Chemical Analysis Report

SW-DIST-2019-09-10-01

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

Event Description: **SMP: Baker, Bellow Outlet, New River**
Request ID: **RQ-2019-09-09-08**
Customer: **SW-DIST**
Project ID: **SMP**

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

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

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 30-SEP-2019 16:09

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: Baker Creek @ Thonotosassa Rd **Collection Date/Time: 09/09/2019 10:20**

Field ID: G2SW0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117222	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P370435	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P370545	
		Sulfate	8.3		mg SO4/L	P370548	
	SM 2120 B	Color (true)	190		PCU	P370439	
	SM 2320 B-97	Total Alkalinity	50		mg CaCO3/L	P370694	
	SM 2540 C-97	TDS	116		mg/L	P371058	
	SM 2540 D-97	TSS	7	I	mg/L	P370873	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P370697	
2117225	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P370516	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P370503	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P370464	
	EPA 365.1 Rev. 2.0	Total-P	0.59		mg P/L	P370538	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P370527	
2117228	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.43		mg P/L	P370432	
2117249	EPA 8321B	Aldicarb	0.020	U	ug/L	P370422	
		Aldicarb Sulfone	0.0020	U	ug/L	P370422	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P370422	
		Carbaryl	0.0020	U	ug/L	P370422	
		Carbofuran	0.0020	U	ug/L	P370422	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P370422	
		Methiocarb	0.0020	U	ug/L	P370422	
		Methomyl	0.0020	U	ug/L	P370422	
		Oxamyl	0.032		ug/L	P370422	
		Propoxur	0.0020	U	ug/L	P370422	
2117252		Acesulfame K**	0.16	I	ug/L	P370512	
		2,4-D	0.016		ug/L	P370371	MS
		AMPA**	1.1		ug/L	P370512	
		Sucralose**	0.90	J	ug/L	P370512	MS
		Acetaminophen**	0.0080	U	ug/L	P370371	
		Endothall**	0.25	U	ug/L	P370512	
		Acetamiprid**	0.0020	U	ug/L	P370371	
		Glufosinate**	0.10	U	ug/L	P370512	
		Glyphosate**	1.7		ug/L	P370512	
		Afidopyropen**	0.0020	UJ	ug/L	P370371	
		Bentazon	0.019		ug/L	P370371	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370371	
		Carbamazepine**	0.0012	I	ug/L	P370371	
		Clothianidin**	0.0050	I	ug/L	P370371	
		Dinotefuran**	0.0024	I	ug/L	P370371	
		Diuron	0.021		ug/L	P370371	
		Fenuron	0.016	U	ug/L	P370371	
		Fluridone**	0.0044		ug/L	P370371	
		Imazapyr**	0.13		ug/L	P370371	

Field ID: G2SW0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117252	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P370371	
		Ibuprofen**	0.020	U	ug/L	P370371	
		Imidacloprid	0.020		ug/L	P370371	MS
		Linuron	0.0040	U	ug/L	P370371	
		Mandestrobin**	0.0020	UJ	ug/L	P370371	
		MCPP	0.0020	U	ug/L	P370371	MS
		Naproxen**	0.0080	U	ug/L	P370371	
		Primidone**	0.0040	U	ug/L	P370371	
		Pyraclostrobin**	0.0020	U	ug/L	P370371	
		Thiamethoxam**	0.018		ug/L	P370371	
		Tolfenpyrad**	0.0020	U	ug/L	P370371	
		Triclopyr**	0.0040	U	ug/L	P370371	
2117257	EPA 8270E	Aldrin	4.3	U	ng/L	P370542	
		Alpha-BHC	2.1	U	ng/L	P370542	
		Alpha-Chlordane	1.1	U	ng/L	P370542	
		Beta-BHC	11	U	ng/L	P370542	
		Bifenthrin**	4.3	U	ng/L	P370542	
		Delta-BHC	8.5	U	ng/L	P370542	
		Gamma-BHC	8.5	U	ng/L	P370542	
		Carbophenothion	11	U	ng/L	P370542	
		Chlorothalonil	2.1	U	ng/L	P370542	
		Cis-Nonachlor**	1.1	U	ng/L	P370542	
		Cypermethrin	21	U	ng/L	P370542	
		DDD-p,p'	6.4	U	ng/L	P370542	
		DDE-p,p'	6.4	U	ng/L	P370542	
		DDT-p,p'	7.5	U	ng/L	P370542	
		Dicofol	32	U	ng/L	P370542	
		Dieldrin	4.3	U	ng/L	P370542	
		Endosulfan I	4.3	U	ng/L	P370542	
		Endosulfan II	4.3	U	ng/L	P370542	
		Endosulfan Sulfate	2.1	U	ng/L	P370542	
		Endrin	2.1	U	ng/L	P370542	
		Endrin Aldehyde	2.1	U	ng/L	P370542	
		Endrin Ketone	2.1	U	ng/L	P370542	
		Ethalfluralin**	3.2	U	ng/L	P370542	
		Gamma-Chlordane	1.1	U	ng/L	P370542	
		Heptachlor	1.6	U	ng/L	P370542	
		Heptachlor Epoxide	2.1	U	ng/L	P370542	
		Hexachlorobenzene	2.1	U	ng/L	P370542	MS
		Methoxychlor	4.3	U	ng/L	P370542	
		Mirex	2.1	U	ng/L	P370542	
		Permethrin	11	U	ng/L	P370542	
		Trans-Nonachlor**	1.1	U	ng/L	P370542	
		Trifluralin	2.7	U	ng/L	P370542	
	EPA 8276	Chlordane	5.3	U	ng/L	P370542	

Field ID: G2SW0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117257	EPA 8276	Toxaphene	32	U	ng/L	P370542	
2117260	EPA 8270E	Acetochlor	0.26	U	ng/L	P370470	
		Alachlor	0.26	U	ng/L	P370470	
		Ametryn	0.62	U	ng/L	P370470	MS
		Atrazine	1.4		ng/L	P370470	
		Atrazine Desethyl	1.5	U	ng/L	P370470	RPD
		Azinphos Methyl	5.2	U	ng/L	P370470	
		Bromacil	3.3		ng/L	P370470	
		Butylate	0.41	U	ng/L	P370470	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P370470	
		Chlorpyrifos Methyl	0.10	U	ng/L	P370470	
		Cyanazine	3.4	UJ	ng/L	P370470	RPD
		Demeton	7.2	U	ng/L	P370470	
		Diazinon	0.29	I	ng/L	P370470	
		Dimethenamid**	0.10	U	ng/L	P370470	
		Disulfoton	0.52	U	ng/L	P370470	
		Dithiopyr**	0.10	U	ng/L	P370470	
		EPTC	1.3	U	ng/L	P370470	
		Ethion	0.15	U	ng/L	P370470	
		Ethoprop	0.10	U	ng/L	P370470	
		Fenamiphos	0.52	U	ng/L	P370470	MS
		Fipronil	0.26	U	ng/L	P370470	RPD
		Fipronil Desulfinyl**	0.23	I	ng/L	P370470	RPD
		Fipronil Sulfide	0.29	I	ng/L	P370470	MS, RPD
		Fipronil Sulfone	0.30	I	ng/L	P370470	RPD
		Fonofos	0.21	U	ng/L	P370470	
		Hexazinone	7.2		ng/L	P370470	
		Malathion	0.36	U	ng/L	P370470	
		Metalaxyl	5.3		ng/L	P370470	
		Metolachlor	0.52	U	ng/L	P370470	
		Metribuzin	1.1	IJ	ng/L	P370470	RPD
		Mevinphos	0.52	U	ng/L	P370470	
		Molinate	0.31	U	ng/L	P370470	
		Norflurazon	3.3		ng/L	P370470	RPD
		Oxadiazon**	0.75		ng/L	P370470	
		Parathion Ethyl	0.26	U	ng/L	P370470	
		Parathion Methyl	0.57	U	ng/L	P370470	
		Pendimethalin	1.0	U	ng/L	P370470	
		Phorate	0.26	U	ng/L	P370470	
		Prodiamine**	0.18	U	ng/L	P370470	
		Prometon	0.93	U	ng/L	P370470	
		Prometryn	0.21	U	ng/L	P370470	
		Simazine	0.52	U	ng/L	P370470	
		Tebuconazole**	0.52	U	ng/L	P370470	
		Terbufos	0.10	U	ng/L	P370470	

Field ID: G2SW0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117260	EPA 8270E	Terbuthylazine	0.44	U	ng/L	P370470	
2117265	EPA 200.7 Rev. 4.4	Barium	6.7		ug/L	P370486	
		Calcium	21.6		mg/L	P370486	
		Iron	680		ug/L	P370486	
		Magnesium	3.84		mg/L	P370486	
		Potassium	3.6		mg/L	P370486	
		Sodium	12.6		mg/L	P370486	
		Zinc	5.0	U	ug/L	P370486	
	EPA 200.8 Rev. 5.4	Aluminum	303		ug/L	P370486	
		Antimony	0.11	I	ug/L	P370486	
		Arsenic	1.36		ug/L	P370486	
		Boron**	37.4		ug/L	P370486	
		Cadmium	0.040	I	ug/L	P370486	
		Chromium	1.2	I	ug/L	P370486	
		Copper	1.22		ug/L	P370486	
		Lead	0.65		ug/L	P370486	
		Nickel	0.89	I	ug/L	P370486	
		Selenium	0.20	U	ug/L	P370486	
		Silver	0.010	U	ug/L	P370486	
		Thallium	0.10	U	ug/L	P370486	

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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: Refer to the narrative for an explanation of QC Codes.
EPA 8270E: MS accuracy for simazine, atrazine, hexazinone, and fipronil sulfone not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.
EPA 200.8 Rev. 5.4: The aluminum result was confirmed on 09/21/2019.

