30
LFB	Mirex	2.04	LCS	P	0 - 30
LFB	Oxychlordane	11.3	LCS	P	0 - 30
LFB	Permethrin	0.192	LCS	P	0 - 30
LFB	Phenothrin	4.88	LCS	P	0 - 30
LFB	Piperonyl Butoxide	2.13	LCS	P	0 - 30
LFB	Prallethrin	0.00974	LCS	P	0 - 30
LFB	Tau-Fluvalinate	2.75	LCS	P	0 - 30
LFB	Tetramethrin	3.20	LCS	P	0 - 30
LFB	Trans-Nonachlor	3.10	LCS	P	0 - 30
LFB	Triclosan Methyl	7.18	LCS	P	0 - 30
LFB	Trifluralin	1.13	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P403591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275352	Chlordane	2.88	Spike	P	0 - 30
2275352	Toxaphene	2.28	Spike	P	0 - 30
LFB	Chlordane	1.92	LCS	P	0 - 30
LFB	Toxaphene	5.34	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P403442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273765	2,4-D	21.0	Spike	P	0 - 30
2273765	2,4,5-T	13.2	Spike	P	0 - 30
2273765	Acetaminophen	10.0	Spike	P	0 - 30
2273765	Acetamiprid	11.4	Spike	P	0 - 30
2273765	Afidopyropen	0.738	Spike	P	0 - 30
2273765	Bentazon	28.2	Spike	P	0 - 30
2273765	Benzovindiflupyr	23.6	Spike	P	0 - 30
2273765	Carbamazepine	10.4	Spike	P	0 - 30
2273765	Clothianidin	8.88	Spike	P	0 - 30
2273765	Dinotefuran	19.0	Spike	P	0 - 30
2273765	Diuron	22.1	Spike	P	0 - 30
2273765	Fenuron	16.5	Spike	P	0 - 30
2273765	Fluridone	16.6	Spike	P	0 - 30
2273765	Hydrocodone	17.2	Spike	P	0 - 30
2273765	Ibuprofen	25.8	Spike	P	0 - 30
2273765	Imazapyr	22.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P403442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273765	Imidacloprid	24.6	Spike	P	0 - 30
2273765	Linuron	21.8	Spike	P	0 - 30
2273765	Mandestrobin	18.6	Spike	P	0 - 30
2273765	MCPP	29.7	Spike	P	0 - 30
2273765	Naproxen	2.70	Spike	P	0 - 30
2273765	Primidone	2.54	Spike	P	0 - 30
2273765	Pyraclostrobin	17.1	Spike	P	0 - 30
2273765	Thiamethoxam	13.5	Spike	P	0 - 30
2273765	Tolfenpyrad	29.8	Spike	P	0 - 30
2273765	Triclopyr	18.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P403456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273765	Acesulfame K	3.59	Spike	P	0 - 30
2273765	AMPA	1.11	Spike	P	0 - 30
2273765	Endothall	6.07	Spike	P	0 - 30
2273765	Glufosinate	0.596	Spike	P	0 - 30
2273765	Glyphosate	5.79	Spike	P	0 - 30
2273765	Sucralose	5.69	Spike	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
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: SM 2120 B-2011
Batch ID: P403486

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273738	Color (true)	1.05	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P403654

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

Reference Method: SM 2320 B-2011
Batch ID: P403654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275007	Total Alkalinity	3.89	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P403987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2274022	TDS	3.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P403658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2275007	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P403619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2273871	Organic Carbon	0.0751	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2273763
Field Sample ID: G1WA0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	78.5	P	30 - 160

Lab Sample ID: 2273764
Field Sample ID: G1WA0087

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	87.3	P	30 - 160

Lab Sample ID: 2273765
Field Sample ID: G1WA0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	63.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Carbaryl-d7	88.5	P	30 - 160
EPA 8321B	Diuron-d6	70.5	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	30 - 160
EPA 8321B	Ibuprofen-d3	57.0	P	30 - 160
EPA 8321B	Primidone-d5	37.6	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Lab Sample ID: 2273766
Field Sample ID: G1WA0087

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Carbaryl-d7	80.5	P	30 - 160
EPA 8321B	Diuron-d6	84.6	P	30 - 160
EPA 8321B	Endothall-d6	98.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	87.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.7	P	30 - 160
EPA 8321B	Primidone-d5	55.6	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Lab Sample ID: 2273767
Field Sample ID: G1WA0091

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	43.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.4	P	30 - 160
EPA 8321B	Carbaryl-d7	73.8	P	30 - 160
EPA 8321B	Diuron-d6	71.4	P	30 - 160
EPA 8321B	Endothall-d6	88.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.6	P	30 - 160
EPA 8321B	Primidone-d5	31.2	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2273768

