

Chemical Analysis Report

WAS-SECT-2019-07-24-01

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

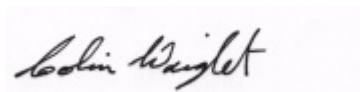
Event Description: **G1 Streams**
Request ID: **RQ-2019-07-22-11**
Customer: **WAS-SECT**
Project ID: **SMP**

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

Date Certified: 21-AUG-2019 08:54

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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: Caney Creek Downstream of 158A

Collection Date/Time: 07/24/2019 09:00

Field ID: G1WA0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105821	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P367859	
	EPA 300.0 Rev. 2.1	Chloride	8.1		mg Cl/L	P367959	
		Sulfate	1.5		mg SO4/L	P367961	
	SM 2120 B	Color (true)	140		PCU	P368025	
	SM 2320 B-97	Total Alkalinity	51		mg CaCO3/L	P368233	
	SM 2540 C-97	TDS	99		mg/L	P368347	
	SM 2540 D-97	TSS	14		mg/L	P368004	
	SM 4500 F-C-97	Fluoride	0.069	I	mg F/L	P368236	
2105822	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P368488	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P368086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.69		mg N/L	P367989	
	EPA 365.1 Rev. 2.0	Total-P	1.4		mg P/L	P367985	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P368052	
2105823	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	1.2		mg P/L	P367846	
2105846	EPA 8321B	Aldicarb	0.020	U	ug/L	P367818	
		Aldicarb Sulfone	0.0020	U	ug/L	P367818	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P367818	RPD
		Carbaryl	0.0020	U	ug/L	P367818	
		Carbofuran	0.0020	U	ug/L	P367818	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P367818	
		Methiocarb	0.0020	U	ug/L	P367818	
		Methomyl	0.0020	U	ug/L	P367818	
		Oxamyl	0.0020	U	ug/L	P367818	
		Propoxur	0.0020	U	ug/L	P367818	
2105847		2,4-D	1.3		ug/L	P367818	
		Acesulfame K**	0.10	U	ug/L	P367853	
		AMPA**	0.10	U	ug/L	P367853	
		Sucralose**	0.026	I	ug/L	P367853	
		Acetaminophen**	0.0080	U	ug/L	P367818	
		Endothall**	0.25	U	ug/L	P367853	
		Acetamiprid**	0.0020	UJ	ug/L	P367818	
		Glufosinate**	0.10	U	ug/L	P367853	
		Glyphosate**	0.10	I	ug/L	P367853	
		Afidopyropen**	0.0020	UJ	ug/L	P367818	
		Bentazon	8.0E-04	U	ug/L	P367818	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P367818	
		Carbamazepine**	0.0016	I	ug/L	P367818	
		Clothianidin**	0.0020	UJ	ug/L	P367818	
		Dinotefuran**	0.0020	UJ	ug/L	P367818	
		Diuron	0.0020	U	ug/L	P367818	
		Fenuron	0.016	U	ug/L	P367818	
		Fluridone**	0.012		ug/L	P367818	
		Imazapyr**	0.0045	I	ug/L	P367818	

Field ID: G1WA0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105847	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P367818	
		Ibuprofen**	0.020	U	ug/L	P367818	
		Imidacloprid	0.0020	U	ug/L	P367818	MS
		Linuron	0.0040	U	ug/L	P367818	
		Mandestrobin**	0.0020	UJ	ug/L	P367818	
		MCP	0.0020	U	ug/L	P367818	MS
		Naproxen**	0.0080	U	ug/L	P367818	
		Primidone**	0.0040	U	ug/L	P367818	
		Pyraclostrobin**	0.0020	U	ug/L	P367818	
		Thiamethoxam**	0.0020	UJ	ug/L	P367818	MS
		Tolfenpyrad**	0.0020	UJ	ug/L	P367818	
		Triclopyr**	0.0040	U	ug/L	P367818	MS
2105852	EPA 8270E	Aldrin	4.2	U	ng/L	P368103	
		Alpha-BHC	2.1	U	ng/L	P368103	
		Alpha-Chlordane	1.0	U	ng/L	P368103	
		Beta-BHC	10	U	ng/L	P368103	
		Bifenthrin**	4.2	U	ng/L	P368103	
		Delta-BHC	8.3	U	ng/L	P368103	
		Gamma-BHC	8.3	U	ng/L	P368103	
		Carbophenothion	10	U	ng/L	P368103	
		Chlorothalonil	2.1	U	ng/L	P368103	
		Cis-Nonachlor**	1.0	U	ng/L	P368103	
		Cypermethrin	21	U	ng/L	P368103	
		DDD-p,p'	6.2	U	ng/L	P368103	
		DDE-p,p'	6.2	U	ng/L	P368103	
		DDT-p,p'	7.3	U	ng/L	P368103	
		Dicofol	31	U	ng/L	P368103	
		Dieldrin	4.2	U	ng/L	P368103	
		Endosulfan I	4.2	U	ng/L	P368103	
		Endosulfan II	4.2	U	ng/L	P368103	
		Endosulfan Sulfate	2.1	U	ng/L	P368103	
		Endrin	2.1	U	ng/L	P368103	
		Endrin Aldehyde	2.1	U	ng/L	P368103	
		Endrin Ketone	2.1	U	ng/L	P368103	
		Ethalfuralin**	3.1	U	ng/L	P368103	
		Gamma-Chlordane	1.0	U	ng/L	P368103	
		Heptachlor	1.6	U	ng/L	P368103	
		Heptachlor Epoxide	2.1	U	ng/L	P368103	
		Hexachlorobenzene	2.1	U	ng/L	P368103	
		Methoxychlor	4.2	U	ng/L	P368103	
		Mirex	2.1	U	ng/L	P368103	
		Permethrin	10	U	ng/L	P368103	
		Trans-Nonachlor**	1.0	U	ng/L	P368103	
		Trifluralin	2.6	U	ng/L	P368103	
	EPA 8276	Chlordane	5.2	U	ng/L	P368103	

Field ID: G1WA0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105852	EPA 8276	Toxaphene	31	U	ng/L	P368103	
2105853	EPA 8270E	Acetochlor	0.25	U	ng/L	P367888	
		Alachlor	0.25	U	ng/L	P367888	
		Ametryn	0.61	U	ng/L	P367888	
		Atrazine	0.49	I	ng/L	P367888	
		Atrazine Desethyl	1.5	UJ	ng/L	P367888	MS, RPD
		Azinphos Methyl	5.1	U	ng/L	P367888	
		Bromacil	0.51	U	ng/L	P367888	
		Butylate	0.41	U	ng/L	P367888	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P367888	
		Chlorpyrifos Methyl	0.10	U	ng/L	P367888	
		Cyanazine	3.3	UJ	ng/L	P367888	RPD
		Demeton	7.1	UJ	ng/L	P367888	RPD
		Diazinon	0.13	U	ng/L	P367888	
		Dimethenamid**	0.10	U	ng/L	P367888	
		Disulfoton	0.51	UJ	ng/L	P367888	LCS, RPD
		Dithiopyr**	0.10	U	ng/L	P367888	
		EPTC	1.3	U	ng/L	P367888	
		Ethion	0.15	UJ	ng/L	P367888	RPD
		Ethoprop	0.10	U	ng/L	P367888	
		Fenamiphos	0.51	U	ng/L	P367888	
		Fipronil	0.25	U	ng/L	P367888	
		Fipronil Desulfinyl**	0.13	U	ng/L	P367888	
		Fipronil Sulfide	0.15	U	ng/L	P367888	
		Fipronil Sulfone	0.15	U	ng/L	P367888	
		Fonofos	0.20	U	ng/L	P367888	
		Hexazinone	0.51	U	ng/L	P367888	
		Malathion	0.35	U	ng/L	P367888	
		Metalaxyl	0.30	U	ng/L	P367888	
		Metolachlor	0.54	I	ng/L	P367888	
		Metribuzin	0.76	UJ	ng/L	P367888	MS, RPD
		Mevinphos	0.51	U	ng/L	P367888	
		Molinate	0.30	U	ng/L	P367888	
		Norflurazon	0.51	U	ng/L	P367888	
		Oxadiazon**	0.10	U	ng/L	P367888	
		Parathion Ethyl	0.25	U	ng/L	P367888	
		Parathion Methyl	0.56	U	ng/L	P367888	
		Pendimethalin	1.0	U	ng/L	P367888	
		Phorate	0.25	U	ng/L	P367888	
		Prodiamine**	0.18	U	ng/L	P367888	
		Prometon	0.91	U	ng/L	P367888	
		Prometryn	0.20	U	ng/L	P367888	MS, RPD
		Simazine	0.51	U	ng/L	P367888	
		Tebuconazole**	0.51	UJ	ng/L	P367888	RPD
		Terbufos	0.10	U	ng/L	P367888	

Field ID: G1WA0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105853	EPA 8270E	Terbutylazine	0.43	U	ng/L	P367888	
2105856	EPA 200.7 Rev. 4.4	Barium	9.2		ug/L	P368145	
		Calcium	10.7		mg/L	P368145	
		Iron	970		ug/L	P368145	
		Magnesium	4.80		mg/L	P368145	
		Potassium	9.5		mg/L	P368145	
		Sodium	9.8		mg/L	P368145	
		Zinc	5.4	I	ug/L	P368145	
	EPA 200.8 Rev. 5.4	Aluminum	339		ug/L	P368145	
		Antimony	0.050	U	ug/L	P368145	
		Arsenic	0.90		ug/L	P368145	
		Boron**	22.3		ug/L	P368145	
		Cadmium	0.020	U	ug/L	P368145	
		Chromium	0.75	I	ug/L	P368145	
		Copper	0.91		ug/L	P368145	
		Lead	0.28	I	ug/L	P368145	
		Nickel	0.50	U	ug/L	P368145	
		Selenium	0.20	U	ug/L	P368145	
		Silver	0.010	U	ug/L	P368145	
		Thallium	0.10	U	ug/L	P368145	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8276: Insufficient sample available to perform duplicate matrix spikes.

EPA 8270E: MS accuracy for bromacil not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Quincy Creek upstream of SR 65

Collection Date/Time: 07/24/2019 14:39

Field ID: G1WA0049

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105824	EPA 180.1 Rev. 2.0	Turbidity	15	A	NTU	P367859	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P367959	
		Sulfate	0.59	I	mg SO4/L	P367961	
	SM 2120 B	Color (true)	30		PCU	P368021	
	SM 2320 B-97	Total Alkalinity	16		mg CaCO3/L	P368233	
	SM 2540 C-97	TDS	35		mg/L	P368347	
	SM 2540 D-97	TSS	22		mg/L	P368004	
	SM 4500 F-C-97	Fluoride	0.076	I	mg F/L	P368236	
2105826	EPA 350.1 Rev. 2.0	Ammonia-N	0.049		mg N/L	P368488	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P368086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P367989	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P367985	
	SM 5310 B-00	Organic Carbon	4.5		mg C/L	P368052	
2105828	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.047		mg P/L	P367846	
2105857	EPA 200.7 Rev. 4.4	Barium	19.3		ug/L	P368145	
		Calcium	5.66		mg/L	P368145	
		Iron	2.27E+03		ug/L	P368145	
		Magnesium	2.19		mg/L	P368145	
		Potassium	0.67	I	mg/L	P368145	
		Sodium	3.6		mg/L	P368145	
		Zinc	5.0	U	ug/L	P368145	
	EPA 200.8 Rev. 5.4	Aluminum	499		ug/L	P368145	
		Antimony	0.050	U	ug/L	P368145	
		Arsenic	1.00		ug/L	P368145	
		Boron**	12.7		ug/L	P368145	
		Cadmium	0.020	U	ug/L	P368145	
		Chromium	0.90	I	ug/L	P368145	
		Copper	0.76	I	ug/L	P368145	
		Lead	0.59		ug/L	P368145	
		Nickel	0.50	U	ug/L	P368145	
		Selenium	0.20	U	ug/L	P368145	
		Silver	0.010	U	ug/L	P368145	
		Thallium	0.10	U	ug/L	P368145	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Elevated level of lead confirmed on 08/20/2019.