Sample Location: Baker Creek @ Thonotosassa Rd **Collection Date/Time: 09/09/2019 10:25**

Field ID: G2SW0012_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117223	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P370435	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P370545	
		Sulfate	8.2		mg SO4/L	P370548	
	SM 2120 B	Color (true)	190		PCU	P370439	
	SM 2320 B-97	Total Alkalinity	51		mg CaCO3/L	P370694	
	SM 2540 C-97	TDS	122	A	mg/L	P371058	
	SM 2540 D-97	TSS	7	IA	mg/L	P370873	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P370697	
2117226	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P370516	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P370503	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P370464	
	EPA 365.1 Rev. 2.0	Total-P	0.60		mg P/L	P370538	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P370527	
2117229	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.43		mg P/L	P370432	
2117250	EPA 8321B	Aldicarb	0.020	U	ug/L	P370422	
		Aldicarb Sulfone	0.0020	U	ug/L	P370422	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P370422	
		Carbaryl	0.0020	U	ug/L	P370422	
		Carbofuran	0.0020	U	ug/L	P370422	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P370422	
		Methiocarb	0.0020	U	ug/L	P370422	
		Methomyl	0.0020	U	ug/L	P370422	
		Oxamyl	0.030		ug/L	P370422	
		Propoxur	0.0020	U	ug/L	P370422	
2117253		Acesulfame K**	0.17	I	ug/L	P370512	
		2,4-D	0.015		ug/L	P370371	MS
		AMPA**	1.0		ug/L	P370512	
		Sucralose**	0.81		ug/L	P370512	MS
		Acetaminophen**	0.0080	U	ug/L	P370371	
		Endothall**	0.25	U	ug/L	P370512	
		Acetamiprid**	0.0020	U	ug/L	P370371	
		Glufosinate**	0.10	U	ug/L	P370512	
		Glyphosate**	1.8		ug/L	P370512	
		Afidopyropen**	0.0020	UJ	ug/L	P370371	
		Bentazon	0.018		ug/L	P370371	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370371	
		Carbamazepine**	0.0012	I	ug/L	P370371	
		Clothianidin**	0.0062	I	ug/L	P370371	
		Dinotefuran**	0.0024	I	ug/L	P370371	
		Diuron	0.020		ug/L	P370371	
		Fenuron	0.016	U	ug/L	P370371	
		Fluridone**	0.0044		ug/L	P370371	
		Imazapyr**	0.14		ug/L	P370371	

Field ID: G2SW0012_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117253	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P370371	
		Ibuprofen**	0.020	U	ug/L	P370371	
		Imidacloprid	0.022		ug/L	P370371	MS
		Linuron	0.0040	U	ug/L	P370371	
		Mandestrobin**	0.0020	UJ	ug/L	P370371	
		MCPP	0.0020	U	ug/L	P370371	MS
		Naproxen**	0.0080	U	ug/L	P370371	
		Primidone**	0.0040	U	ug/L	P370371	
		Pyraclostrobin**	0.0020	U	ug/L	P370371	
		Thiamethoxam**	0.018		ug/L	P370371	
		Tolfenpyrad**	0.0020	U	ug/L	P370371	
		Triclopyr**	0.0040	U	ug/L	P370371	
2117258	EPA 8270E	Aldrin	4.1	U	ng/L	P370542	
		Alpha-BHC	2.0	U	ng/L	P370542	
		Alpha-Chlordane	1.0	U	ng/L	P370542	
		Beta-BHC	10	U	ng/L	P370542	
		Bifenthrin**	4.1	U	ng/L	P370542	
		Delta-BHC	8.2	U	ng/L	P370542	
		Gamma-BHC	8.2	U	ng/L	P370542	
		Carbophenothion	10	U	ng/L	P370542	
		Chlorothalonil	2.0	U	ng/L	P370542	
		Cis-Nonachlor**	1.0	U	ng/L	P370542	
		Cypermethrin	20	U	ng/L	P370542	
		DDD-p,p'	6.1	U	ng/L	P370542	
		DDE-p,p'	6.1	U	ng/L	P370542	
		DDT-p,p'	7.2	U	ng/L	P370542	
		Dicofol	31	U	ng/L	P370542	
		Dieldrin	4.1	U	ng/L	P370542	
		Endosulfan I	4.1	U	ng/L	P370542	
		Endosulfan II	4.1	U	ng/L	P370542	
		Endosulfan Sulfate	2.0	U	ng/L	P370542	
		Endrin	2.0	U	ng/L	P370542	
		Endrin Aldehyde	2.0	U	ng/L	P370542	
		Endrin Ketone	2.0	U	ng/L	P370542	
		Ethalfluralin**	3.1	U	ng/L	P370542	
		Gamma-Chlordane	1.0	U	ng/L	P370542	
		Heptachlor	1.5	U	ng/L	P370542	
		Heptachlor Epoxide	2.0	U	ng/L	P370542	
		Hexachlorobenzene	2.0	U	ng/L	P370542	MS
		Methoxychlor	4.1	U	ng/L	P370542	
		Mirex	2.0	U	ng/L	P370542	
		Permethrin	10	U	ng/L	P370542	
		Trans-Nonachlor**	1.0	U	ng/L	P370542	
		Trifluralin	2.6	U	ng/L	P370542	
	EPA 8276	Chlordane	5.1	U	ng/L	P370542	

Field ID: G2SW0012_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117258	EPA 8276	Toxaphene	31	U	ng/L	P370542	
2117261	EPA 8270E	Acetochlor	0.25	U	ng/L	P370470	
		Alachlor	0.25	U	ng/L	P370470	
		Ametryn	0.61	U	ng/L	P370470	MS
		Atrazine	1.6		ng/L	P370470	
		Atrazine Desethyl	1.5	U	ng/L	P370470	RPD
		Azinphos Methyl	5.1	U	ng/L	P370470	
		Bromacil	3.0		ng/L	P370470	
		Butylate	0.41	U	ng/L	P370470	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P370470	
		Chlorpyrifos Methyl	0.10	U	ng/L	P370470	
		Cyanazine	3.3	UJ	ng/L	P370470	RPD
		Demeton	7.1	U	ng/L	P370470	
		Diazinon	0.28	I	ng/L	P370470	
		Dimethenamid**	0.10	U	ng/L	P370470	
		Disulfoton	0.51	U	ng/L	P370470	
		Dithiopyr**	0.10	U	ng/L	P370470	
		EPTC	1.3	U	ng/L	P370470	
		Ethion	0.15	U	ng/L	P370470	
		Ethoprop	0.10	U	ng/L	P370470	
		Fenamiphos	0.51	U	ng/L	P370470	MS
		Fipronil	0.25	U	ng/L	P370470	RPD
		Fipronil Desulfinyl**	0.25	I	ng/L	P370470	RPD
		Fipronil Sulfide	0.30	I	ng/L	P370470	MS, RPD
		Fipronil Sulfone	0.31	I	ng/L	P370470	RPD
		Fonofos	0.20	U	ng/L	P370470	
		Hexazinone	7.6		ng/L	P370470	
		Malathion	0.36	U	ng/L	P370470	
		Metalaxyl	5.4		ng/L	P370470	
		Metolachlor	0.51	U	ng/L	P370470	
		Metribuzin	1.2	IJ	ng/L	P370470	RPD
		Mevinphos	0.51	U	ng/L	P370470	
		Molinate	0.31	U	ng/L	P370470	
		Norflurazon	3.4		ng/L	P370470	RPD
		Oxadiazon**	0.76		ng/L	P370470	
		Parathion Ethyl	0.25	U	ng/L	P370470	
		Parathion Methyl	0.56	U	ng/L	P370470	
		Pendimethalin	1.0	U	ng/L	P370470	
		Phorate	0.25	U	ng/L	P370470	
		Prodiamine**	0.18	U	ng/L	P370470	
		Prometon	0.92	U	ng/L	P370470	
		Prometryn	0.20	U	ng/L	P370470	
		Simazine	0.51	U	ng/L	P370470	
		Tebuconazole**	0.51	U	ng/L	P370470	
		Terbufos	0.10	U	ng/L	P370470	

Field ID: G2SW0012_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117261	EPA 8270E	Terbuthylazine	0.43	U	ng/L	P370470	
2117266	EPA 200.7 Rev. 4.4	Barium	7.6		ug/L	P370486	
		Calcium	21.7		mg/L	P370486	
		Iron	710		ug/L	P370486	
		Magnesium	3.83		mg/L	P370486	
		Potassium	3.6		mg/L	P370486	
		Sodium	12.7		mg/L	P370486	
		Zinc	5.0	U	ug/L	P370486	
	EPA 200.8 Rev. 5.4	Aluminum	373		ug/L	P370486	
		Antimony	0.12	I	ug/L	P370486	
		Arsenic	1.41		ug/L	P370486	
		Boron**	36.7		ug/L	P370486	
		Cadmium	0.055	I	ug/L	P370486	
		Chromium	1.3	I	ug/L	P370486	
		Copper	1.36		ug/L	P370486	
		Lead	0.79		ug/L	P370486	
		Nickel	0.88	I	ug/L	P370486	
		Selenium	0.20	U	ug/L	P370486	
		Silver	0.010	U	ug/L	P370486	
		Thallium	0.10	U	ug/L	P370486	

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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: MS accuracy for simazine, atrazine, hexazinone, and fipronil sulfone not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.
EPA 200.8 Rev. 5.4: The aluminum result was confirmed on 09/21/2019.