Field Sample ID: G1WA0075

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	51.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.8	P	30 - 160
EPA 8321B	Carbaryl-d7	78.8	P	30 - 160
EPA 8321B	Diuron-d6	82.9	P	30 - 160
EPA 8321B	Endothall-d6	93.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	87.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.9	P	30 - 160
EPA 8321B	Primidone-d5	31.2	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2273769

Field Sample ID: G1WA0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.1	P	30 - 160
EPA 8321B	Carbaryl-d7	86.4	P	30 - 160
EPA 8321B	Diuron-d6	83.7	P	30 - 160
EPA 8321B	Endothall-d6	90.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	87.6	P	30 - 160
EPA 8321B	Primidone-d5	52.6	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Lab Sample ID: 2273770

Field Sample ID: G1WA0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	71.7	P	29 - 123
EPA 8270E	Tetrachloro-m-xylene	58.0	P	24 - 97.0
EPA 8276	Decachlorobiphenyl	63.6	P	29 - 92.0
EPA 8276	PCNB	79.3	P	43 - 134

Lab Sample ID: 2273771

Field Sample ID: G1WA0087

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.6	P	29 - 123
EPA 8270E	Tetrachloro-m-xylene	57.8	P	24 - 97.0
EPA 8276	Decachlorobiphenyl	63.8	P	29 - 92.0
EPA 8276	PCNB	74.4	P	43 - 134

Lab Sample ID: 2273772

Field Sample ID: G1WA0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	65.9	P	20 - 200
EPA 8270E	Simazine-d10	101	P	73 - 135
EPA 8270E	Terbufos-d10	96.3	P	58 - 130

Quality Assurance Report Surrogates

Lab Sample ID: 2273773
Field Sample ID: G1WA0087

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	65.4	P	20 - 200
EPA 8270E	Simazine-d10	104	P	73 - 135
EPA 8270E	Terbufos-d10	99.5	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107671

Included Lab Sample IDs: 2273740, 2273741, 2273747, 2273748, 2273749

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110
NO2NO3-N	103	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107681

Included Lab Sample IDs: 2273742, 2273743, 2273750, 2273751, 2273752

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107683

Included Lab Sample IDs: 2273738, 2273739, 2273744, 2273745, 2273746

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

Reference Method: SM 2120 B-2011

Run ID: A107684

Included Lab Sample IDs: 2273738, 2273739, 2273744, 2273745, 2273746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	98.8	P/P	85 - 115
Color (true)	98.9	99.4	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A107690

Included Lab Sample IDs: 2273738, 2273739, 2273744, 2273745, 2273746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	99.9	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	99.6	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107700

Included Lab Sample IDs: 2273740, 2273741, 2273747, 2273748, 2273749

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	96.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107703

Included Lab Sample IDs: 2273774, 2273775, 2273776, 2273777, 2273778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	96.1	96.3	P/P	95 - 105
Barium	96.3	97.1	P/P	90 - 110
Calcium	101	103	P/P	95 - 105
Calcium	103	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107703

Included Lab Sample IDs: 2273774, 2273775, 2273776, 2273777, 2273778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	103	P/P	95 - 105
Iron	103	101	P/P	90 - 110
Magnesium	100	102	P/P	95 - 105
Magnesium	102	101	P/P	90 - 110
Manganese	100	103	P/P	90 - 110
Manganese	101	100	P/P	95 - 105
Potassium	101	99.4	P/P	90 - 110
Potassium	99.2	101	P/P	95 - 105
Sodium	101	102	P/P	95 - 105
Sodium	102	101	P/P	90 - 110
Strontium	100	99.5	P/P	95 - 105
Strontium	99.5	101	P/P	90 - 110
Tin	98.6	99.2	P/P	95 - 105
Tin	99.2	100	P/P	90 - 110
Titanium	98.3	100	P/P	90 - 110
Titanium	99.1	98.3	P/P	95 - 105
Vanadium	97.8	99.8	P/P	90 - 110
Vanadium	98.8	97.8	P/P	95 - 105
Zinc	97.6	98.8	P/P	90 - 110
Zinc	98.5	97.6	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107706

Included Lab Sample IDs: 2273748

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	98.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A107720

Included Lab Sample IDs: 2273765, 2273766, 2273767, 2273768, 2273769

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	66.1	80.1	P/P	60 - 160
Glufosinate	82.8	95.7	P/P	60 - 160
Glyphosate	83.3	87.8	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107725

Included Lab Sample IDs: 2273740, 2273741, 2273749

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	101	P/P	90 - 110
Total-P	99.6	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107731

Included Lab Sample IDs: 2273747

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	97.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107739

Included Lab Sample IDs: 2273740, 2273741, 2273748, 2273749

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

Reference Method: EPA 8321B

Run ID: A107746

Included Lab Sample IDs: 2273765, 2273766, 2273767, 2273768, 2273769

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	91.3	P/P	60 - 160
Endothall	89.9	79.5	P/P	60 - 160
Sucralose	102	103	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A107751