Sample Location: Tanyard Branch 100 meters upstream of Ralph Strong Rd **Collection Date/Time: 07/24/2019 13:07**

Field ID: G1WA0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105825	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P367859	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P367959	
		Sulfate	3.9		mg SO4/L	P367961	
		Color (true)	86		PCU	P368025	
	SM 2320 B-97	Total Alkalinity	37		mg CaCO3/L	P368234	
	SM 2540 C-97	TDS	85		mg/L	P368347	
	SM 2540 D-97	TSS	11		mg/L	P368004	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P368237	
2105827	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P368488	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P368086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P367989	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P367985	
	SM 5310 B-00	Organic Carbon	5.6		mg C/L	P368052	
2105829	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P367846	
2105858	EPA 200.7 Rev. 4.4	Barium	17.8		ug/L	P368145	
		Calcium	12.5		mg/L	P368145	
		Iron	3.31E+03		ug/L	P368145	
		Magnesium	2.83		mg/L	P368145	
		Potassium	1.2		mg/L	P368145	
		Sodium	8.9		mg/L	P368145	
		Zinc	7.5	I	ug/L	P368145	
	EPA 200.8 Rev. 5.4	Aluminum	166		ug/L	P368145	
		Antimony	0.089	I	ug/L	P368145	
		Arsenic	1.36		ug/L	P368145	
		Boron**	29.9		ug/L	P368145	
		Cadmium	0.020	U	ug/L	P368145	
		Chromium	0.42	I	ug/L	P368145	
		Copper	1.49		ug/L	P368145	
		Lead	0.49		ug/L	P368145	
		Nickel	0.50	U	ug/L	P368145	
		Selenium	0.20	U	ug/L	P368145	
		Silver	0.010	U	ug/L	P368145	
		Thallium	0.10	U	ug/L	P368145	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Quincy Creek 100 meters upstream of Ralph Strong Rd

Collection Date/Time: 07/24/2019 13:32

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105815	EPA 180.1 Rev. 2.0	Turbidity	24		NTU	P367858	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P367959	
		Sulfate	0.94		mg SO4/L	P367961	
	SM 2120 B	Color (true)	31	A	PCU	P368021	
	SM 2320 B-97	Total Alkalinity	17		mg CaCO3/L	P368233	
	SM 2540 C-97	TDS	48		mg/L	P368346	
	SM 2540 D-97	TSS	44		mg/L	P368003	
	SM 4500 F-C-97	Fluoride	0.079	I	mg F/L	P368236	
2105816	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P368488	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P368086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P367989	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P367985	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P368052	
2105817	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P367846	
2105842	EPA 8321B	Aldicarb	0.020	U	ug/L	P367818	
		Aldicarb Sulfone	0.0020	U	ug/L	P367818	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P367818	RPD
		Carbaryl	0.0020	U	ug/L	P367818	
		Carbofuran	0.0020	U	ug/L	P367818	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P367818	
		Methiocarb	0.0020	U	ug/L	P367818	
		Methomyl	0.0020	U	ug/L	P367818	
		Oxamyl	0.0020	U	ug/L	P367818	
		Propoxur	0.0020	U	ug/L	P367818	
2105843		2,4-D	0.0020	U	ug/L	P367818	
		Acesulfame K**	0.10	U	ug/L	P367853	
		AMPA**	0.10	U	ug/L	P367853	
		Sucralose**	0.067		ug/L	P367853	
		Acetaminophen**	0.0080	U	ug/L	P367818	
		Endothall**	0.25	U	ug/L	P367853	
		Acetamiprid**	0.0020	UJ	ug/L	P367818	
		Glufosinate**	0.10	U	ug/L	P367853	
		Glyphosate**	0.10	U	ug/L	P367853	
		Afidopyropen**	0.0020	UJ	ug/L	P367818	
		Bentazon	0.0013	I	ug/L	P367818	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P367818	
		Carbamazepine**	8.0E-04	U	ug/L	P367818	
		Clothianidin**	0.0020	UJ	ug/L	P367818	
		Dinotefuran**	0.0061	IJ	ug/L	P367818	
		Diuron	0.0020	U	ug/L	P367818	
		Fenuron	0.016	U	ug/L	P367818	
		Fluridone**	8.0E-04	U	ug/L	P367818	

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105843	EPA 8321B	Imazapyr**	0.0040	U	ug/L	P367818	
		Hydrocodone**	0.0020	U	ug/L	P367818	
		Ibuprofen**	0.020	U	ug/L	P367818	
		Imidacloprid	0.0058	I	ug/L	P367818	MS
		Linuron	0.0040	U	ug/L	P367818	
		Mandestrobin**	0.0020	UJ	ug/L	P367818	
		MCPP	0.0020	U	ug/L	P367818	MS
		Naproxen**	0.0080	U	ug/L	P367818	
		Primidone**	0.0040	U	ug/L	P367818	
		Pyraclostrobin**	0.0020	U	ug/L	P367818	
		Thiamethoxam**	0.0020	UJ	ug/L	P367818	MS
		Tolfenpyrad**	0.0020	UJ	ug/L	P367818	
		Triclopyr**	0.0040	U	ug/L	P367818	MS
2105848	EPA 8270E	Aldrin	4.2	U	ng/L	P368103	
		Alpha-BHC	2.1	U	ng/L	P368103	
		Alpha-Chlordane	1.1	U	ng/L	P368103	
		Beta-BHC	11	U	ng/L	P368103	
		Bifenthrin**	4.2	U	ng/L	P368103	
		Delta-BHC	8.5	U	ng/L	P368103	
		Gamma-BHC	8.5	U	ng/L	P368103	
		Carbophenothion	11	U	ng/L	P368103	
		Chlorothalonil	2.1	U	ng/L	P368103	
		Cis-Nonachlor**	1.1	U	ng/L	P368103	
		Cypermethrin	21	U	ng/L	P368103	
		DDD-p,p'	6.4	U	ng/L	P368103	
		DDE-p,p'	6.4	U	ng/L	P368103	
		DDT-p,p'	7.4	U	ng/L	P368103	
		Dicofol	32	U	ng/L	P368103	
		Dieldrin	4.2	U	ng/L	P368103	
		Endosulfan I	4.2	U	ng/L	P368103	
		Endosulfan II	4.2	U	ng/L	P368103	
		Endosulfan Sulfate	2.1	U	ng/L	P368103	
		Endrin	2.1	U	ng/L	P368103	
		Endrin Aldehyde	2.1	U	ng/L	P368103	
		Endrin Ketone	2.1	U	ng/L	P368103	
		Ethalfuralin**	3.2	U	ng/L	P368103	
		Gamma-Chlordane	1.1	U	ng/L	P368103	
		Heptachlor	1.6	U	ng/L	P368103	
		Heptachlor Epoxide	2.1	U	ng/L	P368103	
		Hexachlorobenzene	2.1	U	ng/L	P368103	
		Methoxychlor	4.2	U	ng/L	P368103	
		Mirex	2.1	U	ng/L	P368103	
		Permethrin	11	U	ng/L	P368103	
		Trans-Nonachlor**	1.1	U	ng/L	P368103	
		Trifluralin	2.6	U	ng/L	P368103	

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105848	EPA 8276	Chlordane	5.3	U	ng/L	P368103	
		Toxaphene	32	U	ng/L	P368103	
2105849	EPA 8270E	Acetochlor	0.26	U	ng/L	P367888	
		Alachlor	0.26	U	ng/L	P367888	
		Ametryn	0.63	U	ng/L	P367888	
		Atrazine	0.99	I	ng/L	P367888	
		Atrazine Desethyl	1.6	UJ	ng/L	P367888	MS, RPD
		Azinphos Methyl	5.2	U	ng/L	P367888	
		Bromacil	8.9		ng/L	P367888	
		Butylate	0.42	U	ng/L	P367888	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P367888	
		Chlorpyrifos Methyl	0.10	U	ng/L	P367888	
		Cyanazine	3.4	UJ	ng/L	P367888	RPD
		Demeton	7.3	UJ	ng/L	P367888	RPD
		Diazinon	0.13	U	ng/L	P367888	
		Dimethenamid**	0.10	U	ng/L	P367888	
		Disulfoton	0.52	UJ	ng/L	P367888	LCS, RPD
		Dithiopyr**	0.10	U	ng/L	P367888	
		EPTC	1.3	U	ng/L	P367888	
		Ethion	0.16	UJ	ng/L	P367888	RPD
		Ethoprop	0.10	U	ng/L	P367888	
		Fenamiphos	0.52	U	ng/L	P367888	
		Fipronil	0.26	U	ng/L	P367888	
		Fipronil Desulfinyl**	0.13	U	ng/L	P367888	
		Fipronil Sulfide	0.16	U	ng/L	P367888	
		Fipronil Sulfone	0.16	U	ng/L	P367888	
		Fonofos	0.21	U	ng/L	P367888	
		Hexazinone	3.1		ng/L	P367888	
		Malathion	0.37	U	ng/L	P367888	
		Metalaxyl	0.31	U	ng/L	P367888	
		Metolachlor	2.1		ng/L	P367888	
		Metribuzin	0.79	UJ	ng/L	P367888	MS, RPD
		Mevinphos	0.52	U	ng/L	P367888	
		Molinate	0.31	U	ng/L	P367888	
		Norflurazon	0.52	U	ng/L	P367888	
		Oxadiazon**	0.10	U	ng/L	P367888	
		Parathion Ethyl	0.26	U	ng/L	P367888	
		Parathion Methyl	0.58	U	ng/L	P367888	
		Pendimethalin	1.0	U	ng/L	P367888	
		Phorate	0.26	U	ng/L	P367888	
		Prodiamine**	0.18	U	ng/L	P367888	
		Prometon	0.94	U	ng/L	P367888	
		Prometryn	0.21	UJ	ng/L	P367888	MS, RPD
		Simazine	0.52	U	ng/L	P367888	
		Tebuconazole**	0.52	UJ	ng/L	P367888	RPD

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105849	EPA 8270E	Terbufos	0.10	U	ng/L	P367888	
		Terbutylazine	0.45	U	ng/L	P367888	
2105854	EPA 200.7 Rev. 4.4	Barium	24.7		ug/L	P368145	
		Calcium	6.20		mg/L	P368145	
		Iron	2.93E+03		ug/L	P368145	
		Magnesium	2.20		mg/L	P368145	
		Potassium	0.66	I	mg/L	P368145	
		Sodium	3.6		mg/L	P368145	
		Zinc	6.7	I	ug/L	P368145	
	EPA 200.8 Rev. 5.4	Aluminum	800		ug/L	P368145	
		Antimony	0.050	U	ug/L	P368145	
		Arsenic	1.16		ug/L	P368145	
		Boron**	13.4		ug/L	P368145	
		Cadmium	0.026	I	ug/L	P368145	
		Chromium	1.4	I	ug/L	P368145	
		Copper	0.74	I	ug/L	P368145	
		Lead	0.97		ug/L	P368145	
		Nickel	0.50	U	ug/L	P368145	
		Selenium	0.20	U	ug/L	P368145	
		Silver	0.010	U	ug/L	P368145	
		Thallium	0.10	U	ug/L	P368145	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. Sample contains high density particulates with sandy appearance that settle out quickly.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8276: Insufficient sample available to perform duplicate matrix spikes.

EPA 8270E: MS accuracy for bromacil not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

EPA 200.8 Rev. 5.4: Elevated level of lead confirmed on 08/19/2019.