Sample Location: Field_Blank **Collection Date/Time: 09/09/2019 10:30**

Field ID: FB 09092019 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117224	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P370435	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P370545	
		Sulfate	0.20	U	mg SO4/L	P370548	
	SM 2120 B	Color (true)	2.5	U	PCU	P370440	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P370694	
	SM 2540 C-97	TDS	15	U	mg/L	P371058	
	SM 2540 D-97	TSS	2	U	mg/L	P370873	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P370697	
2117227	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P370516	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P370503	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P370465	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P370538	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P370527	
2117230	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P370432	
2117251	EPA 8321B	Aldicarb	0.020	U	ug/L	P370422	
		Aldicarb Sulfone	0.0020	U	ug/L	P370422	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P370422	
		Carbaryl	0.0020	U	ug/L	P370422	
		Carbofuran	0.0020	U	ug/L	P370422	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P370422	
		Methiocarb	0.0020	U	ug/L	P370422	
		Methomyl	0.0020	U	ug/L	P370422	
		Oxamyl	0.0020	U	ug/L	P370422	
		Propoxur	0.0020	U	ug/L	P370422	
2117254		Acesulfame K**	0.10	U	ug/L	P370512	
		2,4-D	0.0020	U	ug/L	P370371	MS
		AMPA**	0.10	U	ug/L	P370512	
		Sucralose**	0.010	U	ug/L	P370512	MS
		Acetaminophen**	0.0080	U	ug/L	P370371	
		Endothall**	0.25	U	ug/L	P370512	
		Acetamiprid**	0.0020	U	ug/L	P370371	
		Glufosinate**	0.10	U	ug/L	P370512	
		Glyphosate**	0.10	U	ug/L	P370512	
		Afidopyropen**	0.0020	UJ	ug/L	P370371	
		Bentazon	8.0E-04	U	ug/L	P370371	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370371	
		Carbamazepine**	8.0E-04	U	ug/L	P370371	
		Clothianidin**	0.0020	U	ug/L	P370371	
		Dinotefuran**	0.0020	U	ug/L	P370371	
		Diuron	0.0020	U	ug/L	P370371	
		Fenuron	0.016	U	ug/L	P370371	
		Fluridone**	8.0E-04	U	ug/L	P370371	
		Imazapyr**	0.0040	U	ug/L	P370371	

Field ID: FB 09092019 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117254	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P370371	
		Ibuprofen**	0.020	U	ug/L	P370371	
		Imidacloprid	0.0020	U	ug/L	P370371	MS
		Linuron	0.0040	U	ug/L	P370371	
		Mandestrobin**	0.0020	UJ	ug/L	P370371	
		MCPP	0.0020	U	ug/L	P370371	MS
		Naproxen**	0.0080	U	ug/L	P370371	
		Primidone**	0.0040	U	ug/L	P370371	
		Pyraclostrobin**	0.0020	U	ug/L	P370371	
		Thiamethoxam**	0.0020	U	ug/L	P370371	
		Tolfenpyrad**	0.0020	U	ug/L	P370371	
		Triclopyr**	0.0040	U	ug/L	P370371	
2117259	EPA 8270E	Aldrin	4.3	U	ng/L	P370542	
		Alpha-BHC	2.1	U	ng/L	P370542	
		Alpha-Chlordane	1.1	U	ng/L	P370542	
		Beta-BHC	11	U	ng/L	P370542	
		Bifenthrin**	4.3	U	ng/L	P370542	
		Delta-BHC	8.5	U	ng/L	P370542	
		Gamma-BHC	8.5	U	ng/L	P370542	
		Carbophenothion	11	U	ng/L	P370542	
		Chlorothalonil	2.1	U	ng/L	P370542	
		Cis-Nonachlor**	1.1	U	ng/L	P370542	
		Cypermethrin	21	U	ng/L	P370542	
		DDD-p,p'	6.4	U	ng/L	P370542	
		DDE-p,p'	6.4	U	ng/L	P370542	
		DDT-p,p'	7.4	U	ng/L	P370542	
		Dicofol	32	U	ng/L	P370542	
		Dieldrin	4.3	U	ng/L	P370542	
		Endosulfan I	4.3	U	ng/L	P370542	
		Endosulfan II	4.3	U	ng/L	P370542	
		Endosulfan Sulfate	2.1	U	ng/L	P370542	
		Endrin	2.1	U	ng/L	P370542	
		Endrin Aldehyde	2.1	U	ng/L	P370542	
		Endrin Ketone	2.1	U	ng/L	P370542	
		Ethalfluralin**	3.2	U	ng/L	P370542	
		Gamma-Chlordane	1.1	U	ng/L	P370542	
		Heptachlor	1.6	U	ng/L	P370542	
		Heptachlor Epoxide	2.1	U	ng/L	P370542	
		Hexachlorobenzene	2.1	U	ng/L	P370542	MS
		Methoxychlor	4.3	U	ng/L	P370542	
		Mirex	2.1	U	ng/L	P370542	
		Permethrin	11	U	ng/L	P370542	
		Trans-Nonachlor**	1.1	U	ng/L	P370542	
		Trifluralin	2.7	U	ng/L	P370542	
	EPA 8276	Chlordane	5.3	U	ng/L	P370542	

Field ID: FB 09092019 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117259	EPA 8276	Toxaphene	32	U	ng/L	P370542	
2117262	EPA 8270E	Acetochlor	0.26	U	ng/L	P370470	
		Alachlor	0.26	U	ng/L	P370470	
		Ametryn	0.61	U	ng/L	P370470	MS
		Atrazine	0.26	U	ng/L	P370470	
		Atrazine Desethyl	1.5	U	ng/L	P370470	RPD
		Azinphos Methyl	5.1	U	ng/L	P370470	
		Bromacil	0.51	U	ng/L	P370470	
		Butylate	0.41	U	ng/L	P370470	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P370470	
		Chlorpyrifos Methyl	0.10	U	ng/L	P370470	
		Cyanazine	3.3	UJ	ng/L	P370470	RPD
		Demeton	7.1	U	ng/L	P370470	
		Diazinon	0.13	U	ng/L	P370470	
		Dimethenamid**	0.10	U	ng/L	P370470	
		Disulfoton	0.51	U	ng/L	P370470	
		Dithiopyr**	0.10	U	ng/L	P370470	
		EPTC	1.3	U	ng/L	P370470	
		Ethion	0.15	U	ng/L	P370470	
		Ethoprop	0.10	U	ng/L	P370470	
		Fenamiphos	0.51	U	ng/L	P370470	MS
		Fipronil	0.26	U	ng/L	P370470	RPD
		Fipronil Desulfinyl**	0.13	U	ng/L	P370470	RPD
		Fipronil Sulfide	0.15	U	ng/L	P370470	MS, RPD
		Fipronil Sulfone	0.15	U	ng/L	P370470	RPD
		Fonofos	0.20	U	ng/L	P370470	
		Hexazinone	0.51	U	ng/L	P370470	
		Malathion	0.36	U	ng/L	P370470	
		Metalaxyl	0.31	U	ng/L	P370470	
		Metolachlor	0.51	U	ng/L	P370470	
		Metribuzin	0.77	UJ	ng/L	P370470	RPD
		Mevinphos	0.51	U	ng/L	P370470	
		Molinate	0.31	U	ng/L	P370470	
		Norflurazon	0.51	U	ng/L	P370470	RPD
		Oxadiazon**	0.10	U	ng/L	P370470	
		Parathion Ethyl	0.26	U	ng/L	P370470	
		Parathion Methyl	0.56	U	ng/L	P370470	
		Pendimethalin	1.0	U	ng/L	P370470	
		Phorate	0.26	U	ng/L	P370470	
		Prodiamine**	0.18	U	ng/L	P370470	
		Prometon	0.92	U	ng/L	P370470	
		Prometryn	0.20	U	ng/L	P370470	
		Simazine	0.51	U	ng/L	P370470	
		Tebuconazole**	0.51	U	ng/L	P370470	
		Terbufos	0.10	U	ng/L	P370470	

Field ID: FB 09092019 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117262	EPA 8270E	Terbuthylazine	0.43	U	ng/L	P370470	
2117267	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P370486	
		Calcium	0.075	U	mg/L	P370486	
		Iron	30	U	ug/L	P370486	
		Magnesium	0.040	U	mg/L	P370486	
		Potassium	0.30	U	mg/L	P370486	
		Sodium	0.50	U	mg/L	P370486	
		Zinc	5.0	U	ug/L	P370486	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P370486	
		Antimony	0.050	U	ug/L	P370486	
		Arsenic	0.050	U	ug/L	P370486	
		Boron**	2.0	U	ug/L	P370486	
		Cadmium	0.020	U	ug/L	P370486	
		Chromium	0.40	U	ug/L	P370486	
		Copper	0.40	U	ug/L	P370486	
		Lead	0.20	U	ug/L	P370486	
		Nickel	0.50	U	ug/L	P370486	
		Selenium	0.20	U	ug/L	P370486	
		Silver	0.010	U	ug/L	P370486	
		Thallium	0.10	U	ug/L	P370486	

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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: MS accuracy for simazine, atrazine, hexazinone, and fipronil sulfone not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Bellows Lake Outlet **Collection Date/Time: 09/09/2019 11:10**

Field ID: G1SW0060 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117234	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P370435	
	EPA 300.0 Rev. 2.1	Chloride	7.5		mg Cl/L	P370545	
		Sulfate	5.7		mg SO4/L	P370548	
	SM 2120 B	Color (true)	42	A	PCU	P370439	
	SM 2320 B-97	Total Alkalinity	70		mg CaCO3/L	P370695	
	SM 2540 C-97	TDS	111	A	mg/L	P371059	
	SM 2540 D-97	TSS	24		mg/L	P370874	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P370698	
2117235	EPA 350.1 Rev. 2.0	Ammonia-N	0.52		mg N/L	P370669	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P370503	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P370465	
	EPA 365.1 Rev. 2.0	Total-P	0.077		mg P/L	P370538	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P370677	
2117236	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P370433	
2117256	EPA 8321B	Acesulfame K**	0.15	I	ug/L	P370512	
		2,4-D	0.089		ug/L	P370371	MS
		AMPA**	0.10	U	ug/L	P370512	
		Sucralose**	0.11		ug/L	P370512	MS
		Acetaminophen**	0.012	I	ug/L	P370371	
		Endothall**	0.25	U	ug/L	P370512	
		Acetamiprid**	0.0020	U	ug/L	P370371	
		Glufosinate**	0.10	U	ug/L	P370512	
		Glyphosate**	0.10	U	ug/L	P370512	
		Afidopyropen**	0.0020	UJ	ug/L	P370371	
		Bentazon	8.0E-04	U	ug/L	P370371	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370371	
		Carbamazepine**	8.0E-04	U	ug/L	P370371	
		Clothianidin**	0.0020	U	ug/L	P370371	
		Dinotefuran**	0.0021	I	ug/L	P370371	
		Diuron	0.15		ug/L	P370371	
		Fenuron	0.016	U	ug/L	P370371	
		Fluridone**	0.029		ug/L	P370371	
		Imazapyr**	0.040		ug/L	P370371	
		Hydrocodone**	0.0020	U	ug/L	P370371	
		Ibuprofen**	0.020	U	ug/L	P370371	
		Imidacloprid	0.0067	I	ug/L	P370371	MS
		Linuron	0.0040	U	ug/L	P370371	
		Mandestrobin**	0.0020	UJ	ug/L	P370371	
		MCPP	0.0037	I	ug/L	P370371	MS
		Naproxen**	0.0080	U	ug/L	P370371	
		Primidone**	0.0040	U	ug/L	P370371	
		Pyraclostrobin**	0.0020	U	ug/L	P370371	
		Thiamethoxam**	0.0020	U	ug/L	P370371	