Included Lab Sample IDs: 2273740, 2273741, 2273747, 2273748, 2273749

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.6	P/P	90 - 110
Organic Carbon	97.6	97.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107758

Included Lab Sample IDs: 2273774, 2273775, 2273776, 2273777, 2273778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Aluminum	101	102	P/P	90 - 110
Antimony	100	100	P/P	90 - 110
Antimony	99.0	100	P/P	90 - 110
Arsenic	99.1	98.3	P/P	90 - 110
Arsenic	99.9	99.1	P/P	90 - 110
Beryllium	98.1	98.4	P/P	90 - 110
Beryllium	98.4	98.8	P/P	90 - 110
Boron	100	100	P/P	90 - 110
Boron	96.6	100	P/P	90 - 110
Cadmium	98.1	99.7	P/P	90 - 110
Cadmium	99.7	99.4	P/P	90 - 110
Chromium	97.9	98.5	P/P	90 - 110
Chromium	98.5	98.9	P/P	90 - 110
Cobalt	95.6	96.2	P/P	90 - 110
Cobalt	97.0	95.6	P/P	90 - 110
Copper	98.1	98.5	P/P	90 - 110
Copper	99.4	98.1	P/P	90 - 110
Lead	97.5	97.1	P/P	90 - 110
Lead	97.5	97.5	P/P	90 - 110
Molybdenum	97.9	98.4	P/P	90 - 110
Molybdenum	98.6	97.9	P/P	90 - 110
Nickel	98.4	98.3	P/P	90 - 110
Nickel	99.8	98.4	P/P	90 - 110
Selenium	97.9	98.3	P/P	90 - 110
Selenium	98.3	98.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107758

Included Lab Sample IDs: 2273774, 2273775, 2273776, 2273777, 2273778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	95.5	96.4	P/P	90 - 110
Silver	95.6	95.5	P/P	90 - 110
Thallium	100	101	P/P	90 - 110
Thallium	101	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A107760

Included Lab Sample IDs: 2273738, 2273739, 2273744, 2273745, 2273746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	104	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A107760

Included Lab Sample IDs: 2273738, 2273739, 2273744, 2273745, 2273746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	102	P/P	90 - 110
Fluoride	103	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A107780

Included Lab Sample IDs: 2273765, 2273766, 2273767, 2273768, 2273769

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	102	P/P	50 - 150
2,4-D	102	132	P/P	50 - 150
2,4,5-T	102	107	P/P	50 - 150
2,4,5-T	128	102	P/P	50 - 150
Acetaminophen	96.9	105	P/P	60 - 160
Acetaminophen	99.6	96.9	P/P	60 - 160
Acetamiprid	106	108	P/P	50 - 150
Acetamiprid	108	105	P/P	50 - 150
Afidopyropen	88.9	115	P/P	50 - 150
Afidopyropen	93.3	88.9	P/P	50 - 150
Bentazon	89.1	98.1	P/P	50 - 160
Bentazon	99.6	89.1	P/P	50 - 160
Benzovindiflupyr	106	111	P/P	50 - 150
Benzovindiflupyr	124	106	P/P	50 - 150
Carbamazepine	109	98.9	P/P	60 - 150
Carbamazepine	98.9	112	P/P	60 - 150
Clothianidin	115	121	P/P	60 - 150
Clothianidin	121	134	P/P	60 - 150
Dinotefuran	110	111	P/P	50 - 150
Dinotefuran	111	115	P/P	50 - 150
Diuron	90.9	100	P/P	60 - 160
Diuron	97.0	90.9	P/P	60 - 160
Fenuron	100	96.7	P/P	60 - 150
Fenuron	96.7	99.5	P/P	60 - 150
Fluridone	103	104	P/P	60 - 160

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8321B

Run ID: A107780

Included Lab Sample IDs: 2273765, 2273766, 2273767, 2273768, 2273769

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	104	106	P/P	60 - 160
Hydrocodone	105	96.7	P/P	60 - 150
Hydrocodone	96.7	93.2	P/P	60 - 150
Ibuprofen	107	98.3	P/P	50 - 160
Ibuprofen	108	107	P/P	50 - 160
Imazapyr	100	95.1	P/P	50 - 150
Imazapyr	95.1	108	P/P	50 - 150
Imidacloprid	109	87.4	P/P	60 - 150
Imidacloprid	87.4	127	P/P	60 - 150
Linuron	94.1	116	P/P	60 - 150
Linuron	96.9	94.1	P/P	60 - 150
Mandestrobin	104	110	P/P	50 - 150
Mandestrobin	110	118	P/P	50 - 150
MCPP	103	96.4	P/P	50 - 150
MCPP	96.4	94.6	P/P	50 - 150
Naproxen	87.6	60.5	P/P	50 - 160
Naproxen	94.0	87.6	P/P	50 - 160
Primidone	102	130	P/P	60 - 150
Primidone	130	110	P/P	60 - 150
Pyraclostrobin	101	101	P/P	60 - 150
Pyraclostrobin	105	101	P/P	60 - 150
Thiamethoxam	118	114	P/P	50 - 150
Thiamethoxam	119	118	P/P	50 - 150
Tolfenpyrad	106	79.4	P/P	60 - 150
Tolfenpyrad	79.4	112	P/P	60 - 150
Triclopyr	96.8	102	P/P	50 - 150
Triclopyr	98.6	96.8	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107785