Sample Location: Swamp Creek upstream of Railroad

Collection Date/Time: 07/24/2019 11:16

Field ID: G1WA0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105818	EPA 180.1 Rev. 2.0	Turbidity	37		NTU	P367858	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P367959	
		Sulfate	1.4		mg SO4/L	P367961	
	SM 2120 B	Color (true)	51		PCU	P368021	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P368233	
	SM 2540 C-97	TDS	76		mg/L	P368346	
	SM 2540 D-97	TSS	28		mg/L	P368003	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P368236	
2105819	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P368488	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P368086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P367989	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P367985	
	SM 5310 B-00	Organic Carbon	8.1		mg C/L	P368052	
2105820	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.062		mg P/L	P367846	
2105844	EPA 8321B	Aldicarb	0.020	U	ug/L	P367818	
		Aldicarb Sulfone	0.0020	U	ug/L	P367818	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P367818	RPD
		Carbaryl	0.0020	U	ug/L	P367818	
		Carbofuran	0.0020	U	ug/L	P367818	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P367818	
		Methiocarb	0.0020	U	ug/L	P367818	
		Methomyl	0.0020	U	ug/L	P367818	
		Oxamyl	0.0020	U	ug/L	P367818	
		Propoxur	0.0020	U	ug/L	P367818	
2105845		2,4-D	0.0020	U	ug/L	P367818	
		Acesulfame K**	0.10	U	ug/L	P367853	
		AMPA**	0.10	U	ug/L	P367853	
		Sucralose**	0.028	I	ug/L	P367853	
		Acetaminophen**	0.0080	U	ug/L	P367818	
		Endothall**	0.25	U	ug/L	P367853	
		Acetamiprid**	0.0020	UJ	ug/L	P367818	
		Glufosinate**	0.10	U	ug/L	P367853	
		Glyphosate**	0.10	U	ug/L	P367853	
		Afidopyropen**	0.0020	UJ	ug/L	P367818	
		Bentazon	8.0E-04	U	ug/L	P367818	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P367818	
		Carbamazepine**	8.0E-04	U	ug/L	P367818	
		Clothianidin**	0.0020	UJ	ug/L	P367818	
		Dinotefuran**	0.0020	UJ	ug/L	P367818	
		Diuron	0.033		ug/L	P367818	
		Fenuron	0.016	U	ug/L	P367818	
		Fluridone**	8.0E-04	U	ug/L	P367818	
		Imazapyr**	0.011	I	ug/L	P367818	

Field ID: G1WA0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105845	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P367818	
		Ibuprofen**	0.020	U	ug/L	P367818	
		Imidacloprid	0.0077	I	ug/L	P367818	MS
		Linuron	0.0040	U	ug/L	P367818	
		Mandestrobin**	0.0020	UJ	ug/L	P367818	
		MCP	0.0020	U	ug/L	P367818	MS
		Naproxen**	0.0080	U	ug/L	P367818	
		Primidone**	0.0040	U	ug/L	P367818	
		Pyraclostrobin**	0.0020	U	ug/L	P367818	
		Thiamethoxam**	0.0020	UJ	ug/L	P367818	MS
		Tolfenpyrad**	0.0020	UJ	ug/L	P367818	
		Triclopyr**	0.0040	U	ug/L	P367818	MS
2105850	EPA 8270E	Aldrin	4.2	U	ng/L	P368103	
		Alpha-BHC	2.1	U	ng/L	P368103	
		Alpha-Chlordane	1.0	U	ng/L	P368103	
		Beta-BHC	10	U	ng/L	P368103	
		Bifenthrin**	4.2	U	ng/L	P368103	
		Delta-BHC	8.3	U	ng/L	P368103	
		Gamma-BHC	8.3	U	ng/L	P368103	
		Carbophenothion	10	U	ng/L	P368103	
		Chlorothalonil	2.1	U	ng/L	P368103	
		Cis-Nonachlor**	1.0	U	ng/L	P368103	
		Cypermethrin	21	U	ng/L	P368103	
		DDD-p,p'	6.2	U	ng/L	P368103	
		DDE-p,p'	6.2	U	ng/L	P368103	
		DDT-p,p'	7.3	U	ng/L	P368103	
		Dicofol	31	U	ng/L	P368103	
		Dieldrin	4.2	U	ng/L	P368103	
		Endosulfan I	4.2	U	ng/L	P368103	
		Endosulfan II	4.2	U	ng/L	P368103	
		Endosulfan Sulfate	2.1	U	ng/L	P368103	
		Endrin	2.1	U	ng/L	P368103	
		Endrin Aldehyde	2.1	U	ng/L	P368103	
		Endrin Ketone	2.1	U	ng/L	P368103	
		Ethalfuralin**	3.1	U	ng/L	P368103	
		Gamma-Chlordane	1.0	U	ng/L	P368103	
		Heptachlor	1.6	U	ng/L	P368103	
		Heptachlor Epoxide	2.1	U	ng/L	P368103	
		Hexachlorobenzene	2.1	U	ng/L	P368103	
		Methoxychlor	4.2	U	ng/L	P368103	
		Mirex	2.1	U	ng/L	P368103	
		Permethrin	10	U	ng/L	P368103	
		Trans-Nonachlor**	1.0	U	ng/L	P368103	
		Trifluralin	2.6	U	ng/L	P368103	
	EPA 8276	Chlordane	5.2	U	ng/L	P368103	

Field ID: G1WA0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105850	EPA 8276	Toxaphene	31	U	ng/L	P368103	
2105851	EPA 8270E	Acetochlor	1.1		ng/L	P367888	
		Alachlor	0.26	U	ng/L	P367888	
		Ametryn	0.62	U	ng/L	P367888	
		Atrazine	2.9		ng/L	P367888	
		Atrazine Desethyl	1.5	UJ	ng/L	P367888	MS, RPD
		Azinphos Methyl	5.2	U	ng/L	P367888	
		Bromacil	0.52	U	ng/L	P367888	
		Butylate	0.41	U	ng/L	P367888	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P367888	
		Chlorpyrifos Methyl	0.10	U	ng/L	P367888	
		Cyanazine	3.4	UJ	ng/L	P367888	RPD
		Demeton	7.2	UJ	ng/L	P367888	RPD
		Diazinon	0.13	U	ng/L	P367888	
		Dimethenamid**	1.8		ng/L	P367888	
		Disulfoton	0.52	UJ	ng/L	P367888	LCS, RPD
		Dithiopyr**	0.10	U	ng/L	P367888	
		EPTC	1.3	U	ng/L	P367888	
		Ethion	0.15	UJ	ng/L	P367888	RPD
		Ethoprop	0.10	U	ng/L	P367888	
		Fenamiphos	0.52	U	ng/L	P367888	
		Fipronil	0.26	U	ng/L	P367888	
		Fipronil Desulfinyl**	0.13	U	ng/L	P367888	
		Fipronil Sulfide	0.15	U	ng/L	P367888	
		Fipronil Sulfone	0.15	U	ng/L	P367888	
		Fonofos	0.21	U	ng/L	P367888	
		Hexazinone	0.82	I	ng/L	P367888	
		Malathion	0.36	U	ng/L	P367888	
		Metalaxyl	0.31	U	ng/L	P367888	
		Metolachlor	20		ng/L	P367888	
		Metribuzin	0.77	UJ	ng/L	P367888	MS, RPD
		Mevinphos	0.52	U	ng/L	P367888	
		Molinate	0.31	U	ng/L	P367888	
		Norflurazon	0.52	U	ng/L	P367888	
		Oxadiazon**	0.10	U	ng/L	P367888	
		Parathion Ethyl	0.26	U	ng/L	P367888	
		Parathion Methyl	0.57	U	ng/L	P367888	
		Pendimethalin	1.0	U	ng/L	P367888	
		Phorate	0.26	U	ng/L	P367888	
		Prodiamine**	0.18	U	ng/L	P367888	
		Prometon	0.93	U	ng/L	P367888	
		Prometryn	0.21	U	ng/L	P367888	MS, RPD
		Simazine	1.5	I	ng/L	P367888	
		Tebuconazole**	1.3	IJ	ng/L	P367888	RPD
		Terbufos	0.10	U	ng/L	P367888	

Field ID: G1WA0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105851	EPA 8270E	Terbutylazine	0.44	U	ng/L	P367888	
2105855	EPA 200.7 Rev. 4.4	Barium	36.6		ug/L	P368145	
		Calcium	10.2		mg/L	P368145	
		Iron	2.69E+03		ug/L	P368145	
		Magnesium	3.33		mg/L	P368145	
		Potassium	1.3		mg/L	P368145	
		Sodium	3.4		mg/L	P368145	
		Zinc	5.0	U	ug/L	P368145	
	EPA 200.8 Rev. 5.4	Aluminum	1.37E+03		ug/L	P368145	
		Antimony	0.050	U	ug/L	P368145	
		Arsenic	1.58		ug/L	P368145	
		Boron**	15.6		ug/L	P368145	
		Cadmium	0.020	U	ug/L	P368145	
		Chromium	2.1		ug/L	P368145	
		Copper	0.60	I	ug/L	P368145	
		Lead	1.14		ug/L	P368145	
		Nickel	0.60	I	ug/L	P368145	
		Selenium	0.22	I	ug/L	P368145	
		Silver	0.010	U	ug/L	P368145	
		Thallium	0.10	U	ug/L	P368145	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8276: Insufficient sample available to perform duplicate matrix spikes.

EPA 8270E: MS accuracy for bromacil not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

EPA 200.8 Rev. 5.4: The lead result was confirmed on 08/19/2019.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P367858

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P367859

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P368145

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P368145

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P367959

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P367961

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: P368488

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P368086

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P367989

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P367985

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P367846

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

Reference Method: EPA 8270E
 Batch ID: P367888

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P367888

Component	Result	Code	Units
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P368103

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E**Batch ID: P368103**

Component	Result	Code	Units
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276**Batch ID: P368103**

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

Reference Method: EPA 8321B**Batch ID: P367818**

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.076		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
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P367818

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

Reference Method: EPA 8321B
Batch ID: P367853

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

Reference Method: SM 2120 B
Batch ID: P368021

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P368025

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P368233

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

Reference Method: SM 2320 B-97
Batch ID: P368234

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

Reference Method: SM 2540 C-97
Batch ID: P368346

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P368347

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P368003

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P368004

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P368236

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P368237

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P368052

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: P368145

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	100		P	85 - 115
Calcium	109		P	85 - 115
Iron	104		P	85 - 115
Magnesium	114		P	85 - 115
Potassium	109		P	85 - 115
Sodium	110		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P368145

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	96.3		P	85 - 115
Arsenic	103		P	85 - 115
Boron	104		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	97.5		P	85 - 115
Copper	100		P	85 - 115
Lead	96.3		P	85 - 115
Nickel	101		P	85 - 115
Selenium	104		P	85 - 115
Silver	95.4		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P367959

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P367961

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P368488

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P368086

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P367989

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P367985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P367846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.6		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P367888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	81.8	90.5	P/P	69 - 122
Alachlor	80.5	89.5	P/P	71 - 120
Ametryn	79.2	84.3	P/P	47 - 138
Atrazine	98.1	92.7	P/P	74 - 124
Atrazine Desethyl	137	71.0	P/P	38 - 138
Azinphos Methyl	100	89.9	P/P	69 - 154
Bromacil	67.7	60.6	P/P	39 - 121
Butylate	55.8	55.0	P/P	27 - 87.0
Chlorpyrifos Ethyl	88.4	92.5	P/P	69 - 118
Chlorpyrifos Methyl	94.6	89.1	P/P	70 - 120
Cyanazine	207	119	P/P	20 - 250
Demeton	81.8	50.2	P/P	39 - 118
Diazinon	92.8	87.7	P/P	68 - 127
Dimethenamid	72.3	90.7	P/P	66 - 125
Disulfoton	85.3	48.7	P/F	52 - 126
Dithiopyr	84.4	93.4	P/P	67 - 127
EPTC	55.5	58.8	P/P	24 - 88.0
Ethion	57.2	93.7	P/P	51 - 132
Ethoprop	96.2	80.2	P/P	58 - 117
Fenamiphos	87.2	81.5	P/P	38 - 139
Fipronil	84.0	87.9	P/P	61 - 124
Fipronil Desulfinyl	78.1	82.9	P/P	47 - 120
Fipronil Sulfide	88.6	88.0	P/P	56 - 119
Fipronil Sulfone	79.6	86.2	P/P	50 - 117
Fonofos	103	82.6	P/P	60 - 121
Hexazinone	91.7	102	P/P	55 - 137
Malathion	90.2	88.1	P/P	66 - 126
Metalaxyl	89.6	91.7	P/P	33 - 140
Metolachlor	82.5	90.3	P/P	69 - 119
Metribuzin	237	82.8	P/P	31 - 238
Mevinphos	92.9	75.8	P/P	42 - 113
Molinate	62.3	64.3	P/P	32 - 96.0
Norflurazon	84.7	88.0	P/P	54 - 123
Oxadiazon	87.0	94.4	P/P	63 - 128

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P367888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	88.0	88.5	P/P	72 - 111
Parathion Methyl	103	91.5	P/P	74 - 126
Pendimethalin	81.1	80.5	P/P	61 - 131
Phorate	82.0	66.4	P/P	51 - 115
Prodiamine	64.0	73.2	P/P	38 - 144
Prometon	78.8	84.8	P/P	54 - 119
Prometryn	82.6	87.0	P/P	63 - 120
Simazine	108	94.2	P/P	75 - 126
Tebuconazole	36.0	60.1	P/P	20 - 119
Terbufos	94.6	75.0	P/P	64 - 116
Terbuthylazine	92.4	90.8	P/P	73 - 117