Field ID: G1SW0060 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117256	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P370371	
		Triclopyr**	0.0040	U	ug/L	P370371	

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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: New River @ Morris Bridge Rd **Collection Date/Time: 09/09/2019 09:00**

Field ID: G2SW0061 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117231	EPA 180.1 Rev. 2.0	Turbidity	5.1	A	NTU	P370435	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P370545	
		Sulfate	1.5		mg SO4/L	P370548	
	SM 2120 B	Color (true)	240		PCU	P370439	
	SM 2320 B-97	Total Alkalinity	33		mg CaCO3/L	P370694	
	SM 2540 C-97	TDS	104		mg/L	P371058	
	SM 2540 D-97	TSS	8	I	mg/L	P370873	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P370697	
2117232	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P370669	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P370503	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P370465	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P370538	
	SM 5310 B-00	Organic Carbon	25		mg C/L	P370527	
2117233	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.053		mg P/L	P370432	
2117255	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P370512	
		2,4-D	0.12		ug/L	P370371	MS
		AMPA**	0.40	I	ug/L	P370512	
		Sucralose**	1.7		ug/L	P370512	MS
		Acetaminophen**	0.0080	U	ug/L	P370371	
		Endothall**	0.25	U	ug/L	P370512	
		Acetamiprid**	0.0020	U	ug/L	P370371	
		Glufosinate**	0.10	U	ug/L	P370512	
		Glyphosate**	0.18	I	ug/L	P370512	
		Afidopyropen**	0.0020	UJ	ug/L	P370371	
		Bentazon	0.091		ug/L	P370371	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370371	
		Carbamazepine**	0.0020	I	ug/L	P370371	
		Clothianidin**	0.012		ug/L	P370371	
		Dinotefuran**	0.0020	U	ug/L	P370371	
		Diuron	0.0057	I	ug/L	P370371	
		Fenuron	0.016	U	ug/L	P370371	
		Fluridone**	0.036		ug/L	P370371	
		Imazapyr**	0.58		ug/L	P370371	
		Hydrocodone**	0.0020	U	ug/L	P370371	
		Ibuprofen**	0.020	U	ug/L	P370371	
		Imidacloprid	0.077		ug/L	P370371	MS
		Linuron	0.0040	U	ug/L	P370371	
		Mandestrobin**	0.0020	UJ	ug/L	P370371	
		MCPP	0.0020	U	ug/L	P370371	MS
		Naproxen**	0.0080	U	ug/L	P370371	
		Primidone**	0.0040	U	ug/L	P370371	
		Pyraclostrobin**	0.0020	U	ug/L	P370371	
		Thiamethoxam**	0.0020	U	ug/L	P370371	

Field ID: G2SW0061 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2117255	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P370371	
		Triclopyr**	0.0040	U	ug/L	P370371	

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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370435

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P370486

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: P370486

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: P370545

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370548

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370516

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370669

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370503

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370464

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370465

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370538

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370432

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370433

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

Reference Method: EPA 8270E
Batch ID: P370470

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P370470

Component	Result	Code	Units
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P370542

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P370542

Component	Result	Code	Units
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfluralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P370542

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

Reference Method: EPA 8321B
Batch ID: P370371

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P370371

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

Reference Method: EPA 8321B
Batch ID: P370422

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P370512

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: P370439

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P370440

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P370694

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P370695

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

Reference Method: SM 2540 C-97
Batch ID: P371058

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P371059

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P370873

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P370874

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P370697

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P370698

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P370527

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

Reference Method: SM 5310 B-00
Batch ID: P370677

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: P370486

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	108		P	85 - 115
Iron	106		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	109		P	85 - 115
Sodium	112		P	85 - 115
Zinc	99.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370486

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	105		P	85 - 115
Boron	94.7		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	105		P	85 - 115
Copper	103		P	85 - 115
Lead	104		P	85 - 115
Nickel	102		P	85 - 115
Selenium	102		P	85 - 115
Silver	106		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370545

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370548

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370669

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370503

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370464

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370465

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: P370538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	94.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370432

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370433

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

Reference Method: EPA 8270E
Batch ID: P370470

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.4	97.0	P/P	69 - 122
Alachlor	88.6	94.1	P/P	71 - 120
Ametryn	87.4	84.0	P/P	47 - 138
Atrazine	97.5	99.4	P/P	74 - 124
Atrazine Desethyl	103	80.1	P/P	38 - 138
Azinphos Methyl	108	108	P/P	69 - 154
Bromacil	66.7	83.1	P/P	39 - 121
Butylate	59.1	64.1	P/P	27 - 87.0
Chlorpyrifos Ethyl	93.7	103	P/P	69 - 118
Chlorpyrifos Methyl	98.8	94.0	P/P	70 - 120
Cyanazine	156	108	P/P	20 - 250
Demeton	66.3	65.2	P/P	39 - 118
Diazinon	100	91.8	P/P	68 - 127
Dimethenamid	87.7	97.1	P/P	66 - 125
Disulfoton	96.0	79.2	P/P	52 - 126
Dithiopyr	88.6	94.1	P/P	67 - 127

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P370470

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
EPTC	58.7	67.5	P/P	24 - 88.0
Ethion	94.2	106	P/P	51 - 132
Ethoprop	90.6	85.6	P/P	58 - 117
Fenamiphos	89.6	95.7	P/P	38 - 139
Fipronil	79.7	96.3	P/P	61 - 124
Fipronil Desulfinyl	80.0	92.2	P/P	47 - 120
Fipronil Sulfide	83.0	97.2	P/P	56 - 119
Fipronil Sulfone	75.3	96.4	P/P	50 - 117
Fonofos	94.1	82.5	P/P	60 - 121
Hexazinone	99.5	107	P/P	55 - 137
Malathion	99.2	98.5	P/P	66 - 126
Metalaxyl	90.9	97.7	P/P	33 - 140
Metolachlor	83.3	100	P/P	69 - 119
Metribuzin	168	101	P/P	31 - 238
Mevinphos	82.7	85.5	P/P	42 - 113
Molinate	76.1	74.4	P/P	32 - 96.0
Norflurazon	84.5	96.9	P/P	54 - 123
Oxadiazon	90.3	103	P/P	63 - 128
Parathion Ethyl	91.9	94.5	P/P	72 - 111
Parathion Methyl	100	97.7	P/P	74 - 126
Pendimethalin	91.9	90.1	P/P	61 - 131
Phorate	93.9	88.6	P/P	51 - 115
Prodiamine	83.3	84.6	P/P	38 - 144
Prometon	78.5	91.2	P/P	54 - 119
Prometryn	85.1	92.7	P/P	63 - 120
Simazine	108	102	P/P	75 - 126
Tebuconazole	75.7	96.4	P/P	20 - 119
Terbufos	94.7	84.2	P/P	64 - 116
Terbuthylazine	92.2	99.5	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P370542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	42.9	42.4	P/P	20 - 93.0
Alpha-BHC	117	107	P/P	55 - 133
Alpha-Chlordane	84.4	87.6	P/P	58 - 112
Beta-BHC	129	122	P/P	54 - 168
Bifenthrin	71.6	84.5	P/P	30 - 134
Carbophenothion	52.0	49.8	P/P	26 - 147
Chlorothalonil	115	120	P/P	20 - 155
Cis-Nonachlor	84.0	88.0	P/P	54 - 115
Cypermethrin	85.2	95.1	P/P	40 - 137
DDD-p,p'	92.3	93.1	P/P	65 - 129
DDE-p,p'	83.4	87.7	P/P	57 - 116
DDT-p,p'	98.2	103	P/P	53 - 133
Delta-BHC	127	119	P/P	59 - 178
Dicofol	78.8	74.1	P/P	24 - 138
Dieldrin	87.6	91.0	P/P	60 - 120
Endosulfan I	95.7	98.4	P/P	64 - 118
Endosulfan II	97.0	103	P/P	58 - 142
Endosulfan Sulfate	110	111	P/P	60 - 127

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P370542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	99.5	105	P/P	59 - 122
Endrin Aldehyde	113	110	P/P	49 - 132
Endrin Ketone	106	107	P/P	64 - 121
Ethalfluralin	90.2	91.8	P/P	60 - 126
Gamma-BHC	126	116	P/P	57 - 154
Gamma-Chlordane	74.7	78.0	P/P	56 - 110
Heptachlor	69.5	71.5	P/P	46 - 96.0
Heptachlor Epoxide	88.9	91.1	P/P	61 - 112
Hexachlorobenzene	83.7	84.9	P/P	44 - 98.0
Methoxychlor	124	124	P/P	63 - 134
Mirex	55.8	63.3	P/P	45 - 100
Permethrin	71.6	76.1	P/P	53 - 115
Trans-Nonachlor	75.0	78.3	P/P	47 - 110
Trifluralin	91.1	93.2	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P370542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	82.3	77.6	P/P	43 - 128
Toxaphene	70.1	66.4	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P370371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	139		P	40 - 160
Acetaminophen	85.8		P	30 - 160
Acetamiprid	105		P	40 - 160
Afidopyropen	103		P	40 - 160
Bentazon	136		P	30 - 160
Benzovindiflupyr	88.9		P	40 - 160
Carbamazepine	108		P	40 - 160
Clothianidin	94.8		P	40 - 160
Dinotefuran	96.7		P	40 - 160
Diuron	128		P	40 - 160
Fenuron	110		P	40 - 160
Fluridone	98.9		P	40 - 160
Hydrocodone	101		P	40 - 160
Ibuprofen	85.5		P	30 - 160
Imazapyr	98.6		P	40 - 160
Imidacloprid	97.9		P	40 - 160
Linuron	74.8		P	40 - 160
Mandestrobin	90.4		P	40 - 160
MCPP	158		P	40 - 160
Naproxen	110		P	40 - 160
Primidone	82.0		P	40 - 160
Pyraclostrobin	84.2		P	30 - 160
Thiamethoxam	110		P	40 - 160
Tolfenpyrad	65.9		P	40 - 160
Triclopyr	116		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P370422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	109		P	40 - 160
Aldicarb	113		P	30 - 160
Aldicarb Sulfone	105		P	40 - 160
Aldicarb Sulfoxide	105		P	40 - 160
Carbaryl	113		P	40 - 160
Carbofuran	93.0		P	40 - 160
Methiocarb	80.4		P	40 - 160
Methomyl	90.6		P	40 - 160
Oxamyl	112		P	40 - 160
Propoxur	95.4		P	40 - 160