Included Lab Sample IDs: 2273776

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

Reference Method: EPA 8321B

Run ID: A107792

Included Lab Sample IDs: 2273763, 2273764

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	100	104	P/P	60 - 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	129	133	P/P	50 - 160
Carbaryl	104	105	P/P	60 - 150
Carbofuran	104	115	P/P	50 - 150
Methiocarb	114	117	P/P	50 - 150
Methomyl	102	97.6	P/P	50 - 150
Oxamyl	104	101	P/P	50 - 150
Propoxur	111	110	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107796

Included Lab Sample IDs: 2273747

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	106	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A107844

Included Lab Sample IDs: 2273770, 2273771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	99.8		P	80 - 120
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	91.9		P	80 - 120
Beta-Cyfluthrin	101		P	80 - 120
Bifenthrin	102		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	103		P	80 - 120
Cypermethrin	103		P	80 - 120
Dacthal	98.5		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	94.9		P	80 - 120
Deltamethrin	99.9		P	80 - 120
Dichlobenil	98.8		P	80 - 120
Dicofol	103		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	98.6		P	80 - 120
Endosulfan II	105		P	80 - 120
Endosulfan Sulfate	95.3		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	123*		F	80 - 120
Endrin Ketone	103		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	111		P	80 - 120
Gamma-BHC	98.0		P	80 - 120
Gamma-Chlordane	102		P	80 - 120
Heptachlor	103		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Kepone	93.0		P	80 - 120
Lambda-Cyhalothrin	102		P	80 - 120
Methoprene	95.5		P	80 - 120
Methoxychlor	99.9		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	101		P	80 - 120
Oxychlordane	103		P	80 - 120
Permethrin	100		P	80 - 120
Phenothrin	104		P	80 - 120
Piperonyl Butoxide	103		P	80 - 120
Prallethrin	86.3		P	80 - 120
Tau-Fluvalinate	99.5		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A107844

Included Lab Sample IDs: 2273770, 2273771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	102		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	96.5		P	80 - 120

Reference Method: EPA 8270E

Run ID: A107889

Included Lab Sample IDs: 2273772, 2273773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	106		P	80 - 120
Alachlor	106		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	106		P	80 - 120
Azoxystrobin	99.1		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	104		P	80 - 120
Caffeine	93.6		P	80 - 120
Carbophenothion	107		P	80 - 120
Carfentrazone Ethyl	109		P	80 - 120
Chlorpyrifos Ethyl	110		P	80 - 120
Chlorpyrifos Methyl	105		P	80 - 120
Cyanazine	92.7		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	101		P	80 - 120
Dimethenamid	106		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	97.9		P	80 - 120
EPTC	104		P	80 - 120
Ethion	104		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	101		P	80 - 120
Fenbuconazole	108		P	80 - 120
Fipronil	97.9		P	80 - 120
Fipronil Desulfinyl	109		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	107		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	105		P	80 - 120
Flumioxazin	97.3		P	80 - 120
Flutolanil	105		P	80 - 120
Fluxapyroxad	105		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	99.2		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	105		P	80 - 120
Malathion	99.2		P	80 - 120
Metalaxyl	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A107889

Included Lab Sample IDs: 2273772, 2273773

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metolachlor	108		P	80 - 120
Metribuzin	117		P	80 - 120
Mevinphos	95.8		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	99.7		P	80 - 120
Norflurazon	113		P	80 - 120
Oxadiazon	107		P	80 - 120
Oxyfluorfen	96.6		P	80 - 120
Parathion Ethyl	96.8		P	80 - 120
Parathion Methyl	98.9		P	80 - 120
Pendimethalin	101		P	80 - 120
Phorate	108		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	103		P	80 - 120
Propiconazole	116		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	99.1		P	80 - 120
Sulfentrazone	107		P	80 - 120
Tebuconazole	106		P	80 - 120
Terbufos	101		P	80 - 120
Terbuthylazine	103		P	80 - 120