Reference Method: EPA 8270E

Batch ID: P368103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	58.2	58.6	P/P	20 - 93.0
Alpha-BHC	107	102	P/P	57 - 119
Alpha-Chlordane	78.5	77.5	P/P	58 - 112
Beta-BHC	111	101	P/P	56 - 149
Bifenthrin	82.4	77.4	P/P	30 - 134
Carbophenothion	26.4	33.1	P/P	26 - 147
Chlorothalonil	117	117	P/P	20 - 155
Cis-Nonachlor	76.5	76.1	P/P	54 - 115
Cypermethrin	82.6	78.1	P/P	40 - 137
DDD-p,p'	84.3	83.7	P/P	65 - 129
DDE-p,p'	79.6	77.8	P/P	57 - 116
DDT-p,p'	104	97.7	P/P	53 - 133
Delta-BHC	112	105	P/P	59 - 163
Dicofol	79.1	73.4	P/P	24 - 138
Dieldrin	82.2	83.0	P/P	60 - 120
Endosulfan I	82.9	84.2	P/P	64 - 118
Endosulfan II	86.1	87.7	P/P	58 - 142
Endosulfan Sulfate	78.5	73.6	P/P	60 - 127
Endrin	79.6	87.0	P/P	59 - 122
Endrin Aldehyde	81.3	82.9	P/P	49 - 132
Endrin Ketone	79.9	74.3	P/P	64 - 121
Ethalfuralin	95.7	92.1	P/P	60 - 126
Gamma-BHC	118	110	P/P	56 - 141
Gamma-Chlordane	77.4	75.7	P/P	56 - 110
Heptachlor	71.9	72.5	P/P	46 - 96.0
Heptachlor Epoxide	79.7	80.2	P/P	61 - 112
Hexachlorobenzene	75.4	68.1	P/P	44 - 98.0
Methoxychlor	110	106	P/P	63 - 134
Mirex	65.1	57.6	P/P	45 - 100
Permethrin	72.8	69.4	P/P	53 - 115
Trans-Nonachlor	75.7	74.6	P/P	47 - 110
Trifluralin	95.6	87.7	P/P	39 - 142

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P368103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	83.1	86.7	P/P	43 - 128
Toxaphene	68.4	73.8	P/P	38 - 140

Reference Method: EPA 8321B

Batch ID: P367818

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	157		P	40 - 160
3-Hydroxycarbofuran	108		P	40 - 150
Acetaminophen	121		P	30 - 150
Acetamiprid	101		P	40 - 150
Afidopyropen	93.6		P	40 - 150
Aldicarb	108		P	30 - 150
Aldicarb Sulfone	115		P	40 - 150
Aldicarb Sulfoxide	109		P	40 - 150
Bentazon	111		P	30 - 150
Benzovindiflupyr	109		P	40 - 150
Carbamazepine	108		P	40 - 150
Carbaryl	95.8		P	40 - 150
Carbofuran	95.4		P	40 - 150
Clothianidin	120		P	40 - 150
Dinotefuran	111		P	40 - 150
Diuron	109		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	102		P	40 - 150
Ibuprofen	104		P	30 - 150
Imazapyr	75.3		P	40 - 150
Imidacloprid	108		P	40 - 150
Linuron	93.7		P	40 - 150
Mandestrobin	107		P	40 - 150
MCPP	160		P	40 - 160
Methiocarb	89.4		P	40 - 150
Methomyl	94.2		P	40 - 150
Naproxen	133		P	40 - 150
Oxamyl	109		P	40 - 150
Primidone	102		P	40 - 150
Propoxur	91.5		P	40 - 150
Pyraclostrobin	101		P	30 - 150
Thiamethoxam	109		P	40 - 150
Tolfenpyrad	68.9		P	40 - 150
Triclopyr	108		P	30 - 150

Reference Method: EPA 8321B

Batch ID: P367853

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	131		P	40 - 150
AMPA	74.0		P	40 - 150
Endothall	106		P	40 - 150
Glufosinate	82.9		P	40 - 150
Glyphosate	85.2		P	40 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P367853

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	71.1		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P368021

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	105		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P368025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P368233

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

Reference Method: SM 2320 B-97
Batch ID: P368234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P368236

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.5		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P368237

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P368052

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

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P368145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105959	Barium	98.2	101	P/P	80 - 120
2105959	Calcium	106	108	P/P	80 - 120
2105959	Iron	102	104	P/P	80 - 120
2105959	Magnesium	109	112	P/P	80 - 120
2105959	Potassium	112	112	P/P	80 - 120
2105959	Sodium	111	113	P/P	80 - 120
2105959	Zinc	97.7	103	P/P	80 - 120
2105969	Barium	102		P	80 - 120
2105969	Calcium	108		P	80 - 120
2105969	Iron	105		P	80 - 120
2105969	Magnesium	113		P	80 - 120
2105969	Potassium	107		P	80 - 120
2105969	Sodium	111		P	80 - 120
2105969	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P368145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105959	Aluminum	102	102	P/P	80 - 120
2105959	Antimony	97.4	97.4	P/P	80 - 120
2105959	Arsenic	104	104	P/P	80 - 120
2105959	Boron	107	106	P/P	80 - 120
2105959	Cadmium	105	106	P/P	80 - 120
2105959	Chromium	99.1	98.0	P/P	80 - 120
2105959	Copper	103	104	P/P	80 - 120
2105959	Lead	98.3	98.3	P/P	80 - 120
2105959	Nickel	102	102	P/P	80 - 120
2105959	Selenium	103	104	P/P	80 - 120
2105959	Silver	96.9	97.2	P/P	80 - 120
2105959	Thallium	103	103	P/P	80 - 120
2105969	Aluminum	102		P	80 - 120
2105969	Antimony	95.1		P	80 - 120
2105969	Arsenic	104		P	80 - 120
2105969	Boron	105		P	80 - 120
2105969	Cadmium	104		P	80 - 120
2105969	Chromium	98.5		P	80 - 120
2105969	Copper	103		P	80 - 120
2105969	Lead	96.1		P	80 - 120
2105969	Nickel	103		P	80 - 120
2105969	Selenium	103		P	80 - 120
2105969	Silver	95.5		P	80 - 120
2105969	Thallium	99.9		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P367959

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105682	Chloride	101		P	90 - 110
2105815	Chloride	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367961

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105682	Sulfate	102		P	90 - 110
2105815	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105797	Ammonia-N	109	109	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105827	Kjeldahl Nitrogen	98.9	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105816	NO2NO3-N	93.5	94.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105896	Total-P	101	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105692	O-Phosphate-P	93.0	94.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P367888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105849	Acetochlor	74.6	85.2	P/P	63 - 129
2105849	Alachlor	74.0	80.1	P/P	65 - 127
2105849	Ametryn	63.1	84.2	P/P	40 - 164
2105849	Atrazine	94.2	111	P/P	66 - 135
2105849	Atrazine Desethyl	116	160	P/F	14 - 157
2105849	Azinphos Methyl	73.8	93.8	P/P	49 - 180
2105849	Butylate	49.8	52.9	P/P	10 - 94.0
2105849	Chlorpyrifos Ethyl	85.0	92.9	P/P	58 - 123
2105849	Chlorpyrifos Methyl	86.4	94.6	P/P	58 - 125
2105849	Cyanazine	179	185	P/P	24 - 253
2105849	Demeton	78.8	90.3	P/P	25 - 149
2105849	Diazinon	85.8	97.2	P/P	59 - 144
2105849	Dimethenamid	62.8	68.9	P/P	46 - 139
2105849	Disulfoton	87.1	94.2	P/P	54 - 132
2105849	Dithiopyr	71.9	83.4	P/P	64 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P367888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105849	EPTC	51.0	50.7	P/P	10 - 92.0
2105849	Ethion	52.5	51.5	P/P	30 - 148
2105849	Ethoprop	94.5	99.2	P/P	50 - 130
2105849	Fenamiphos	75.6	78.3	P/P	49 - 142
2105849	Fipronil	72.6	88.1	P/P	46 - 140
2105849	Fipronil Desulfinyl	64.1	78.0	P/P	30 - 121
2105849	Fipronil Sulfide	79.5	95.4	P/P	31 - 136
2105849	Fipronil Sulfone	70.2	89.9	P/P	16 - 136
2105849	Fonofos	103	110	P/P	55 - 129
2105849	Hexazinone	86.7	94.8	P/P	56 - 141
2105849	Malathion	83.3	99.3	P/P	56 - 135
2105849	Metalaxyl	76.2	88.3	P/P	54 - 135
2105849	Metolachlor	70.0	85.0	P/P	51 - 140
2105849	Metribuzin	214	261	P/F	45 - 254
2105849	Mevinphos	88.0	104	P/P	33 - 131
2105849	Molinate	58.2	52.7	P/P	14 - 98.0
2105849	Norflurazon	71.8	84.2	P/P	34 - 136
2105849	Oxadiazon	74.5	84.4	P/P	67 - 116
2105849	Parathion Ethyl	83.3	98.5	P/P	66 - 118
2105849	Parathion Methyl	94.8	109	P/P	64 - 136
2105849	Pendimethalin	89.0	96.8	P/P	59 - 144
2105849	Phorate	88.4	101	P/P	42 - 130
2105849	Prodiamine	47.0	59.2	P/P	42 - 148
2105849	Prometon	78.4	97.0	P/P	59 - 134
2105849	Prometryn	53.1	77.1	F/P	54 - 135
2105849	Simazine	100	116	P/P	53 - 156
2105849	Tebuconazole	30.5	30.9	P/P	10 - 131
2105849	Terbufos	96.0	112	P/P	57 - 131
2105849	Terbutylazine	82.4	96.4	P/P	68 - 125

Reference Method: EPA 8270E

Batch ID: P368103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2106131	Aldrin	62.0	61.0	P/P	25 - 92.0
2106131	Alpha-BHC	112	114	P/P	49 - 130
2106131	Alpha-Chlordane	76.8	77.4	P/P	50 - 115
2106131	Beta-BHC	118	113	P/P	43 - 157
2106131	Bifenthrin	83.9	84.2	P/P	46 - 116
2106131	Carbophenothion	98.2	75.3	P/P	27 - 180
2106131	Chlorothalonil	140	151	P/P	10 - 216
2106131	Cis-Nonachlor	75.3	75.2	P/P	55 - 112
2106131	Cypermethrin	83.5	84.1	P/P	40 - 153
2106131	DDD-p,p'	84.7	85.6	P/P	53 - 128
2106131	DDE-p,p'	79.1	79.8	P/P	48 - 116
2106131	DDT-p,p'	104	101	P/P	47 - 128
2106131	Delta-BHC	122	119	P/P	51 - 196
2106131	Dicofol	73.9	81.9	P/P	10 - 147
2106131	Dieldrin	80.4	80.5	P/P	48 - 128
2106131	Endosulfan I	94.2	88.3	P/P	58 - 126
2106131	Endosulfan II	91.5	93.2	P/P	50 - 150
2106131	Endosulfan Sulfate	79.5	81.5	P/P	56 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P368103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2106131	Endrin	85.2	88.6	P/P	50 - 126
2106131	Endrin Aldehyde	79.6	76.5	P/P	12 - 145
2106131	Endrin Ketone	79.9	78.9	P/P	59 - 132
2106131	Ethalfuralin	96.6	100	P/P	65 - 122
2106131	Gamma-BHC	114	117	P/P	50 - 155
2106131	Gamma-Chlordane	75.2	75.3	P/P	50 - 112
2106131	Heptachlor	72.3	73.2	P/P	41 - 98.0
2106131	Heptachlor Epoxide	79.3	79.3	P/P	55 - 117
2106131	Hexachlorobenzene	75.7	76.3	P/P	47 - 91.0
2106131	Methoxychlor	108	116	P/P	55 - 133
2106131	Mirex	64.9	64.1	P/P	44 - 101
2106131	Permethrin	73.7	73.6	P/P	52 - 124
2106131	Trans-Nonachlor	75.0	74.4	P/P	53 - 99.0
2106131	Trifluralin	96.9	95.4	P/P	10 - 201

Reference Method: EPA 8276

Batch ID: P368103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105642	Chlordane	57.1		P	34 - 136
2105642	Toxaphene	46.8		P	22 - 152