Reference Method: EPA 8321B
Batch ID: P370512

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	128		P	40 - 150
AMPA	122		P	40 - 150
Endothall	94.1		P	40 - 150
Glufosinate	119		P	40 - 150
Glyphosate	123		P	40 - 140
Sucralose	146		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P370439

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

Reference Method: SM 2120 B
Batch ID: P370440

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.9		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P370694

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

Reference Method: SM 2320 B-97
Batch ID: P370695

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

Reference Method: SM 4500 F-C-97
Batch ID: P370697

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.9		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P370698

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P370527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	107		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P370677

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	104		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P370486

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117141	Barium	101	101	P/P	80 - 120
2117141	Calcium	106	108	P/P	80 - 120
2117141	Iron	104	107	P/P	80 - 120
2117141	Magnesium	109	111	P/P	80 - 120
2117141	Potassium	114	116	P/P	80 - 120
2117141	Sodium	105	106	P/P	80 - 120
2117141	Zinc	99.4	99.2	P/P	80 - 120
2117363	Barium	100		P	80 - 120
2117363	Calcium	92.0		P	80 - 120
2117363	Iron	108		P	80 - 120
2117363	Magnesium	94.6		P	80 - 120
2117363	Potassium	96.7		P	80 - 120
2117363	Sodium	96.9		P	80 - 120
2117363	Zinc	98.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370486

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117141	Aluminum	102	103	P/P	80 - 120
2117141	Antimony	100	99.9	P/P	80 - 120
2117141	Arsenic	103	103	P/P	80 - 120
2117141	Boron	95.2	94.8	P/P	80 - 120
2117141	Cadmium	102	101	P/P	80 - 120
2117141	Chromium	106	102	P/P	80 - 120
2117141	Copper	104	104	P/P	80 - 120
2117141	Lead	104	105	P/P	80 - 120
2117141	Nickel	102	102	P/P	80 - 120
2117141	Selenium	102	102	P/P	80 - 120
2117141	Silver	107	104	P/P	80 - 120
2117141	Thallium	100	101	P/P	80 - 120
2117363	Aluminum	102		P	80 - 120
2117363	Antimony	102		P	80 - 120
2117363	Arsenic	104		P	80 - 120
2117363	Boron	95.8		P	80 - 120
2117363	Cadmium	103		P	80 - 120
2117363	Chromium	89.9		P	80 - 120
2117363	Copper	101		P	80 - 120
2117363	Lead	107		P	80 - 120
2117363	Nickel	102		P	80 - 120
2117363	Selenium	99.9		P	80 - 120
2117363	Silver	108		P	80 - 120
2117363	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2116911	Chloride	101	103	P/P	90 - 110
2117231	Chloride	101		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2116911	Sulfate	102	104	P/P	90 - 110
2117231	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117138	Ammonia-N	97.0	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117232	Ammonia-N	99.4	94.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370503

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117218	Kjeldahl Nitrogen	101	93.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117111	NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117235	NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117153	Total-P	92.7	93.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370432

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117139	O-Phosphate-P	98.0	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370433

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117333	O-Phosphate-P	98.4	98.8	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P370470

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117895	Acetochlor	95.1	87.3	P/P	63 - 129
2117895	Alachlor	95.4	91.4	P/P	65 - 127
2117895	Ametryn	215	198	F/F	40 - 164
2117895	Atrazine Desethyl	42.7	137	P/P	14 - 157
2117895	Azinphos Methyl	94.1	92.5	P/P	49 - 180
2117895	Bromacil	58.6	94.2	P/P	48 - 130
2117895	Butylate	61.8	71.3	P/P	10 - 94.0
2117895	Chlorpyrifos Ethyl	101	91.1	P/P	58 - 123
2117895	Chlorpyrifos Methyl	95.4	96.8	P/P	58 - 125
2117895	Cyanazine	89.8	155	P/P	24 - 253
2117895	Demeton	81.2	99.0	P/P	25 - 149
2117895	Diazinon	111	107	P/P	59 - 144
2117895	Dimethenamid	86.2	68.3	P/P	46 - 139
2117895	Disulfoton	105	109	P/P	54 - 132
2117895	Dithiopyr	90.4	83.3	P/P	64 - 130
2117895	EPTC	61.5	72.9	P/P	10 - 92.0
2117895	Ethion	89.0	84.3	P/P	30 - 148
2117895	Ethoprop	99.3	120	P/P	50 - 130
2117895	Fenamiphos	30.8	34.3	F/F	49 - 142
2117895	Fipronil	46.5	85.0	P/P	46 - 140
2117895	Fipronil Desulfinyl	36.7	83.2	P/P	30 - 121
2117895	Fipronil Sulfide	13.0	88.8	F/P	31 - 136
2117895	Fonofos	101	110	P/P	55 - 129
2117895	Malathion	89.4	89.9	P/P	56 - 135
2117895	Metalaxyl	92.3	85.3	P/P	54 - 135
2117895	Metolachlor	98.6	79.6	P/P	51 - 140
2117895	Metribuzin	180	224	P/P	45 - 254
2117895	Mevinphos	90.4	97.9	P/P	33 - 131
2117895	Molinate	80.5	82.2	P/P	14 - 98.0
2117895	Norflurazon	40.1	85.2	P/P	34 - 136
2117895	Oxadiazon	95.5	72.2	P/P	67 - 116
2117895	Parathion Ethyl	91.7	98.3	P/P	66 - 118
2117895	Parathion Methyl	99.8	109	P/P	64 - 136
2117895	Pendimethalin	95.9	95.0	P/P	59 - 144
2117895	Phorate	88.5	100	P/P	42 - 130
2117895	Prodiamine	83.2	83.8	P/P	42 - 148
2117895	Prometon	81.1	77.6	P/P	59 - 134
2117895	Prometryn	87.1	83.2	P/P	54 - 135
2117895	Tebuconazole	13.8	11.1	P/P	10 - 131
2117895	Terbufos	105	116	P/P	57 - 131
2117895	Terbuthylazine	97.9	99.4	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P370542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118790	Aldrin	64.7	63.7	P/P	25 - 92.0
2118790	Alpha-BHC	135	123	P/P	48 - 150
2118790	Alpha-Chlordane	100	96.5	P/P	50 - 115
2118790	Beta-BHC	147	136	P/P	39 - 184
2118790	Bifenthrin	96.3	94.6	P/P	46 - 116
2118790	Carbophenothion	99.7	93.7	P/P	27 - 180

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P370542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118790	Chlorothalonil	160	123	P/P	10 - 216
2118790	Cis-Nonachlor	96.2	91.2	P/P	55 - 112
2118790	Cypermethrin	110	109	P/P	40 - 153
2118790	DDD-p,p'	99.8	99.2	P/P	53 - 128
2118790	DDE-p,p'	91.7	89.9	P/P	48 - 116
2118790	DDT-p,p'	121	113	P/P	47 - 128
2118790	Delta-BHC	168	163	P/P	48 - 221
2118790	Dicofol	79.8	76.3	P/P	10 - 147
2118790	Dieldrin	99.2	96.9	P/P	48 - 128
2118790	Endosulfan I	106	99.2	P/P	58 - 126
2118790	Endosulfan II	107	99.3	P/P	50 - 150
2118790	Endosulfan Sulfate	113	113	P/P	56 - 130
2118790	Endrin	115	106	P/P	50 - 126
2118790	Endrin Aldehyde	84.8	98.6	P/P	12 - 145
2118790	Endrin Ketone	111	114	P/P	59 - 132
2118790	Ethalfluralin	104	99.5	P/P	65 - 122
2118790	Gamma-BHC	136	128	P/P	40 - 190
2118790	Gamma-Chlordane	92.7	89.1	P/P	50 - 112
2118790	Heptachlor	80.5	77.4	P/P	41 - 98.0
2118790	Heptachlor Epoxide	105	103	P/P	55 - 117
2118790	Hexachlorobenzene	94.7	88.4	F/P	47 - 91.0
2118790	Methoxychlor	103	96.8	P/P	55 - 133
2118790	Mirex	76.7	73.8	P/P	44 - 101
2118790	Permethrin	88.6	86.5	P/P	52 - 124
2118790	Trans-Nonachlor	89.1	83.1	P/P	53 - 99.0
2118790	Trifluralin	106	102	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P370542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117894	Chlordane	73.5	80.3	P/P	34 - 136
2117894	Toxaphene	59.1	61.8	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P370371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2116708	2,4-D	151	163	P/F	40 - 160
2116708	Acetaminophen	79.5	85.1	P/P	30 - 160
2116708	Acetamiprid	117	123	P/P	40 - 160
2116708	Afidopyropen	117	128	P/P	40 - 160
2116708	Bentazon	76.0	82.0	P/P	30 - 160
2116708	Benzovindiflupyr	92.3	97.9	P/P	40 - 160
2116708	Carbamazepine	94.9	102	P/P	40 - 160
2116708	Clothianidin	92.9	104	P/P	40 - 160
2116708	Dinotefuran	111	116	P/P	40 - 160
2116708	Diuron	109	113	P/P	40 - 160
2116708	Fenuron	88.4	95.6	P/P	40 - 160
2116708	Fluridone	91.8	96.6	P/P	40 - 160
2116708	Hydrocodone	83.2	105	P/P	40 - 160
2116708	Ibuprofen	82.8	82.2	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P370371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2116708	Imidacloprid	186	196	F/F	40 - 160
2116708	Linuron	68.5	70.5	P/P	40 - 160
2116708	Mandestrobin	88.4	93.9	P/P	40 - 160
2116708	MCPP	163	174	F/F	40 - 160
2116708	Naproxen	89.8	106	P/P	40 - 160
2116708	Primidone	89.4	94.4	P/P	40 - 160
2116708	Pyraclostrobin	91.7	90.9	P/P	30 - 160
2116708	Thiamethoxam	149	156	P/P	40 - 160
2116708	Tolfenpyrad	68.1	71.4	P/P	40 - 160
2116708	Triclopyr	137	125	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P370422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2116928	3-Hydroxycarbofuran	93.4	98.9	P/P	40 - 160
2116928	Aldicarb	78.3	93.7	P/P	30 - 160
2116928	Aldicarb Sulfone	101	110	P/P	40 - 160
2116928	Aldicarb Sulfoxide	52.3	55.4	P/P	40 - 160
2116928	Carbaryl	81.7	88.9	P/P	40 - 160
2116928	Carbofuran	65.3	68.7	P/P	40 - 160
2116928	Methiocarb	64.5	70.6	P/P	40 - 160
2116928	Methomyl	69.8	76.4	P/P	40 - 160
2116928	Oxamyl	92.4	96.4	P/P	40 - 160
2116928	Propoxur	67.0	70.5	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P370512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117252	Acesulfame K	94.2	124	P/P	40 - 150
2117252	AMPA	68.0	69.3	P/P	40 - 150
2117252	Endothall	69.5	73.0	P/P	40 - 150
2117252	Glufosinate	94.6	93.8	P/P	40 - 150
2117252	Glyphosate	123	113	P/P	40 - 140
2117252	Sucralose	165	153	F/F	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P370697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117355	Fluoride	99.8	99.2	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P370698