Reference Method: EPA 8276

Run ID: A107955

Included Lab Sample IDs: 2273770, 2273771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.9		P	80 - 120
Toxaphene	101		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						2.69	
EPA 200.7 Rev. 4.4	Barium	103		103	102			1.50
	Calcium	107		105	107			1.05
	Iron	108		108	109			0.955
	Magnesium	109		108	110			0.777
	Manganese	104		103	101			1.48
	Potassium	102		102	102			0.0476
	Sodium	105		104	105			0.459
	Strontium	101		101	101			0.0289
	Tin	102		104	98.7			4.81
	Titanium	103		105	103			2.18
	Vanadium	101		102	101			1.16
	Zinc	99.3		102	99.6			2.00
EPA 200.8 Rev. 5.4	Aluminum	102		101	102			0.794
	Antimony	103		103	104			1.04
	Arsenic	102		100	99.8			0.201
	Beryllium	101		103	102			1.22
	Boron	100		102	101			0.933
	Cadmium	99.9		101	102			0.890
	Chromium	99.8		101	102			0.723
	Cobalt	101		98.4	98.5			0.114
	Copper	102		100	101			0.691
	Lead	101		102	102			0.606
	Molybdenum	101		101	102			0.693
	Nickel	103		100	101			0.930
	Selenium	101		99.6	100			0.867
	Silver	103		102	102			0.225
	Thallium	104		106	107			0.102
EPA 300.0 Rev. 2.1	Chloride	98.0		98.6	99.4		0.375	
	Sulfate	98.4		97.7	99.0		1.01	
EPA 350.1 Rev. 2.0	Ammonia-N	95.6		96.4	96.8			0.391
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103						
	Kjeldahl Nitrogen	98.5		105	91.7			8.06
EPA 353.2 Rev. 2.0	NO2NO3-N	103		98.0				0.194
EPA 365.1 Rev. 2.0	Total-P	105		106	108			1.35
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		103	102			0.791
EPA 8270E	Acetochlor	104	110	97.3	108	5.64		10.1
	Alachlor	103	113	93.0	102	9.09		8.79
	Aldrin	90.7	86.0	46.2	45.1	5.21		2.32
	Alpha-BHC	90.4	88.3	84.1	83.7	2.38		0.497
	Alpha-Chlordane	97.1	90.6	70.5	70.7	6.94		0.310
	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	99.4	93.0	80.6	73.9	6.71		8.79
	Beta-Cyfluthrin	106	110	107	122	4.43		13.3
	Bifenthrin	93.2	92.1	73.9	78.7	1.23		6.38
	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
	Carfentrazone Ethyl	125	133	94.2	104	6.13		9.43

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Chlorothalonil	95.7	95.4	133	137	0.224	2.60
	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	84.6	81.9	45.0	46.8	3.20	3.82
	Cyanazine	167	171	96.3	100	2.21	3.83
	Cypermethrin	95.3	97.0	84.0	94.5	1.82	11.7
	Dacthal	99.4	95.7	80.5	80.3	3.81	0.190
	DDD-p,p'	85.0	81.5	44.1	44.9	4.28	1.79
	DDE-p,p'	97.8	92.0	73.8	74.0	6.08	0.304
	DDT-p,p'	99.7	97.4	82.1	85.0	2.36	3.45
	Delta-BHC	104	101	85.4	78.7	2.26	8.15
	Deltamethrin	90.7	107	43.5	78.0	16.6	56.7
	Demeton	82.0	85.0	77.6	94.3	3.64	19.4
	Diazinon	119	108	97.3	111	9.86	13.5
	Dichlobenil	86.4	88.0	71.7	75.7	1.81	5.39
	Dicofol	81.7	82.6	72.3	77.6	1.03	7.17
	Dieldrin	103	97.1	72.6	71.4	5.54	1.67
	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	96.7	89.3	75.5	73.6	7.94	2.62
	Endosulfan II	85.7	82.6	48.2	46.0	3.71	4.56
	Endosulfan Sulfate	73.3	80.8	53.5	56.4	9.76	5.19
	Endrin	83.5	80.6	47.7	45.0	3.43	5.82
	Endrin Aldehyde	79.0	84.5	43.6	50.5	6.69	14.6
	Endrin Ketone	87.0	87.0	72.5	72.8	0.0673	0.311
	EPTC	34.6	46.7	39.0	38.7	29.5	0.841
	Esfenvalerate	97.6	101	82.8	89.6	2.93	7.91
	Ethalfuralin	90.5	86.3	63.9	67.1	4.77	4.87
	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	90.5	91.3	76.4	84.6	0.937	10.2
	Fipronil	121	121	92.5	98.4	0.110	6.15
	Fipronil Desulfanyl	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	97.2	92.0	82.9	79.1	5.49	4.72
	Gamma-Chlordane	95.8	90.9	69.1	69.2	5.18	0.244
	Heptachlor	94.3	90.8	70.1	70.5	3.81	0.645
	Heptachlor Epoxide	97.5	93.1	67.4	68.4	4.62	1.60
	Hexachlorobenzene	93.7	91.6	71.0	73.1	2.28	2.81
	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
	Kepone	28.4	28.0	10.3	11.0	1.50	6.76