Reference Method: EPA 8321B

Batch ID: P367818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105476	3-Hydroxycarbofuran	104	115	P/P	40 - 150
2105476	Aldicarb	102	109	P/P	30 - 150
2105476	Aldicarb Sulfone	109	116	P/P	40 - 150
2105476	Aldicarb Sulfoxide	85.7	55.0	P/P	40 - 150
2105476	Carbaryl	76.8	84.9	P/P	40 - 150
2105476	Carbofuran	75.2	83.0	P/P	40 - 150
2105476	Methiocarb	72.2	85.7	P/P	40 - 150
2105476	Methomyl	70.1	81.6	P/P	40 - 150
2105476	Oxamyl	99.0	107	P/P	40 - 150
2105476	Propoxur	72.5	82.9	P/P	40 - 150
2105641	Acetaminophen	115	112	P/P	30 - 150
2105641	Acetamiprid	114	100	P/P	40 - 150
2105641	Afidopyropen	114	108	P/P	40 - 150
2105641	Bentazon	64.3	66.7	P/P	30 - 150
2105641	Benzovindiflupyr	123	126	P/P	40 - 150
2105641	Carbamazepine	100	101	P/P	40 - 150
2105641	Clothianidin	144	129	P/P	40 - 150
2105641	Dinotefuran	143	131	P/P	40 - 150
2105641	Diuron	98.8	97.3	P/P	40 - 150
2105641	Fenuron	87.1	85.4	P/P	40 - 150
2105641	Fluridone	107	111	P/P	40 - 150
2105641	Hydrocodone	108	102	P/P	40 - 150
2105641	Ibuprofen	133	125	P/P	30 - 150
2105641	Imazapyr	88.8	84.8	P/P	40 - 150
2105641	Imidacloprid	217	226	F/F	40 - 150
2105641	Linuron	94.4	93.6	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P367818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105641	Mandestrobin	115	113	P/P	40 - 150
2105641	MCCP	243	239	F/F	40 - 150
2105641	Naproxen	144	142	P/P	40 - 150
2105641	Primidone	115	99.3	P/P	40 - 150
2105641	Pyraclostrobin	113	118	P/P	30 - 150
2105641	Thiamethoxam	159	154	F/F	40 - 150
2105641	Tolfenpyrad	79.7	84.5	P/P	40 - 150
2105641	Triclopyr	186	195	F/F	30 - 150

Reference Method: EPA 8321B

Batch ID: P367853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105639	Acesulfame K	106	111	P/P	40 - 150
2105639	AMPA	53.6	55.8	P/P	40 - 150
2105639	Endothall	90.9	89.6	P/P	40 - 150
2105639	Glufosinate	71.3	73.9	P/P	40 - 150
2105639	Glyphosate	81.2	79.9	P/P	40 - 140
2105639	Sucralose	81.6	82.9	P/P	40 - 150

Reference Method: SM 4500 F-C-97

Batch ID: P368236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105785	Fluoride	96.6	96.6	P/P	89 - 106

Reference Method: SM 4500 F-C-97

Batch ID: P368237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105867	Fluoride	96.4	97.0	P/P	89 - 106

Reference Method: SM 5310 B-00

Batch ID: P368052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105686	Organic Carbon	98.9	97.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P367858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105684	Turbidity	1.63	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P367859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105824	Turbidity	4.03	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105959	Barium	2.69	Spike	P	0 - 20
2105959	Calcium	1.58	Spike	P	0 - 20
2105959	Iron	1.72	Spike	P	0 - 20
2105959	Magnesium	2.01	Spike	P	0 - 20
2105959	Potassium	0.416	Spike	P	0 - 20
2105959	Sodium	1.42	Spike	P	0 - 20
2105959	Zinc	5.22	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105959	Aluminum	0.362	Spike	P	0 - 20
2105959	Antimony	0.0367	Spike	P	0 - 20
2105959	Arsenic	0.125	Spike	P	0 - 20
2105959	Boron	0.737	Spike	P	0 - 20
2105959	Cadmium	0.831	Spike	P	0 - 20
2105959	Chromium	1.12	Spike	P	0 - 20
2105959	Copper	0.218	Spike	P	0 - 20
2105959	Lead	0.00154	Spike	P	0 - 20
2105959	Nickel	0.457	Spike	P	0 - 20
2105959	Selenium	0.939	Spike	P	0 - 20
2105959	Silver	0.242	Spike	P	0 - 20
2105959	Thallium	0.317	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367959

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105682	Chloride	0.923	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105682	Sulfate	1.17	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105797	Ammonia-N	0.0502	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105827	Kjeldahl Nitrogen	2.20	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105816	NO2NO3-N	0.563	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105896	Total-P	3.28	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105692	O-Phosphate-P	1.07	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P367888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105849	Acetochlor	13.3	Spike	P	0 - 30
2105849	Alachlor	7.98	Spike	P	0 - 30
2105849	Ametryn	28.6	Spike	P	0 - 30
2105849	Atrazine	13.3	Spike	P	0 - 30
2105849	Atrazine Desethyl	31.4	Spike	F	0 - 30
2105849	Azinphos Methyl	23.9	Spike	P	0 - 30
2105849	Bromacil	13.7	Spike	P	0 - 30
2105849	Butylate	6.12	Spike	P	0 - 30
2105849	Chlorpyrifos Ethyl	8.90	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P367888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105849	Chlorpyrifos Methyl	9.05	Spike	P	0 - 30
2105849	Cyanazine	3.00	Spike	P	0 - 30
2105849	Demeton	13.5	Spike	P	0 - 30
2105849	Diazinon	12.5	Spike	P	0 - 30
2105849	Dimethenamid	9.26	Spike	P	0 - 30
2105849	Disulfoton	7.86	Spike	P	0 - 30
2105849	Dithiopyr	14.9	Spike	P	0 - 30
2105849	EPTC	0.613	Spike	P	0 - 30
2105849	Ethion	2.05	Spike	P	0 - 30
2105849	Ethoprop	4.88	Spike	P	0 - 30
2105849	Fenamiphos	3.48	Spike	P	0 - 30
2105849	Fipronil	19.2	Spike	P	0 - 30
2105849	Fipronil Desulfinyl	19.6	Spike	P	0 - 30
2105849	Fipronil Sulfide	18.1	Spike	P	0 - 30
2105849	Fipronil Sulfone	24.6	Spike	P	0 - 30
2105849	Fonofos	6.55	Spike	P	0 - 30
2105849	Hexazinone	6.96	Spike	P	0 - 30
2105849	Malathion	17.5	Spike	P	0 - 30
2105849	Metalaxyl	14.8	Spike	P	0 - 30
2105849	Metolachlor	15.8	Spike	P	0 - 30
2105849	Metribuzin	19.9	Spike	P	0 - 30
2105849	Mevinphos	16.6	Spike	P	0 - 30
2105849	Molinate	10.1	Spike	P	0 - 30
2105849	Norflurazon	15.9	Spike	P	0 - 30
2105849	Oxadiazon	12.6	Spike	P	0 - 30
2105849	Parathion Ethyl	16.8	Spike	P	0 - 30
2105849	Parathion Methyl	13.6	Spike	P	0 - 30
2105849	Pendimethalin	8.32	Spike	P	0 - 30
2105849	Phorate	13.5	Spike	P	0 - 30
2105849	Prodiamine	23.0	Spike	P	0 - 30
2105849	Prometon	21.2	Spike	P	0 - 30
2105849	Prometryn	36.9	Spike	F	0 - 30
2105849	Simazine	14.6	Spike	P	0 - 30
2105849	Tebuconazole	1.37	Spike	P	0 - 30
2105849	Terbufos	15.4	Spike	P	0 - 30
2105849	Terbuthylazine	15.6	Spike	P	0 - 30
LFB	Acetochlor	10.1	LCS	P	0 - 30
LFB	Alachlor	10.6	LCS	P	0 - 30
LFB	Ametryn	6.17	LCS	P	0 - 30
LFB	Atrazine	5.60	LCS	P	0 - 30
LFB	Atrazine Desethyl	63.7	LCS	F	0 - 30
LFB	Azinphos Methyl	10.7	LCS	P	0 - 30
LFB	Bromacil	10.9	LCS	P	0 - 30
LFB	Butylate	1.44	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.51	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.02	LCS	P	0 - 30
LFB	Cyanazine	54.3	LCS	F	0 - 30
LFB	Demeton	47.9	LCS	F	0 - 30
LFB	Diazinon	5.65	LCS	P	0 - 30
LFB	Dimethenamid	22.5	LCS	P	0 - 30
LFB	Disulfoton	54.6	LCS	F	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P367888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	10.1	LCS	P	0 - 30
LFB	EPTC	5.67	LCS	P	0 - 30
LFB	Ethion	48.5	LCS	F	0 - 30
LFB	Ethoprop	18.1	LCS	P	0 - 30
LFB	Fenamiphos	6.80	LCS	P	0 - 30
LFB	Fipronil	4.63	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	5.92	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.723	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.96	LCS	P	0 - 30
LFB	Fonofos	22.4	LCS	P	0 - 30
LFB	Hexazinone	10.4	LCS	P	0 - 30
LFB	Malathion	2.33	LCS	P	0 - 30
LFB	Metaxyl	2.33	LCS	P	0 - 30
LFB	Metolachlor	8.96	LCS	P	0 - 30
LFB	Metribuzin	96.4	LCS	F	0 - 30
LFB	Mevinphos	20.3	LCS	P	0 - 30
LFB	Molinate	3.29	LCS	P	0 - 30
LFB	Norflurazon	3.82	LCS	P	0 - 30
LFB	Oxadiazon	8.15	LCS	P	0 - 30
LFB	Parathion Ethyl	0.565	LCS	P	0 - 30
LFB	Parathion Methyl	11.4	LCS	P	0 - 30
LFB	Pendimethalin	0.759	LCS	P	0 - 30
LFB	Phorate	21.0	LCS	P	0 - 30
LFB	Prodiamine	13.3	LCS	P	0 - 30
LFB	Prometon	7.36	LCS	P	0 - 30
LFB	Prometryn	5.22	LCS	P	0 - 30
LFB	Simazine	13.4	LCS	P	0 - 30
LFB	Tebuconazole	50.0	LCS	F	0 - 30
LFB	Terbufos	23.1	LCS	P	0 - 30
LFB	Terbutylazine	1.67	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P368103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106131	Aldrin	1.61	Spike	P	0 - 30
2106131	Alpha-BHC	1.97	Spike	P	0 - 30
2106131	Alpha-Chlordane	0.713	Spike	P	0 - 30
2106131	Beta-BHC	4.25	Spike	P	0 - 30
2106131	Bifenthrin	0.361	Spike	P	0 - 30
2106131	Carbophenothion	26.4	Spike	P	0 - 30
2106131	Chlorothalonil	7.28	Spike	P	0 - 30
2106131	Cis-Nonachlor	0.156	Spike	P	0 - 30
2106131	Cypermethrin	0.671	Spike	P	0 - 30
2106131	DDD-p,p'	1.03	Spike	P	0 - 30
2106131	DDE-p,p'	0.984	Spike	P	0 - 30
2106131	DDT-p,p'	3.56	Spike	P	0 - 30
2106131	Delta-BHC	2.37	Spike	P	0 - 30
2106131	Dicofol	10.3	Spike	P	0 - 30
2106131	Dieldrin	0.216	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P368103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106131	Endosulfan I	6.42	Spike	P	0 - 30
2106131	Endosulfan II	1.91	Spike	P	0 - 30
2106131	Endosulfan Sulfate	2.48	Spike	P	0 - 30
2106131	Endrin	3.90	Spike	P	0 - 30
2106131	Endrin Aldehyde	3.99	Spike	P	0 - 30
2106131	Endrin Ketone	1.18	Spike	P	0 - 30
2106131	Ethalfuralin	3.88	Spike	P	0 - 30
2106131	Gamma-BHC	3.02	Spike	P	0 - 30
2106131	Gamma-Chlordane	0.115	Spike	P	0 - 30
2106131	Heptachlor	1.24	Spike	P	0 - 30
2106131	Heptachlor Epoxide	0.00693	Spike	P	0 - 30
2106131	Hexachlorobenzene	0.685	Spike	P	0 - 30
2106131	Methoxychlor	6.62	Spike	P	0 - 30
2106131	Mirex	1.26	Spike	P	0 - 30
2106131	Permethrin	0.0813	Spike	P	0 - 30
2106131	Trans-Nonachlor	0.817	Spike	P	0 - 30
2106131	Trifluralin	1.50	Spike	P	0 - 30
LFB	Aldrin	0.676	LCS	P	0 - 30
LFB	Alpha-BHC	5.00	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.34	LCS	P	0 - 30
LFB	Beta-BHC	9.08	LCS	P	0 - 30
LFB	Bifenthrin	6.25	LCS	P	0 - 30
LFB	Carbophenothion	22.6	LCS	P	0 - 30
LFB	Chlorothalonil	0.0810	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.609	LCS	P	0 - 30
LFB	Cypermethrin	5.55	LCS	P	0 - 30
LFB	DDD-p,p'	0.741	LCS	P	0 - 30
LFB	DDE-p,p'	2.37	LCS	P	0 - 30
LFB	DDT-p,p'	6.61	LCS	P	0 - 30
LFB	Delta-BHC	6.29	LCS	P	0 - 30
LFB	Dicofol	7.47	LCS	P	0 - 30
LFB	Dieldrin	0.984	LCS	P	0 - 30
LFB	Endosulfan I	1.58	LCS	P	0 - 30
LFB	Endosulfan II	1.84	LCS	P	0 - 30
LFB	Endosulfan Sulfate	6.32	LCS	P	0 - 30
LFB	Endrin	8.85	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.90	LCS	P	0 - 30
LFB	Endrin Ketone	7.25	LCS	P	0 - 30
LFB	Ethalfuralin	3.84	LCS	P	0 - 30
LFB	Gamma-BHC	7.06	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.26	LCS	P	0 - 30
LFB	Heptachlor	0.857	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.640	LCS	P	0 - 30
LFB	Hexachlorobenzene	10.2	LCS	P	0 - 30
LFB	Methoxychlor	4.19	LCS	P	0 - 30
LFB	Mirex	12.3	LCS	P	0 - 30
LFB	Permethrin	4.70	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.50	LCS	P	0 - 30
LFB	Trifluralin	8.61	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P368103