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117328	Fluoride	99.1	98.5	P/P	89 - 106

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P370527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2116909	Organic Carbon	104	106	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P370677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117305	Organic Carbon	106	108	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117231	Turbidity	0.195	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P370486

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117141	Barium	0.516	Spike	P	0 - 20
2117141	Calcium	1.66	Spike	P	0 - 20
2117141	Iron	2.12	Spike	P	0 - 20
2117141	Magnesium	1.66	Spike	P	0 - 20
2117141	Potassium	1.48	Spike	P	0 - 20
2117141	Sodium	0.624	Spike	P	0 - 20
2117141	Zinc	0.219	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370486

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117141	Aluminum	0.911	Spike	P	0 - 20
2117141	Antimony	0.429	Spike	P	0 - 20
2117141	Arsenic	0.00934	Spike	P	0 - 20
2117141	Boron	0.377	Spike	P	0 - 20
2117141	Cadmium	1.12	Spike	P	0 - 20
2117141	Chromium	4.28	Spike	P	0 - 20
2117141	Copper	0.277	Spike	P	0 - 20
2117141	Lead	0.367	Spike	P	0 - 20
2117141	Nickel	0.250	Spike	P	0 - 20
2117141	Selenium	0.300	Spike	P	0 - 20
2117141	Silver	3.01	Spike	P	0 - 20
2117141	Thallium	0.793	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2116911	Chloride	1.10	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2116911	Sulfate	1.72	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117138	Ammonia-N	3.51	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117232	Ammonia-N	2.88	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117218	Kjeldahl Nitrogen	5.71	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117111	NO2NO3-N	1.49	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117235	NO2NO3-N	1.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117153	Total-P	0.775	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117139	O-Phosphate-P	0.610	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117333	O-Phosphate-P	0.406	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117895	Acetochlor	8.55	Spike	P	0 - 30
2117895	Alachlor	4.30	Spike	P	0 - 30
2117895	Ametryn	8.39	Spike	P	0 - 30
2117895	Atrazine	7.43	Spike	P	0 - 30
2117895	Atrazine Desethyl	52.2	Spike	F	0 - 30
2117895	Azinphos Methyl	1.75	Spike	P	0 - 30
2117895	Bromacil	25.8	Spike	P	0 - 30
2117895	Butylate	14.3	Spike	P	0 - 30
2117895	Chlorpyrifos Ethyl	9.98	Spike	P	0 - 30
2117895	Chlorpyrifos Methyl	1.45	Spike	P	0 - 30
2117895	Cyanazine	53.1	Spike	F	0 - 30
2117895	Demeton	19.7	Spike	P	0 - 30
2117895	Diazinon	3.23	Spike	P	0 - 30
2117895	Dimethenamid	20.0	Spike	P	0 - 30
2117895	Disulfoton	4.29	Spike	P	0 - 30
2117895	Dithiopyr	7.47	Spike	P	0 - 30
2117895	EPTC	17.1	Spike	P	0 - 30
2117895	Ethion	5.41	Spike	P	0 - 30
2117895	Ethoprop	18.9	Spike	P	0 - 30
2117895	Fenamiphos	10.7	Spike	P	0 - 30
2117895	Fipronil	46.2	Spike	F	0 - 30
2117895	Fipronil Desulfinyl	51.0	Spike	F	0 - 30
2117895	Fipronil Sulfide	50.2	Spike	F	0 - 30
2117895	Fipronil Sulfone	49.7	Spike	F	0 - 30
2117895	Fonofos	8.55	Spike	P	0 - 30
2117895	Hexazinone	21.5	Spike	P	0 - 30
2117895	Malathion	0.466	Spike	P	0 - 30
2117895	Metalaxyl	7.90	Spike	P	0 - 30
2117895	Metolachlor	14.1	Spike	P	0 - 30
2117895	Metribuzin	20.3	Spike	P	0 - 30
2117895	Mevinphos	7.97	Spike	P	0 - 30
2117895	Molinate	2.10	Spike	P	0 - 30
2117895	Norflurazon	72.0	Spike	F	0 - 30
2117895	Oxadiazon	18.0	Spike	P	0 - 30
2117895	Parathion Ethyl	6.92	Spike	P	0 - 30
2117895	Parathion Methyl	9.04	Spike	P	0 - 30
2117895	Pendimethalin	0.934	Spike	P	0 - 30
2117895	Phorate	10.8	Spike	P	0 - 30
2117895	Prodiamine	0.719	Spike	P	0 - 30
2117895	Prometon	3.32	Spike	P	0 - 30
2117895	Prometryn	4.56	Spike	P	0 - 30
2117895	Simazine	12.3	Spike	P	0 - 30
2117895	Tebuconazole	12.5	Spike	P	0 - 30
2117895	Terbufos	9.97	Spike	P	0 - 30
2117895	Terbuthylazine	1.58	Spike	P	0 - 30
LFB	Acetochlor	6.00	LCS	P	0 - 30
LFB	Alachlor	5.97	LCS	P	0 - 30
LFB	Ametryn	4.03	LCS	P	0 - 30
LFB	Atrazine	1.90	LCS	P	0 - 30
LFB	Atrazine Desethyl	25.4	LCS	P	0 - 30
LFB	Azinphos Methyl	0.0515	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bromacil	21.9	LCS	P	0 - 30
LFB	Butylate	8.06	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.34	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.02	LCS	P	0 - 30
LFB	Cyanazine	36.4	LCS	F	0 - 30
LFB	Demeton	1.56	LCS	P	0 - 30
LFB	Diazinon	8.58	LCS	P	0 - 30
LFB	Dimethenamid	10.2	LCS	P	0 - 30
LFB	Disulfoton	19.1	LCS	P	0 - 30
LFB	Dithiopyr	5.94	LCS	P	0 - 30
LFB	EPTC	13.9	LCS	P	0 - 30
LFB	Ethion	12.1	LCS	P	0 - 30
LFB	Ethoprop	5.63	LCS	P	0 - 30
LFB	Fenamiphos	6.58	LCS	P	0 - 30
LFB	Fipronil	18.8	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	14.2	LCS	P	0 - 30
LFB	Fipronil Sulfide	15.8	LCS	P	0 - 30
LFB	Fipronil Sulfone	24.6	LCS	P	0 - 30
LFB	Fonofos	13.1	LCS	P	0 - 30
LFB	Hexazinone	7.31	LCS	P	0 - 30
LFB	Malathion	0.766	LCS	P	0 - 30
LFB	Metalaxyl	7.21	LCS	P	0 - 30
LFB	Metolachlor	18.4	LCS	P	0 - 30
LFB	Metribuzin	50.1	LCS	F	0 - 30
LFB	Mevinphos	3.33	LCS	P	0 - 30
LFB	Molinate	2.27	LCS	P	0 - 30
LFB	Norflurazon	13.7	LCS	P	0 - 30
LFB	Oxadiazon	13.1	LCS	P	0 - 30
LFB	Parathion Ethyl	2.79	LCS	P	0 - 30
LFB	Parathion Methyl	2.58	LCS	P	0 - 30
LFB	Pendimethalin	1.92	LCS	P	0 - 30
LFB	Phorate	5.80	LCS	P	0 - 30
LFB	Prodiamine	1.57	LCS	P	0 - 30
LFB	Prometon	15.0	LCS	P	0 - 30
LFB	Prometryn	8.58	LCS	P	0 - 30
LFB	Simazine	5.61	LCS	P	0 - 30
LFB	Tebuconazole	24.1	LCS	P	0 - 30
LFB	Terbufos	11.8	LCS	P	0 - 30
LFB	Terbuthylazine	7.68	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P370542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118790	Aldrin	1.58	Spike	P	0 - 30
2118790	Alpha-BHC	9.31	Spike	P	0 - 30
2118790	Alpha-Chlordane	3.55	Spike	P	0 - 30
2118790	Beta-BHC	7.53	Spike	P	0 - 30
2118790	Bifenthrin	1.74	Spike	P	0 - 30
2118790	Carbophenothion	6.24	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118790	Chlorothalonil	26.2	Spike	P	0 - 30
2118790	Cis-Nonachlor	5.35	Spike	P	0 - 30
2118790	Cypermethrin	1.31	Spike	P	0 - 30
2118790	DDD-p,p'	0.668	Spike	P	0 - 30
2118790	DDE-p,p'	2.06	Spike	P	0 - 30
2118790	DDT-p,p'	6.21	Spike	P	0 - 30
2118790	Delta-BHC	3.17	Spike	P	0 - 30
2118790	Dicofol	4.52	Spike	P	0 - 30
2118790	Dieldrin	2.30	Spike	P	0 - 30
2118790	Endosulfan I	6.28	Spike	P	0 - 30
2118790	Endosulfan II	7.62	Spike	P	0 - 30
2118790	Endosulfan Sulfate	0.622	Spike	P	0 - 30
2118790	Endrin	7.88	Spike	P	0 - 30
2118790	Endrin Aldehyde	15.0	Spike	P	0 - 30
2118790	Endrin Ketone	3.33	Spike	P	0 - 30
2118790	Ethalfluralin	4.33	Spike	P	0 - 30
2118790	Gamma-BHC	6.24	Spike	P	0 - 30
2118790	Gamma-Chlordane	3.99	Spike	P	0 - 30
2118790	Heptachlor	3.91	Spike	P	0 - 30
2118790	Heptachlor Epoxide	1.91	Spike	P	0 - 30
2118790	Hexachlorobenzene	6.87	Spike	P	0 - 30
2118790	Methoxychlor	5.72	Spike	P	0 - 30
2118790	Mirex	3.87	Spike	P	0 - 30
2118790	Permethrin	2.38	Spike	P	0 - 30
2118790	Trans-Nonachlor	6.98	Spike	P	0 - 30
2118790	Trifluralin	3.64	Spike	P	0 - 30
LFB	Aldrin	0.985	LCS	P	0 - 30
LFB	Alpha-BHC	9.63	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.71	LCS	P	0 - 30
LFB	Beta-BHC	5.60	LCS	P	0 - 30
LFB	Bifenthrin	16.5	LCS	P	0 - 30
LFB	Carbophenothion	4.16	LCS	P	0 - 30
LFB	Chlorothalonil	3.71	LCS	P	0 - 30
LFB	Cis-Nonachlor	4.68	LCS	P	0 - 30
LFB	Cypermethrin	11.0	LCS	P	0 - 30
LFB	DDD-p,p'	0.787	LCS	P	0 - 30
LFB	DDE-p,p'	4.95	LCS	P	0 - 30
LFB	DDT-p,p'	4.47	LCS	P	0 - 30
LFB	Delta-BHC	6.23	LCS	P	0 - 30
LFB	Dicofol	6.04	LCS	P	0 - 30
LFB	Dieldrin	3.85	LCS	P	0 - 30
LFB	Endosulfan I	2.76	LCS	P	0 - 30
LFB	Endosulfan II	5.98	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.633	LCS	P	0 - 30
LFB	Endrin	5.32	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.86	LCS	P	0 - 30
LFB	Endrin Ketone	0.390	LCS	P	0 - 30
LFB	Ethalfluralin	1.77	LCS	P	0 - 30
LFB	Gamma-BHC	7.51	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.31	LCS	P	0 - 30
LFB	Heptachlor	2.88	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Heptachlor Epoxide	2.46	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.44	LCS	P	0 - 30
LFB	Methoxychlor	0.550	LCS	P	0 - 30
LFB	Mirex	12.6	LCS	P	0 - 30
LFB	Permethrin	6.08	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.28	LCS	P	0 - 30
LFB	Trifluralin	2.26	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P370542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117894	Chlordane	8.88	Spike	P	0 - 30
2117894	Toxaphene	4.58	Spike	P	0 - 30
LFB	Chlordane	5.87	LCS	P	0 - 30
LFB	Toxaphene	5.45	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P370371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2116708	2,4-D	7.67	Spike	P	0 - 30
2116708	Acetaminophen	6.71	Spike	P	0 - 30
2116708	Acetamiprid	5.24	Spike	P	0 - 30
2116708	Afidopyropen	8.78	Spike	P	0 - 30
2116708	Bentazon	7.64	Spike	P	0 - 30
2116708	Benzovindiflupyr	5.89	Spike	P	0 - 30
2116708	Carbamazepine	7.28	Spike	P	0 - 30
2116708	Clothianidin	10.9	Spike	P	0 - 30
2116708	Dinotefuran	4.47	Spike	P	0 - 30
2116708	Diuron	3.20	Spike	P	0 - 30
2116708	Fenuron	7.91	Spike	P	0 - 30
2116708	Fluridone	5.07	Spike	P	0 - 30
2116708	Hydrocodone	23.2	Spike	P	0 - 30
2116708	Ibuprofen	0.724	Spike	P	0 - 30
2116708	Imazapyr	0.420	Spike	P	0 - 30
2116708	Imidacloprid	5.37	Spike	P	0 - 30
2116708	Linuron	2.87	Spike	P	0 - 30
2116708	Mandestrobin	6.03	Spike	P	0 - 30
2116708	MCPP	6.14	Spike	P	0 - 30
2116708	Naproxen	16.6	Spike	P	0 - 30
2116708	Primidone	5.41	Spike	P	0 - 30
2116708	Pyraclostrobin	0.861	Spike	P	0 - 30
2116708	Thiamethoxam	4.78	Spike	P	0 - 30
2116708	Tolfenpyrad	4.83	Spike	P	0 - 30
2116708	Triclopyr	9.51	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P370422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2116928	3-Hydroxycarbofuran	5.71	Spike	P	0 - 30
2116928	Aldicarb	17.8	Spike	P	0 - 30
2116928	Aldicarb Sulfone	7.96	Spike	P	0 - 30
2116928	Aldicarb Sulfoxide	5.81	Spike	P	0 - 30
2116928	Carbaryl	8.44	Spike	P	0 - 30
2116928	Carbofuran	5.11	Spike	P	0 - 30
2116928	Methiocarb	9.03	Spike	P	0 - 30
2116928	Methomyl	8.99	Spike	P	0 - 30
2116928	Oxamyl	4.25	Spike	P	0 - 30
2116928	Propoxur	5.05	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P370512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117252	Acesulfame K	25.8	Spike	P	0 - 30
2117252	AMPA	0.691	Spike	P	0 - 30
2117252	Endothall	4.86	Spike	P	0 - 30
2117252	Glufosinate	0.774	Spike	P	0 - 30
2117252	Glyphosate	3.36	Spike	P	0 - 30
2117252	Sucralose	6.19	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P370439