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Lambda-Cyhalothrin	93.7	95.9	99.6	106	2.28	6.45
	Malathion	88.5	92.1	91.2	105	4.07	14.3
	Metalaxyl	104	116	89.5	94.8	10.7	5.69
	Methoprene	101	93.2	84.9	84.4	8.53	0.605
	Methoxychlor	93.8	92.2	86.8	87.2	1.65	0.492
	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	104	97.3	62.2	63.0	6.79	1.21
	Mirex	84.7	83.0	55.3	54.8	2.04	0.765
	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	95.5	85.3	72.8	68.4	11.3	6.21
	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	95.5	95.7	99.6	89.0	0.192	11.2
	Phenothrin	93.9	98.6	62.5	58.9	4.88	6.07
	Phorate	64.7	64.3	69.7	82.9	0.620	17.3
	Piperonyl Butoxide	90.7	88.8	99.6	98.3	2.13	1.35
	Prallethrin	92.3	92.3	60.4	61.1	0.0097	1.07
	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	98.0	101	89.8	80.2	2.75	11.3
	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	91.2	88.3	62.9	62.2	3.20	1.06
	Trans-Nonachlor	94.9	92.0	69.1	69.6	3.10	0.768
	Triclosan Methyl	101	94.4	74.0	72.5	7.18	2.10
	Trifluralin	87.8	86.8	68.5	67.9	1.13	0.982
EPA 8276	Chlordane	81.2	79.6	85.7	83.2	1.92	2.88
	Toxaphene	78.1	74.0	83.9	85.8	5.34	2.28
EPA 8321B	2,4-D	110		83.8	117		21.0
	2,4,5-T	104		99.3	113		13.2
	3-Hydroxycarbofuran	82.6		93.3	91.4		1.98
	Acesulfame K	91.8		134	139		3.59
	Acetaminophen	80.1		57.3	63.3		10.0
	Acetamiprid	95.3		75.5	85.6		11.4
	Afidopyropen	79.1		74.2	74.8		0.738
	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
	AMPA	79.2		75.8	74.6		1.11

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Bentazon	124				28.2
	Benzovindiflupyr	86.9	82.2	106		23.6
	Carbamazepine	76.2	73.8	81.9		10.4
	Carbaryl	85.0	88.6	89.8		1.40
	Carbofuran	86.1	90.5	96.5		6.46
	Clothianidin	99.5	54.6	59.7		8.88
	Dinotefuran	94.3	79.9	100		19.0
	Diuron	77.1	64.9	81.1		22.1
	Endothall	81.6	92.6	98.4		6.07
	Fenuron	101	87.0	103		16.5
	Fluridone	99.1	87.6	104		16.6
	Glufosinate	94.4	99.0	99.6		0.596
	Glyphosate	90.4	90.7	97.0		5.79
	Hydrocodone	97.9	99.1	118		17.2
	Ibuprofen	74.6	58.7	76.1		25.8
	Imazapyr	91.6	76.4	97.9		22.9
	Imidacloprid	93.8	62.9	93.1		24.6
	Linuron	84.1	78.9	98.2		21.8
	Mandestrobin	100	89.7	108		18.6
	MCPP	98.4	89.1	120		29.7
	Methiocarb	91.2	99.4	97.6		1.87
	Methomyl	88.8	97.5	90.1		7.90
	Naproxen	94.5	86.7	84.3		2.70
	Oxamyl	94.4	106	97.1		8.48
	Primidone	115	46.1	47.3		2.54
	Propoxur	93.6	88.5	96.0		8.04
	Pyraclostrobin	77.3	70.1	83.2		17.1
	Sucralose	96.5	97.8	104		5.69
	Thiamethoxam	98.2	86.5	99.7		13.5
	Tolfenpyrad	44.4	41.4	56.0		29.8
	Triclopyr	98.2	87.8	106		18.5
SM 2120 B-2011	Color (true)	101			1.05	
SM 2320 B-2011	Total Alkalinity	103			3.89	
SM 2540 C-2011	TDS				3.41	
SM 4500 F-C-2011	Fluoride	99.9	98.8	98.8		0.0
SM 5310 B-2011	Organic Carbon	97.2	95.3	95.2		0.0751

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2273738, 2273739, 2273744, 2273745, 2273746
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2273774, 2273775, 2273776, 2273777, 2273778
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2273774, 2273775, 2273776, 2273777, 2273778
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2273738, 2273739, 2273744, 2273745, 2273746
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2273738, 2273739, 2273744, 2273745, 2273746
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2273740, 2273741, 2273747, 2273748, 2273749
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2273740, 2273741, 2273747, 2273748, 2273749

Reference Method Descriptions

Method	Description	Associated Samples
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2273740, 2273741, 2273747, 2273748, 2273749
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2273740, 2273741, 2273747, 2273748, 2273749
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2273742, 2273743, 2273750, 2273751, 2273752
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2273770, 2273771
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2273772, 2273773
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2273770, 2273771
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2273763, 2273764
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2273765, 2273766, 2273767, 2273768, 2273769
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2273738, 2273739, 2273744, 2273745, 2273746
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2273738, 2273739, 2273744, 2273745, 2273746
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2273774, 2273775, 2273776, 2273777, 2273778
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2273738, 2273739, 2273744, 2273745, 2273746
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2273738, 2273739, 2273744, 2273745, 2273746
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2273738, 2273739, 2273744, 2273745, 2273746
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2273740, 2273741, 2273747, 2273748, 2273749