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlordane	4.25	LCS	P	0 - 30
LFB	Toxaphene	7.56	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P367818

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105476	3-Hydroxycarbofuran	9.98	Spike	P	0 - 30
2105476	Aldicarb	5.96	Spike	P	0 - 30
2105476	Aldicarb Sulfone	6.62	Spike	P	0 - 30
2105476	Aldicarb Sulfoxide	43.6	Spike	F	0 - 30
2105476	Carbaryl	9.97	Spike	P	0 - 30
2105476	Carbofuran	9.87	Spike	P	0 - 30
2105476	Methiocarb	17.1	Spike	P	0 - 30
2105476	Methomyl	15.1	Spike	P	0 - 30
2105476	Oxamyl	7.92	Spike	P	0 - 30
2105476	Propoxur	13.3	Spike	P	0 - 30
2105641	2,4-D	5.11	Spike	P	0 - 30
2105641	Acetaminophen	2.57	Spike	P	0 - 30
2105641	Acetamiprid	13.4	Spike	P	0 - 30
2105641	Afidopyropen	5.45	Spike	P	0 - 30
2105641	Bentazon	3.64	Spike	P	0 - 30
2105641	Benzovindiflupyr	1.88	Spike	P	0 - 30
2105641	Carbamazepine	0.342	Spike	P	0 - 30
2105641	Clothianidin	11.3	Spike	P	0 - 30
2105641	Dinotefuran	6.55	Spike	P	0 - 30
2105641	Diuron	1.41	Spike	P	0 - 30
2105641	Fenuron	2.00	Spike	P	0 - 30
2105641	Fluridone	4.02	Spike	P	0 - 30
2105641	Hydrocodone	5.44	Spike	P	0 - 30
2105641	Ibuprofen	6.38	Spike	P	0 - 30
2105641	Imazapyr	4.31	Spike	P	0 - 30
2105641	Imidacloprid	3.47	Spike	P	0 - 30
2105641	Linuron	0.874	Spike	P	0 - 30
2105641	Mandestrobin	1.83	Spike	P	0 - 30
2105641	MCPP	1.35	Spike	P	0 - 30
2105641	Naproxen	1.83	Spike	P	0 - 30
2105641	Primidone	14.6	Spike	P	0 - 30
2105641	Pyraclostrobin	4.00	Spike	P	0 - 30
2105641	Thiamethoxam	3.17	Spike	P	0 - 30
2105641	Tolfenpyrad	5.87	Spike	P	0 - 30
2105641	Triclopyr	5.19	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P367853

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105639	Acesulfame K	3.72	Spike	P	0 - 30
2105639	AMPA	1.59	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P367853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105639	Endothall	1.45	Spike	P	0 - 30
2105639	Glufosinate	3.50	Spike	P	0 - 30
2105639	Glyphosate	0.892	Spike	P	0 - 30
2105639	Sucralose	1.60	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P368021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105815	Color (true)	0.351	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P368025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106018	Color (true)	0.680	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P368233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105785	Total Alkalinity	0.612	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P368234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105867	Total Alkalinity	0.337	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P368346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105683	TDS	0.778	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P368347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105867	TDS	0.990	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P368236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105785	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P368237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105867	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P368052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105686	Organic Carbon	0.663	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2105842

Field Sample ID: G1WA0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	88.1	P	30 - 160

Lab Sample ID: 2105843

Field Sample ID: G1WA0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	138	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	99.6	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	129	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160

Lab Sample ID: 2105844

Field Sample ID: G1WA0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	89.8	P	30 - 160

Lab Sample ID: 2105845

Field Sample ID: G1WA0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	110	P	30 - 160
EPA 8321B	Diuron-d6	95.8	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	127	P	30 - 160
EPA 8321B	Primidone-d5	118	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Lab Sample ID: 2105846

Field Sample ID: G1WA0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	86.0	P	30 - 160

Lab Sample ID: 2105847

Field Sample ID: G1WA0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 2105847

Field Sample ID: G1WA0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	147	P	30 - 160
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	99.2	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	153	P	30 - 160
EPA 8321B	Primidone-d5	125	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2105848

Field Sample ID: G1WA0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	68.3	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	62.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	45.1	P	30 - 103
EPA 8276	PCNB	75.0	P	37 - 143

Lab Sample ID: 2105849

Field Sample ID: G1WA0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	102	P	68 - 130
EPA 8270E	Terbufos-d10	102	P	61 - 136

Lab Sample ID: 2105850

Field Sample ID: G1WA0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	78.1	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	66.7	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	52.9	P	30 - 103
EPA 8276	PCNB	82.2	P	37 - 143

Lab Sample ID: 2105851

Field Sample ID: G1WA0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	94.5	P	68 - 130
EPA 8270E	Terbufos-d10	96.9	P	61 - 136

Lab Sample ID: 2105852

Field Sample ID: G1WA0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	76.9	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	71.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	53.2	P	30 - 103

Quality Assurance Report Surrogates

Lab Sample ID: 2105852
Field Sample ID: G1WA0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	PCNB	81.3	P	37 - 143

Lab Sample ID: 2105853
Field Sample ID: G1WA0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	101	P	68 - 130
EPA 8270E	Terbufos-d10	105	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92954

Included Lab Sample IDs: 2105815, 2105818, 2105821, 2105824, 2105825

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92997

Included Lab Sample IDs: 2105817, 2105820, 2105823, 2105828, 2105829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.4	95.7	P/P	90 - 110
O-Phosphate-P	98.3	97.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A93008

Included Lab Sample IDs: 2105815, 2105818, 2105821, 2105824, 2105825

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A93050

Included Lab Sample IDs: 2105816, 2105819, 2105822, 2105826, 2105827

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A93064

Included Lab Sample IDs: 2105815, 2105818, 2105821, 2105824, 2105825

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 115
Color (true)	102	104	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A93078

Included Lab Sample IDs: 2105843, 2105845, 2105847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.0	95.9	P/P	50 - 150
2,4-D	92.7	95.1	P/P	50 - 150
3-Hydroxycarbofuran	112	119	P/P	60 - 150
Acetaminophen	139	141	P/P	60 - 160
Acetamiprid	114	107	P/P	50 - 150
Afidopyrophen	112	125	P/P	50 - 150
Aldicarb	133	98.0	P/P	60 - 150
Aldicarb Sulfone	115	116	P/P	50 - 150
Aldicarb Sulfoxide	104	98.9	P/P	50 - 150
Bentazon	107	104	P/P	50 - 160

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8321B

Run ID: A93078

Included Lab Sample IDs: 2105843, 2105845, 2105847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	127	121	P/P	50 - 150
Carbamazepine	110	110	P/P	60 - 150
Carbaryl	117	111	P/P	60 - 150
Carbofuran	114	115	P/P	50 - 150
Clothianidin	126	116	P/P	60 - 150
Dinotefuran	104	126	P/P	50 - 150
Diuron	117	115	P/P	60 - 150
Fenuron	107	109	P/P	60 - 150
Fluridone	113	111	P/P	60 - 160
Hydrocodone	108	111	P/P	60 - 150
Ibuprofen	84.6	86.7	P/P	50 - 160
Imazapyr	79.2	72.2	P/P	50 - 150
Imidacloprid	97.4	110	P/P	60 - 150
Linuron	110	106	P/P	60 - 150
Mandestrobin	117	108	P/P	50 - 150
MCPP	111	112	P/P	50 - 150
Methiocarb	107	114	P/P	50 - 150
Methomyl	104	103	P/P	50 - 150
Naproxen	122	122	P/P	50 - 160
Oxamyl	123	116	P/P	50 - 150
Primidone	99.3	101	P/P	60 - 150
Propoxur	114	114	P/P	50 - 150
Pyraclostrobin	120	114	P/P	60 - 150
Thiamethoxam	102	106	P/P	50 - 150
Tolfenpyrad	114	115	P/P	60 - 150
Triclopyr	94.9	99.0	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A93079

Included Lab Sample IDs: 2105816, 2105819, 2105822, 2105826, 2105827

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	95.8	P/P	90 - 110
Organic Carbon	99.1	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93085

Included Lab Sample IDs: 2105816, 2105819, 2105822, 2105826, 2105827

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

Reference Method: EPA 8321B

Run ID: A93099

Included Lab Sample IDs: 2105843, 2105845, 2105847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	132	131	P/P	60 - 160
Acesulfame K	133	132	P/P	60 - 160
Endothall	109	110	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93099

Included Lab Sample IDs: 2105843, 2105845, 2105847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endothall	110	111	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A93119

Included Lab Sample IDs: 2105843, 2105845, 2105847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	85.3	86.8	P/P	60 - 160
AMPA	86.8	77.9	P/P	60 - 160
Glufosinate	86.3	86.6	P/P	60 - 160
Glufosinate	86.6	76.4	P/P	60 - 160
Glyphosate	84.4	78.3	P/P	60 - 160
Glyphosate	88.2	84.4	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93125

Included Lab Sample IDs: 2105816, 2105819, 2105822, 2105826, 2105827

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.3	95.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A93148

Included Lab Sample IDs: 2105849, 2105851, 2105853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	96.6		P	80 - 120
Atrazine	98.3		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	96.9		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	98.1		P	80 - 120
Chlorpyrifos Ethyl	98.4		P	80 - 120
Chlorpyrifos Methyl	99.4		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	99.8		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	94.8		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	99.1		P	80 - 120
Ethion	96.4		P	80 - 120
Ethoprop	97.4		P	80 - 120
Fenamiphos	95.6		P	80 - 120
Fipronil	98.0		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	98.0		P	80 - 120
Fipronil Sulfone	97.8		P	80 - 120
Fonofos	97.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A93148

Included Lab Sample IDs: 2105849, 2105851, 2105853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexazinone	102		P	80 - 120
Malathion	95.5		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	96.1		P	80 - 120
Molinate	93.8		P	80 - 120
Norflurazon	98.9		P	80 - 120
Oxadiazon	104		P	80 - 120
Parathion Ethyl	97.6		P	80 - 120
Parathion Methyl	96.3		P	80 - 120
Pendimethalin	99.7		P	80 - 120
Phorate	96.9		P	80 - 120
Prodiamine	93.1		P	80 - 120
Prometon	98.5		P	80 - 120
Prometryn	104		P	80 - 120
Simazine	94.4		P	80 - 120
Tebuconazole	99.6		P	80 - 120
Terbufos	95.4		P	80 - 120
Terbutylazine	96.4		P	80 - 120