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117234	Color (true)	0.660	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P370440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117327	Color (true)	1.82	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P370694

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117355	Total Alkalinity	0.666	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P370695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117328	Total Alkalinity	0.530	Sample	P	0 - 2.8

Quality Assurance Report
Precision

Reference Method: SM 2540 C-97
Batch ID: P371058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117223	TDS	4.08	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P371059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117234	TDS	3.60	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P370697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117355	Fluoride	0.483	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P370698

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117328	Fluoride	0.482	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P370527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2116909	Organic Carbon	1.27	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P370677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117305	Organic Carbon	1.07	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: 2117249
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	112	P	30 - 160

Lab Sample ID: 2117250
Field Sample ID: G2SW0012_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	98.3	P	30 - 160

Lab Sample ID: 2117251
Field Sample ID: FB 09092019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	117	P	30 - 160

Lab Sample ID: 2117252
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	146	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.9	P	30 - 160
EPA 8321B	Diuron-d6	89.5	P	30 - 160
EPA 8321B	Endothall-d6	78.3	P	30 - 160
EPA 8321B	Endothall-d6	78.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.2	P	30 - 160
EPA 8321B	Primidone-d5	81.7	P	30 - 160
EPA 8321B	Sucralose-d6	143	P	30 - 160
EPA 8321B	Sucralose-d6	143	P	30 - 160

Lab Sample ID: 2117253
Field Sample ID: G2SW0012_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	146	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.7	P	30 - 160
EPA 8321B	Diuron-d6	93.3	P	30 - 160
EPA 8321B	Endothall-d6	81.8	P	30 - 160
EPA 8321B	Endothall-d6	81.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.3	P	30 - 160
EPA 8321B	Primidone-d5	84.5	P	30 - 160
EPA 8321B	Sucralose-d6	144	P	30 - 160
EPA 8321B	Sucralose-d6	144	P	30 - 160

Lab Sample ID: 2117254
Field Sample ID: FB 09092019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits

Quality Assurance Report
Surrogates

Lab Sample ID: 2117254
Field Sample ID: FB 09092019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.0	P	30 - 160
EPA 8321B	Diuron-d6	115	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.5	P	30 - 160
EPA 8321B	Primidone-d5	74.8	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160

Lab Sample ID: 2117255
Field Sample ID: G2SW0061

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	160	P	30 - 160
EPA 8321B	Acetaminophen-d4	79.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.9	P	30 - 160
EPA 8321B	Diuron-d6	94.3	P	30 - 160
EPA 8321B	Endothall-d6	84.6	P	30 - 160
EPA 8321B	Endothall-d6	84.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.4	P	30 - 160
EPA 8321B	Primidone-d5	91.2	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160

Lab Sample ID: 2117256
Field Sample ID: G1SW0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	142	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.5	P	30 - 160
EPA 8321B	Diuron-d6	97.7	P	30 - 160
EPA 8321B	Endothall-d6	93.7	P	30 - 160
EPA 8321B	Endothall-d6	93.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.8	P	30 - 160
EPA 8321B	Primidone-d5	90.0	P	30 - 160
EPA 8321B	Sucralose-d6	135	P	30 - 160
EPA 8321B	Sucralose-d6	135	P	30 - 160

Lab Sample ID: 2117257
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.2	P	39 - 109

Quality Assurance Report
Surrogates

Lab Sample ID: 2117257
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Tetrachloro-m-xylene	55.1	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	45.4	P	30 - 103
EPA 8276	PCNB	89.4	P	37 - 143

Lab Sample ID: 2117258
Field Sample ID: G2SW0012_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	86.2	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	46.4	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	44.1	P	30 - 103
EPA 8276	PCNB	83.8	P	37 - 143

Lab Sample ID: 2117259
Field Sample ID: FB 09092019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	82.8	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	78.3	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	50.1	P	30 - 103
EPA 8276	PCNB	99.4	P	37 - 143

Lab Sample ID: 2117260
Field Sample ID: G2SW0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	111	P	68 - 130
EPA 8270E	Terbufos-d10	85.6	P	61 - 136

Lab Sample ID: 2117261
Field Sample ID: G2SW0012_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	112	P	68 - 130
EPA 8270E	Terbufos-d10	91.1	P	61 - 136