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	09/07/2021			09/08/2021 16:49	Sarah A Nixon	2273738, 2273739, 2273744, 2273745, 2273746
EPA 200.7 Rev. 4.4	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/09/2021 12:22	Josef B Mick	2273774
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/09/2021 12:30	Josef B Mick	2273775
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/09/2021 12:38	Josef B Mick	2273776
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/09/2021 12:46	Josef B Mick	2273777
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/09/2021 13:25	Josef B Mick	2273778
EPA 200.8 Rev. 5.4	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/10/2021 14:48	Alexander Thompson	2273774
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/10/2021 14:58	Alexander Thompson	2273775
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/10/2021 16:05	Alexander Thompson	2273776
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/10/2021 16:15	Alexander Thompson	2273777
	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/10/2021 16:25	Alexander Thompson	2273778
EPA 300.0 Rev. 2.1	09/07/2021	09/08/2021 13:45	Elliott D. Healy	09/14/2021 23:44	Alexander Thompson	2273776
	09/07/2021			09/09/2021 16:16	Roberta Tatti	2273738
	09/07/2021			09/09/2021 16:28	Roberta Tatti	2273739
	09/07/2021			09/09/2021 16:40	Roberta Tatti	2273744
	09/07/2021			09/09/2021 16:53	Roberta Tatti	2273745
EPA 350.1 Rev. 2.0	09/07/2021			09/09/2021 17:29	Roberta Tatti	2273746
	09/07/2021			09/09/2021 11:30	Ping Hua	2273740
	09/07/2021			09/09/2021 11:31	Ping Hua	2273741
	09/07/2021			09/09/2021 11:32	Ping Hua	2273747
	09/07/2021			09/09/2021 11:34	Ping Hua	2273748
EPA 351.2 Rev. 2.0	09/07/2021			09/09/2021 11:35	Ping Hua	2273749
	09/07/2021	09/09/2021 12:30	Benjamin T. Nordmann	09/10/2021 12:18	Virginia P. Brown	2273740
	09/07/2021	09/09/2021 12:30	Benjamin T. Nordmann	09/10/2021 12:20	Virginia P. Brown	2273741
	09/07/2021	09/09/2021 12:30	Benjamin T. Nordmann	09/10/2021 12:27	Virginia P. Brown	2273748
	09/07/2021	09/09/2021 12:30	Benjamin T. Nordmann	09/10/2021 12:28	Virginia P. Brown	2273749
EPA 353.2 Rev. 2.0	09/07/2021	09/14/2021 08:30	Benjamin T. Nordmann	09/15/2021 09:59	Alexandra J Mattheus	2273747
	09/07/2021			09/08/2021 09:54	Beverly Y. Sanders	2273740
	09/07/2021			09/08/2021 10:08	Beverly Y. Sanders	2273748
	09/07/2021			09/08/2021 10:10	Beverly Y. Sanders	2273749
	09/07/2021			09/08/2021 10:23	Beverly Y. Sanders	2273741
EPA 365.1 Rev. 2.0	09/07/2021			09/08/2021 10:24	Beverly Y. Sanders	2273747
	09/07/2021	09/08/2021 14:30	Simonne.V. Calhoun	09/09/2021 11:14	Shengyu Ding	2273740
	09/07/2021	09/08/2021 14:30	Simonne.V. Calhoun	09/09/2021 11:15	Shengyu Ding	2273741
	09/07/2021	09/08/2021 14:30	Simonne.V. Calhoun	09/09/2021 11:19	Shengyu Ding	2273749
	09/07/2021	09/08/2021 14:30	Simonne.V. Calhoun	09/09/2021 16:32	Shengyu Ding	2273748
EPA 365.1 Rev. 2.0 dissolved	09/07/2021	09/08/2021 14:30	Simonne.V. Calhoun	09/10/2021 13:03	Lipi Saha	2273747
	09/07/2021			09/08/2021 15:27	James L Waggeberby	2273751
	09/07/2021			09/08/2021 15:30	James L Waggeberby	2273742