Reference Method: SM 2320 B-97

Run ID: A93171

Included Lab Sample IDs: 2105815, 2105818, 2105821, 2105824, 2105825

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A93171

Included Lab Sample IDs: 2105815, 2105818, 2105821, 2105824, 2105825

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.1	P/P	90 - 110
Fluoride	98.1	97.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A93175

Included Lab Sample IDs: 2105854, 2105855, 2105856, 2105857, 2105858

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	103	P/P	90 - 110
Calcium	103	103	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	104	105	P/P	90 - 110
Potassium	99.7	102	P/P	90 - 110
Sodium	104	105	P/P	90 - 110
Zinc	105	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A93179

Included Lab Sample IDs: 2105848, 2105850, 2105852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.2		P	80 - 120
Alpha-BHC	95.3		P	80 - 120
Alpha-Chlordane	89.5		P	80 - 120
Beta-BHC	94.1		P	80 - 120
Bifenthrin	92.8		P	80 - 120
Carbophenothion	106		P	80 - 120
Chlorothalonil	87.4		P	80 - 120
Cis-Nonachlor	87.9		P	80 - 120
Cypermethrin	90.2		P	80 - 120
DDD-p,p'	90.6		P	80 - 120
DDE-p,p'	90.5		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	83.9		P	80 - 120
Dicofol	99.9		P	80 - 120
Dieldrin	94.3		P	80 - 120
Endosulfan I	88.0		P	80 - 120
Endosulfan II	86.0		P	80 - 120
Endosulfan Sulfate	93.8		P	80 - 120
Endrin	90.1		P	80 - 120
Endrin Aldehyde	86.4		P	80 - 120
Endrin Ketone	95.4		P	80 - 120
Ethalfuralin	94.4		P	80 - 120
Gamma-BHC	93.8		P	80 - 120
Gamma-Chlordane	90.6		P	80 - 120
Heptachlor	89.1		P	80 - 120
Heptachlor Epoxide	89.2		P	80 - 120
Hexachlorobenzene	94.3		P	80 - 120
Methoxychlor	95.8		P	80 - 120
Mirex	95.0		P	80 - 120
Permethrin	87.1		P	80 - 120
Trans-Nonachlor	88.8		P	80 - 120
Trifluralin	93.9		P	80 - 120

Reference Method: EPA 8276

Run ID: A93260

Included Lab Sample IDs: 2105848, 2105850, 2105852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.1		P	80 - 120
Toxaphene	97.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A93277

Included Lab Sample IDs: 2105854, 2105855, 2105856, 2105857, 2105858

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.2	100	P/P	90 - 110
Aluminum	99.6	99.2	P/P	90 - 110
Antimony	92.1	91.6	P/P	90 - 110
Antimony	92.4	92.1	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A93277

Included Lab Sample IDs: 2105854, 2105855, 2105856, 2105857, 2105858

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	100	P/P	90 - 110
Boron	101	104	P/P	90 - 110
Boron	104	104	P/P	90 - 110
Cadmium	101	99.9	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	96.4	96.9	P/P	90 - 110
Chromium	96.9	96.3	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Copper	100	101	P/P	90 - 110
Lead	98.8	98.9	P/P	90 - 110
Lead	98.9	98.9	P/P	90 - 110
Nickel	100	101	P/P	90 - 110
Nickel	99.7	100	P/P	90 - 110
Selenium	100	101	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Silver	95.0	95.2	P/P	90 - 110
Silver	95.2	95.5	P/P	90 - 110
Thallium	95.2	96.0	P/P	90 - 110
Thallium	96.0	96.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A93281

Included Lab Sample IDs: 2105816, 2105819, 2105822, 2105826, 2105827

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	102	93.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A93331

Included Lab Sample IDs: 2105843, 2105845, 2105847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	67.7	77.2	P/P	60 - 160
Sucralose	79.6	67.7	P/P	60 - 160

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision	
							LCS	SMP
EPA 180.1 Rev. 2.0	Turbidity							1.63
	Turbidity							4.03
EPA 200.7 Rev. 4.4	Barium	100		98.2	101	102		
	Calcium	109		106	108	108		2.69
	Iron	104		102	104	105		1.58
	Magnesium	114		109	112	113		1.72
	Potassium	109		112	112	107		2.01
	Sodium	110		111	113	111		0.416
	Zinc	102		97.7	103	101		1.42
EPA 200.8 Rev. 5.4	Aluminum	101		102	102	102		5.22
	Antimony	96.3		97.4	97.4	95.1		0.362
	Arsenic	103		104	104	104		0.0367
	Boron	104		107	106	105		0.125
	Cadmium	104		105	106	104		0.737
	Chromium	97.5		99.1	98.0	98.5		0.831
	Copper	100		103	104	103		1.12
	Lead	96.3		98.3	98.3	96.1		0.218
	Nickel	101		102	102	103		0.0015
	Selenium	104		103	104	103		0.457
	Silver	95.4		96.9	97.2	95.5		0.939
	Thallium	101		103	103	99.9		0.242
	Chloride	101		101	103			0.317
	Sulfate	103		102	103			0.923
EPA 300.0 Rev. 2.1	Ammonia-N	104		109	109			1.17
EPA 350.1 Rev. 2.0	Kjeldahl Nitrogen	101		98.9	102			
EPA 351.2 Rev. 2.0	NO2NO3-N	100		93.5	94.5			0.0502
EPA 353.2 Rev. 2.0	Total-P	99.9		101	97.6			2.20
EPA 365.1 Rev. 2.0	O-Phosphate-P	99.6		93.0	94.0			0.563
EPA 365.1 Rev. 2.0 dissolved	Acetochlor	81.8	90.5	74.6	85.2	10.1		3.28
EPA 8270E	Alachlor	80.5	89.5	74.0	80.1	10.6		1.07
	Aldrin	58.2	58.6	61.0	62.0	0.676		13.3
	Alpha-BHC	107	102	114	112	5.00		7.98
	Alpha-Chlordane	78.5	77.5	76.8	77.4	1.34		1.61
	Ametryn	79.2	84.3	63.1	84.2	6.17		1.97
	Atrazine	98.1	92.7	94.2	111	5.60		0.713
	Atrazine Desethyl	137	71.0	116	160	63.7		28.6
	Azinphos Methyl	100	89.9	73.8	93.8	10.7		13.3
	Beta-BHC	111	101	118	113	9.08		31.4
	Bifenthrin	82.4	77.4	83.9	84.2	6.25		23.9
	Bromacil	67.7	60.6			10.9		4.25
	Butylate	55.8	55.0	49.8	52.9	1.44		0.361
	Carbophenothion	26.4	33.1	98.2	75.3	22.6		13.7
	Chlorothalonil	117	117	140	151	0.0810		6.12
	Chlorpyrifos Ethyl	88.4	92.5	85.0	92.9	4.51		26.4
	Chlorpyrifos Methyl	94.6	89.1	86.4	94.6	6.02		7.28
	Cis-Nonachlor	76.5	76.1	75.2	75.3	0.609		8.90
	Cyanazine	207	119	179	185	54.3		9.05
	Cypermethrin	82.6	78.1	84.1	83.5	5.55		0.156
	DDD-p,p'	84.3	83.7	85.6	84.7	0.741		3.00
	DDE-p,p'	79.6	77.8	79.8	79.1	2.37		0.671
	DDT-p,p'	104	97.7	101	104	6.61		1.03
	Delta-BHC	112	105	122	119	6.29		0.984
	Demeton	81.8	50.2	78.8	90.3	47.9		2.37
	Diazinon	92.8	87.7	85.8	97.2	5.65		13.5
								12.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dicofol	79.1	73.4	81.9	73.9	7.47	10.3
	Dieldrin	82.2	83.0	80.5	80.4	0.984	0.216
	Dimethenamid	72.3	90.7	62.8	68.9	22.5	9.26
	Disulfoton	85.3	48.7	87.1	94.2	54.6	7.86
	Dithiopyr	84.4	93.4	71.9	83.4	10.1	14.9
	Endosulfan I	82.9	84.2	88.3	94.2	1.58	6.42
	Endosulfan II	86.1	87.7	93.2	91.5	1.84	1.91
	Endosulfan Sulfate	78.5	73.6	81.5	79.5	6.32	2.48
	Endrin	79.6	87.0	88.6	85.2	8.85	3.90
	Endrin Aldehyde	81.3	82.9	76.5	79.6	1.90	3.99
	Endrin Ketone	79.9	74.3	78.9	79.9	7.25	1.18
	EPTC	55.5	58.8	51.0	50.7	5.67	0.613
	Ethalfuralin	95.7	92.1	100	96.6	3.84	3.88
	Ethion	57.2	93.7	52.5	51.5	48.5	2.05
	Ethoprop	96.2	80.2	94.5	99.2	18.1	4.88
	Fenamiphos	87.2	81.5	75.6	78.3	6.80	3.48
	Fipronil	84.0	87.9	72.6	88.1	4.63	19.2
	Fipronil Desulfinyl	78.1	82.9	64.1	78.0	5.92	19.6
	Fipronil Sulfide	88.6	88.0	79.5	95.4	0.723	18.1
	Fipronil Sulfone	79.6	86.2	70.2	89.9	7.96	24.6
	Fonofos	103	82.6	103	110	22.4	6.55
	Gamma-BHC	118	110	114	117	7.06	3.02
	Gamma-Chlordane	77.4	75.7	75.3	75.2	2.26	0.115
	Heptachlor	71.9	72.5	73.2	72.3	0.857	1.24
	Heptachlor Epoxide	79.7	80.2	79.3	79.3	0.640	0.0069
	Hexachlorobenzene	75.4	68.1	75.7	76.3	10.2	0.685
	Hexazinone	91.7	102	86.7	94.8	10.4	6.96
	Malathion	90.2	88.1	83.3	99.3	2.33	17.5
	Metalaxyl	89.6	91.7	76.2	88.3	2.33	14.8
	Methoxychlor	110	106	108	116	4.19	6.62
	Metolachlor	82.5	90.3	70.0	85.0	8.96	15.8
	Metribuzin	237	82.8	214	261	96.4	19.9
	Mevinphos	92.9	75.8	88.0	104	20.3	16.6
	Mirex	65.1	57.6	64.9	64.1	12.3	1.26
	Molinate	62.3	64.3	58.2	52.7	3.29	10.1
	Norflurazon	84.7	88.0	71.8	84.2	3.82	15.9
	Oxadiazon	87.0	94.4	74.5	84.4	8.15	12.6
	Parathion Ethyl	88.0	88.5	83.3	98.5	0.565	16.8
	Parathion Methyl	103	91.5	94.8	109	11.4	13.6
	Pendimethalin	81.1	80.5	89.0	96.8	0.759	8.32
	Permethrin	72.8	69.4	73.7	73.6	4.70	0.0813
	Phorate	82.0	66.4	88.4	101	21.0	13.5
	Prodiamine	64.0	73.2	47.0	59.2	13.3	23.0
	Prometon	78.8	84.8	78.4	97.0	7.36	21.2
	Prometryn	82.6	87.0	53.1	77.1	5.22	36.9
	Simazine	108	94.2	100	116	13.4	14.6
	Tebuconazole	36.0	60.1	30.5	30.9	50.0	1.37
	Terbufos	94.6	75.0	96.0	112	23.1	15.4
	Terbutylazine	92.4	90.8	82.4	96.4	1.67	15.6
	Trans-Nonachlor	75.7	74.6	75.0	74.4	1.50	0.817
	Trifluralin	95.6	87.7	96.9	95.4	8.61	1.50
EPA 8276	Chlordane	83.1	86.7	57.1		4.25	
	Toxaphene	68.4	73.8	46.8		7.56	
EPA 8321B	2,4-D	157					5.11

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	3-Hydroxycarbofuran	108	104	115		9.98
	Acesulfame K	131	106	111		3.72
	Acetaminophen	121	115	112		2.57
	Acetamiprid	101	114	100		13.4
	Afidopyropen	93.6	114	108		5.45
	Aldicarb	108	102	109		5.96
	Aldicarb Sulfone	115	109	116		6.62
	Aldicarb Sulfoxide	109	85.7	55.0		43.6
	AMPA	74.0	53.6	55.8		1.59
	Bentazon	111	64.3	66.7		3.64
	Benzovindiflupyr	109	123	126		1.88
	Carbamazepine	108	100	101		0.342
	Carbaryl	95.8	76.8	84.9		9.97
	Carbofuran	95.4	75.2	83.0		9.87
	Clothianidin	120	144	129		11.3
	Dinotefuran	111	143	131		6.55
	Diuron	109	98.8	97.3		1.41
	Endothall	106	90.9	89.6		1.45
	Fenuron	109	87.1	85.4		2.00
	Fluridone	103	107	111		4.02
	Glufosinate	82.9	71.3	73.9		3.50
	Glyphosate	85.2	81.2	79.9		0.892
	Hydrocodone	102	108	102		5.44
	Ibuprofen	104	133	125		6.38
	Imazapyr	75.3	88.8	84.8		4.31
	Imidacloprid	108	217	226		3.47
	Linuron	93.7	94.4	93.6		0.874
	Mandestrobin	107	115	113		1.83
	MCP	160	243	239		1.35
	Methiocarb	89.4	72.2	85.7		17.1
	Methomyl	94.2	70.1	81.6		15.1
	Naproxen	133	144	142		1.83
	Oxamyl	109	99.0	107		7.92
	Primidone	102	115	99.3		14.6
	Propoxur	91.5	72.5	82.9		13.3
	Pyraclostrobin	101	113	118		4.00
	Sucralose	71.1	81.6	82.9		1.60
	Thiamethoxam	109	159	154		3.17
	Tolfenpyrad	68.9	79.7	84.5		5.87
	Triclopyr	108	186	195		5.19
SM 2120 B	Color (true)	105			0.351	
	Color (true)	102			0.680	
SM 2320 B-97	Total Alkalinity	104			0.612	
	Total Alkalinity	103			0.337	
SM 2540 C-97	TDS				0.778	
	TDS				0.990	
SM 4500 F-C-97	Fluoride	95.5	96.6	96.6		0.0
	Fluoride	95.5	96.4	97.0		0.473
SM 5310 B-00	Organic Carbon	100	98.9	97.8		0.663

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
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Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2105815, 2105818, 2105821, 2105824, 2105825
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2105854, 2105855, 2105856, 2105857, 2105858
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2105854, 2105855, 2105856, 2105857, 2105858
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2105815, 2105818, 2105821, 2105824, 2105825
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2105815, 2105818, 2105821, 2105824, 2105825
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2105816, 2105819, 2105822, 2105826, 2105827
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2105816, 2105819, 2105822, 2105826, 2105827
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2105816, 2105819, 2105822, 2105826, 2105827
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2105816, 2105819, 2105822, 2105826, 2105827
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2105817, 2105820, 2105823, 2105828, 2105829
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2105848, 2105850, 2105852
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2105849, 2105851, 2105853
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2105848, 2105850, 2105852
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2105842, 2105844, 2105846
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2105843, 2105845, 2105847
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2105843, 2105845, 2105847
SM 2120 B / E31780	True Color measured at 450 nm	2105815, 2105818, 2105821, 2105824, 2105825
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2105815, 2105818, 2105821, 2105824, 2105825
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2105815, 2105818, 2105821, 2105824, 2105825
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2105815, 2105818, 2105821, 2105824, 2105825
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2105815, 2105818, 2105821, 2105824, 2105825
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2105816, 2105819, 2105822, 2105826, 2105827

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	07/24/2019			07/24/2019 17:04	Adrian Shelby	2105815, 2105818, 2105821, 2105824, 2105825
EPA 200.7 Rev. 4.4	07/24/2019	07/30/2019 14:25	Elliott D. Healy	07/31/2019 14:30	Betina Topolski	2105854
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	07/31/2019 14:36	Betina Topolski	2105855
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	07/31/2019 14:42	Betina Topolski	2105856
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	07/31/2019 14:48	Betina Topolski	2105857
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	07/31/2019 14:54	Betina Topolski	2105858
EPA 200.8 Rev. 5.4	07/24/2019	07/30/2019 14:25	Elliott D. Healy	08/06/2019 00:13	Robert K Palmer	2105854
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	08/06/2019 00:23	Robert K Palmer	2105855
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	08/06/2019 00:33	Robert K Palmer	2105856
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	08/06/2019 01:41	Robert K Palmer	2105857
	07/24/2019	07/30/2019 14:25	Elliott D. Healy	08/06/2019 01:51	Robert K Palmer	2105858
EPA 300.0 Rev. 2.1	07/24/2019			07/25/2019 22:24	Jhamieka S. Greenwood	2105815
	07/24/2019			07/26/2019 01:02	Jhamieka S. Greenwood	2105818
	07/24/2019			07/26/2019 01:14	Jhamieka S. Greenwood	2105821
	07/24/2019			07/26/2019 01:26	Jhamieka S. Greenwood	2105824
	07/24/2019			07/26/2019 01:38	Jhamieka S. Greenwood	2105825
EPA 350.1 Rev. 2.0	07/24/2019			08/05/2019 16:31	Virginia P. Brown	2105816
	07/24/2019			08/05/2019 16:39	Virginia P. Brown	2105819
	07/24/2019			08/05/2019 16:40	Virginia P. Brown	2105822
	07/24/2019			08/05/2019 16:42	Virginia P. Brown	2105826
	07/24/2019			08/05/2019 16:43	Virginia P. Brown	2105827
EPA 351.2 Rev. 2.0	07/24/2019	07/29/2019 13:00	Adrian Shelby	07/30/2019 10:52	Joseph Suarez	2105816
	07/24/2019	07/29/2019 13:00	Adrian Shelby	07/30/2019 10:54	Joseph Suarez	2105819
	07/24/2019	07/29/2019 13:00	Adrian Shelby	07/30/2019 10:55	Joseph Suarez	2105822
	07/24/2019	07/29/2019 13:00	Adrian Shelby	07/30/2019 10:57	Joseph Suarez	2105826
	07/24/2019	07/29/2019 13:00	Adrian Shelby	07/30/2019 10:59	Joseph Suarez	2105827
EPA 353.2 Rev. 2.0	07/24/2019			07/26/2019 10:34	Beverly Y. Sanders	2105816
	07/24/2019			07/26/2019 10:42	Beverly Y. Sanders	2105819
	07/24/2019			07/26/2019 10:43	Beverly Y. Sanders	2105822
	07/24/2019			07/26/2019 10:44	Beverly Y. Sanders	2105826
	07/24/2019			07/26/2019 10:45	Beverly Y. Sanders	2105827
EPA 365.1 Rev. 2.0	07/24/2019	07/26/2019 11:58	Vijayalakshmi Reddy	07/29/2019 09:08	Lipi Saha	2105816, 2105819
	07/24/2019	07/26/2019 11:58	Vijayalakshmi Reddy	07/29/2019 09:11	Lipi Saha	2105826
	07/24/2019	07/26/2019 11:58	Vijayalakshmi Reddy	07/29/2019 09:12	Lipi Saha	2105827
	07/24/2019	07/26/2019 11:58	Vijayalakshmi Reddy	07/29/2019 09:31	Lipi Saha	2105822
EPA 365.1 Rev. 2.0 dissolved	07/24/2019			07/24/2019 17:10	Jhamieka S. Greenwood	2105817
	07/24/2019			07/24/2019 17:12	Jhamieka S. Greenwood	2105820
	07/24/2019			07/24/2019 17:13	Jhamieka S. Greenwood	2105828
	07/24/2019			07/24/2019 17:14	Jhamieka S. Greenwood	2105829

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	07/24/2019			07/24/2019 17:34	Jhamieka S. Greenwood	2105823
EPA 8270E	07/24/2019	07/26/2019 09:00	Rasheda Ghaffari	08/01/2019 01:39	Arthur Maknenko	2105848
	07/24/2019	07/26/2019 09:00	Rasheda Ghaffari	08/01/2019 02:11	Arthur Maknenko	2105850
	07/24/2019	07/26/2019 09:00	Rasheda Ghaffari	08/01/2019 02:43	Arthur Maknenko	2105852
	07/24/2019	07/26/2019 12:30	Fe-Val Siddell	07/30/2019 18:21	Vandana T. Nagar	2105849
	07/24/2019	07/26/2019 12:30	Fe-Val Siddell	07/30/2019 20:31	Vandana T. Nagar	2105851
	07/24/2019	07/26/2019 12:30	Fe-Val Siddell	07/30/2019 20:57	Vandana T. Nagar	2105853
EPA 8276	07/24/2019	07/26/2019 09:00	Rasheda Ghaffari	08/03/2019 04:35	Luis Flores	2105848
	07/24/2019	07/26/2019 09:00	Rasheda Ghaffari	08/03/2019 05:30	Luis Flores	2105850
	07/24/2019	07/26/2019 09:00	Rasheda Ghaffari	08/03/2019 06:26	Luis Flores	2105852
EPA 8321B	07/24/2019	07/25/2019 11:00	Rebecca Ware	07/28/2019 02:51	Rebecca Ware	2105843
	07/24/2019	07/25/2019 11:00	Rebecca Ware	07/28/2019 03:33	Rebecca Ware	2105845
	07/24/2019	07/25/2019 11:00	Rebecca Ware	07/28/2019 03:46	Rebecca Ware	2105847
	07/24/2019	07/25/2019 11:00	Rebecca Ware	07/29/2019 15:46	Rebecca Ware	2105843
	07/24/2019	07/25/2019 11:00	Rebecca Ware	07/29/2019 16:07	Rebecca Ware	2105845
	07/24/2019	07/25/2019 11:00	Rebecca Ware	07/29/2019 16:18	Rebecca Ware	2105847
	07/24/2019	07/25/2019 11:00	Rebecca Ware	08/06/2019 19:15	Rebecca Ware	2105843
	07/24/2019	07/25/2019 11:00	Rebecca Ware	08/06/2019 19:39	Rebecca Ware	2105845
	07/24/2019	07/25/2019 11:00	Rebecca Ware	08/06/2019 19:50	Rebecca Ware	2105847
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/26/2019 23:06	Juyoung Kim	2105842
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/26/2019 23:41	Juyoung Kim	2105844
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/27/2019 00:15	Juyoung Kim	2105846
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/27/2019 04:52	Juyoung Kim	2105843
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/27/2019 05:27	Juyoung Kim	2105845
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/27/2019 06:01	Juyoung Kim	2105847
	07/24/2019	07/26/2019 14:00	Hoor Shaik	07/29/2019 11:55	Juyoung Kim	2105847
SM 2120 B	07/24/2019			07/25/2019 16:26	Madeline Funaro	2105821
	07/24/2019			07/25/2019 16:28	Madeline Funaro	2105825
	07/24/2019			07/25/2019 17:11	Madeline Funaro	2105815
	07/24/2019			07/25/2019 17:12	Madeline Funaro	2105818
	07/24/2019			07/25/2019 17:13	Madeline Funaro	2105824
SM 2320 B-97	07/24/2019			07/31/2019 00:12	Dale L. Simmons	2105815
	07/24/2019			07/31/2019 00:23	Dale L. Simmons	2105818
	07/24/2019			07/31/2019 00:36	Dale L. Simmons	2105821
	07/24/2019			07/31/2019 01:18	Dale L. Simmons	2105824
	07/24/2019			07/31/2019 02:30	Dale L. Simmons	2105825
SM 2540 C-97	07/24/2019			07/25/2019 13:30	Sima Feizi	2105815, 2105818, 2105821, 2105824, 2105825
SM 2540 D-97	07/24/2019			07/25/2019 13:30	Sima Feizi	2105815, 2105818, 2105821, 2105824, 2105825

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	07/24/2019			07/31/2019 00:12	Dale L. Simmons	2105815
	07/24/2019			07/31/2019 00:23	Dale L. Simmons	2105818
	07/24/2019			07/31/2019 00:36	Dale L. Simmons	2105821
	07/24/2019			07/31/2019 01:18	Dale L. Simmons	2105824
	07/24/2019			07/31/2019 02:30	Dale L. Simmons	2105825
SM 5310 B-00	07/24/2019			07/26/2019 19:32	Madeline Funaro	2105816
	07/24/2019			07/26/2019 19:46	Madeline Funaro	2105819
	07/24/2019			07/26/2019 20:23	Madeline Funaro	2105822
	07/24/2019			07/26/2019 20:35	Madeline Funaro	2105826
	07/24/2019			07/26/2019 20:49	Madeline Funaro	2105827