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	09/07/2021			09/08/2021 15:31	James L Waggeberby	2273743
	09/07/2021			09/08/2021 15:32	James L Waggeberby	2273750, 2273752
EPA 8270E	09/07/2021	09/13/2021 08:30	Rasheda Ghaffari	09/16/2021 21:31	Arthur Maknenko	2273770
	09/07/2021	09/13/2021 08:30	Rasheda Ghaffari	09/16/2021 22:02	Arthur Maknenko	2273771
	09/07/2021	09/14/2021 08:30	Rasheda Ghaffari	09/16/2021 19:30	Vandana T. Nagar	2273772
	09/07/2021	09/14/2021 08:30	Rasheda Ghaffari	09/16/2021 19:56	Vandana T. Nagar	2273773
	09/07/2021	09/14/2021 08:30	Rasheda Ghaffari	09/16/2021 20:21	Vandana T. Nagar	2273772
EPA 8276	09/07/2021	09/13/2021 08:30	Rasheda Ghaffari	09/22/2021 11:41	Julie Wi	2273770
	09/07/2021	09/13/2021 08:30	Rasheda Ghaffari	09/22/2021 12:37	Julie Wi	2273771
EPA 8321B	09/07/2021	09/09/2021 09:00	Hoor Shaik	09/11/2021 01:51	Juyoung Kim	2273765
	09/07/2021	09/09/2021 09:00	Hoor Shaik	09/11/2021 02:26	Juyoung Kim	2273766
	09/07/2021	09/09/2021 09:00	Hoor Shaik	09/11/2021 03:01	Juyoung Kim	2273767
	09/07/2021	09/09/2021 09:00	Hoor Shaik	09/11/2021 03:35	Juyoung Kim	2273768
	09/07/2021	09/09/2021 09:00	Hoor Shaik	09/11/2021 04:44	Juyoung Kim	2273769
	09/07/2021	09/09/2021 09:00	Hoor Shaik	09/14/2021 18:22	Juyoung Kim	2273765
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/09/2021 10:21	Juyoung Kim	2273765
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/09/2021 10:31	Juyoung Kim	2273766
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/09/2021 10:42	Juyoung Kim	2273767
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/09/2021 10:53	Juyoung Kim	2273768
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/09/2021 11:04	Juyoung Kim	2273769
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/10/2021 18:33	Juyoung Kim	2273765
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/10/2021 18:47	Juyoung Kim	2273766
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/10/2021 19:02	Juyoung Kim	2273767
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/10/2021 19:17	Juyoung Kim	2273768
	09/07/2021	09/09/2021 10:00	Juyoung Kim	09/10/2021 19:32	Juyoung Kim	2273769
	09/07/2021	09/14/2021 09:00	Hoor Shaik	09/14/2021 20:41	Juyoung Kim	2273763
	09/07/2021	09/14/2021 09:00	Hoor Shaik	09/14/2021 21:15	Juyoung Kim	2273764
SM 2120 B-2011	09/07/2021			09/08/2021 17:29	Madeline Gruver	2273738
	09/07/2021			09/08/2021 17:30	Madeline Gruver	2273739
	09/07/2021			09/08/2021 17:31	Madeline Gruver	2273745
	09/07/2021			09/08/2021 17:32	Madeline Gruver	2273746
	09/07/2021			09/08/2021 18:18	Madeline Gruver	2273744
SM 2320 B-2011	09/07/2021			09/13/2021 19:53	Dale L. Simmons	2273738
	09/07/2021			09/13/2021 20:06	Dale L. Simmons	2273739
	09/07/2021			09/13/2021 20:54	Dale L. Simmons	2273744
	09/07/2021			09/13/2021 21:06	Dale L. Simmons	2273745
	09/07/2021			09/13/2021 21:18	Dale L. Simmons	2273746
SM 2340B	09/07/2021			09/09/2021 12:22	Josef B Mick	2273774
	09/07/2021			09/09/2021 12:30	Josef B Mick	2273775
	09/07/2021			09/09/2021 12:38	Josef B Mick	2273776

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2340B	09/07/2021			09/09/2021 12:46	Josef B Mick	2273777
	09/07/2021			09/09/2021 13:25	Josef B Mick	2273778
SM 2540 C-2011	09/07/2021			09/13/2021 14:36	Yijie Li	2273738, 2273739, 2273744, 2273745, 2273746
SM 2540 D-2011	09/07/2021			09/13/2021 14:36	Yijie Li	2273738, 2273739, 2273744, 2273745, 2273746
SM 4500 F-C-2011	09/07/2021			09/13/2021 19:53	Dale L. Simmons	2273738
	09/07/2021			09/13/2021 20:06	Dale L. Simmons	2273739
	09/07/2021			09/13/2021 20:54	Dale L. Simmons	2273744
	09/07/2021			09/13/2021 21:06	Dale L. Simmons	2273745
	09/07/2021			09/13/2021 21:18	Dale L. Simmons	2273746
SM 5310 B-2011	09/07/2021			09/10/2021 17:16	Madeline Gruver	2273749
	09/07/2021			09/10/2021 18:06	Madeline Gruver	2273740
	09/07/2021			09/10/2021 18:19	Madeline Gruver	2273741
	09/07/2021			09/10/2021 19:00	Madeline Gruver	2273747
	09/07/2021			09/10/2021 19:13	Madeline Gruver	2273748