Lab Sample ID: 2117262
Field Sample ID: FB 09092019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	114	P	68 - 130
EPA 8270E	Terbufos-d10	89.1	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A94105
Included Lab Sample IDs: 2117228, 2117229, 2117230, 2117233, 2117236

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	102	P/P	90 - 110
O-Phosphate-P	102	98.4	P/P	90 - 110
O-Phosphate-P	98.4	99.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A94106
Included Lab Sample IDs: 2117222, 2117223, 2117224, 2117231, 2117234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A94107
Included Lab Sample IDs: 2117222, 2117223, 2117224, 2117231, 2117234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115
Color (true)	99.8	100	P/P	90 - 115
Color (true)	100	100	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A94120
Included Lab Sample IDs: 2117225, 2117226, 2117227, 2117232, 2117235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A94145
Included Lab Sample IDs: 2117225, 2117226, 2117227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	90.5	101	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A94151
Included Lab Sample IDs: 2117225, 2117226, 2117227, 2117232

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	110	109	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A94159
Included Lab Sample IDs: 2117222, 2117223, 2117224, 2117231, 2117234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	101	102	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A94176
Included Lab Sample IDs: 2117265, 2117266, 2117267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	101	P/P	95 - 105
Barium	101	101	P/P	90 - 110
Calcium	101	102	P/P	95 - 105
Calcium	102	100	P/P	90 - 110
Iron	102	103	P/P	95 - 105
Iron	103	103	P/P	90 - 110
Magnesium	103	104	P/P	95 - 105
Magnesium	104	103	P/P	90 - 110
Potassium	102	102	P/P	95 - 105
Potassium	102	103	P/P	90 - 110
Sodium	100	104	P/P	95 - 105
Sodium	104	105	P/P	90 - 110
Zinc	99.6	98.3	P/P	90 - 110
Zinc	99.9	99.6	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A94202
Included Lab Sample IDs: 2117225, 2117226, 2117232, 2117235

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A94203
Included Lab Sample IDs: 2117225, 2117226, 2117227, 2117232, 2117235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A94214
Included Lab Sample IDs: 2117232, 2117235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	98.2	P/P	90 - 110
Ammonia-N	98.2	98.0	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A94219
Included Lab Sample IDs: 2117235

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

Reference Method: SM 2320 B-97
Run ID: A94232
Included Lab Sample IDs: 2117222, 2117223, 2117224, 2117231, 2117234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110
Total Alkalinity	104	102	P/P	90 - 110

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Reference Method: SM 4500 F-C-97
Run ID: A94232
Included Lab Sample IDs: 2117222, 2117223, 2117224, 2117231, 2117234

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110
Fluoride	101	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A94237
Included Lab Sample IDs: 2117227

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

Reference Method: EPA 8321B
Run ID: A94238
Included Lab Sample IDs: 2117252, 2117253, 2117254, 2117255, 2117256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	113	119	P/P	60 - 160
AMPA	119	117	P/P	60 - 160
Glufosinate	105	113	P/P	60 - 160
Glufosinate	113	120	P/P	60 - 160
Glyphosate	112	116	P/P	60 - 160
Glyphosate	116	120	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A94243
Included Lab Sample IDs: 2117252, 2117253, 2117254, 2117255, 2117256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	124	125	P/P	60 - 160
Acesulfame K	125	125	P/P	60 - 160
Endothall	91.7	98.2	P/P	60 - 160
Endothall	98.2	104	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94323
Included Lab Sample IDs: 2117265, 2117266, 2117267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	102	P/P	90 - 110
Aluminum	102	102	P/P	90 - 110
Antimony	97.5	96.5	P/P	90 - 110
Antimony	97.9	97.5	P/P	90 - 110
Arsenic	103	101	P/P	90 - 110
Arsenic	103	103	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Copper	103	103	P/P	90 - 110
Copper	103	102	P/P	90 - 110
Lead	104	104	P/P	90 - 110
Lead	104	105	P/P	90 - 110
Nickel	102	102	P/P	90 - 110
Nickel	103	102	P/P	90 - 110

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Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94323
Included Lab Sample IDs: 2117265, 2117266, 2117267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	100	99.4	P/P	90 - 110
Selenium	99.4	99.3	P/P	90 - 110
Thallium	92.6	95.0	P/P	90 - 110
Thallium	95.0	94.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94342
Included Lab Sample IDs: 2117265, 2117266, 2117267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	90.0	93.4	P/P	90 - 110
Boron	93.4	94.6	P/P	90 - 110
Chromium	91.0	91.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94372
Included Lab Sample IDs: 2117265, 2117266, 2117267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	102	103	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Silver	97.2	101	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A94396
Included Lab Sample IDs: 2117257, 2117258, 2117259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	104		P	80 - 120
Toxaphene	95.0		P	80 - 120

Reference Method: EPA 8321B
Run ID: A94400
Included Lab Sample IDs: 2117252, 2117253, 2117254, 2117255, 2117256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	113	P/P	50 - 150
2,4-D	113	101	P/P	50 - 150
3-Hydroxycarbofuran	119	120	P/P	60 - 150
Acetaminophen	101	104	P/P	60 - 160
Acetaminophen	104	109	P/P	60 - 160
Acetamiprid	110	114	P/P	50 - 150
Acetamiprid	114	108	P/P	50 - 150
Afidopyropen	109	109	P/P	50 - 150
Afidopyropen	125	109	P/P	50 - 150
Aldicarb	136	129	P/P	60 - 150
Aldicarb Sulfone	113	101	P/P	50 - 150
Aldicarb Sulfoxide	109	114	P/P	50 - 150
Bentazon	105	107	P/P	50 - 160
Bentazon	107	99.1	P/P	50 - 160
Benzovindiflupyr	100	97.9	P/P	50 - 150

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Reference Method: EPA 8321B
Run ID: A94400
Included Lab Sample IDs: 2117252, 2117253, 2117254, 2117255, 2117256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	97.9	101	P/P	50 - 150
Carbamazepine	106	109	P/P	60 - 150
Carbamazepine	108	106	P/P	60 - 150
Carbaryl	135	128	P/P	60 - 150
Carbofuran	115	117	P/P	50 - 150
Clothianidin	101	99.2	P/P	60 - 150
Clothianidin	99.2	101	P/P	60 - 150
Dinotefuran	86.4	95.1	P/P	50 - 150
Dinotefuran	91.8	86.4	P/P	50 - 150
Diuron	133	136	P/P	60 - 150
Diuron	136	131	P/P	60 - 150
Fenuron	115	116	P/P	60 - 150
Fenuron	116	114	P/P	60 - 150
Fluridone	107	103	P/P	60 - 160
Fluridone	107	107	P/P	60 - 160
Hydrocodone	107	109	P/P	60 - 150
Hydrocodone	109	109	P/P	60 - 150
Ibuprofen	76.7	91.3	P/P	50 - 160
Ibuprofen	91.3	84.1	P/P	50 - 160
Imazapyr	113	103	P/P	50 - 150
Imazapyr	90.1	113	P/P	50 - 150
Imidacloprid	100	103	P/P	60 - 150
Imidacloprid	103	88.9	P/P	60 - 150
Linuron	102	94.0	P/P	60 - 150
Linuron	94.0	98.7	P/P	60 - 150
Mandestrobin	111	108	P/P	50 - 150
Mandestrobin	113	111	P/P	50 - 150
MCPP	103	99.6	P/P	50 - 150
MCPP	99.1	103	P/P	50 - 150
Methiocarb	105	101	P/P	50 - 150
Methomyl	110	112	P/P	50 - 150
Naproxen	103	72.4	P/P	50 - 160
Naproxen	82.3	103	P/P	50 - 160
Oxamyl	113	115	P/P	50 - 150
Primidone	92.4	93.6	P/P	60 - 150
Primidone	94.7	92.4	P/P	60 - 150
Propoxur	113	110	P/P	50 - 150
Pyraclostrobin	104	111	P/P	60 - 150
Pyraclostrobin	111	103	P/P	60 - 150
Thiamethoxam	106	106	P/P	50 - 150
Thiamethoxam	107	106	P/P	50 - 150
Tolfenpyrad	106	115	P/P	60 - 150
Tolfenpyrad	115	111	P/P	60 - 150
Triclopyr	100	97.7	P/P	50 - 150
Triclopyr	97.7	82.8	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A94470
Included Lab Sample IDs: 2117260, 2117261, 2117262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

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Reference Method: EPA 8270E
Run ID: A94470
Included Lab Sample IDs: 2117260, 2117261, 2117262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	106		P	80 - 120
Ametryn	94.8		P	80 - 120
Atrazine	90.6		P	80 - 120
Atrazine Desethyl	95.3		P	80 - 120
Azinphos Methyl	98.3		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	95.3		P	80 - 120
Chlorpyrifos Ethyl	98.3		P	80 - 120
Chlorpyrifos Methyl	99.9		P	80 - 120
Cyanazine	84.2		P	80 - 120
Demeton	85.7		P	80 - 120
Diazinon	104		P	80 - 120
Dimethenamid	105		P	80 - 120
Disulfoton	98.7		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	99.9		P	80 - 120
Ethion	97.2		P	80 - 120
Ethoprop	98.0		P	80 - 120
Fenamiphos	94.7		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	96.7		P	80 - 120
Fipronil Sulfone	96.6		P	80 - 120
Fonofos	96.5		P	80 - 120
Hexazinone	100		P	80 - 120
Malathion	96.3		P	80 - 120
Metalaxyl	104		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	96.2		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	99.8		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	108		P	80 - 120
Parathion Ethyl	98.2		P	80 - 120
Parathion Methyl	99.0		P	80 - 120
Pendimethalin	96.6		P	80 - 120
Phorate	95.1		P	80 - 120
Prodiamine	95.4		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	104		P	80 - 120
Simazine	97.8		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	96.6		P	80 - 120
Terbuthylazine	99.2		P	80 - 120

Reference Method: EPA 8270E
Run ID: A94482
Included Lab Sample IDs: 2117257, 2117258, 2117259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

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Reference Method: EPA 8270E
Run ID: A94482
Included Lab Sample IDs: 2117257, 2117258, 2117259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	107		P	80 - 120
Alpha-BHC	115		P	80 - 120
Alpha-Chlordane	107		P	80 - 120
Beta-BHC	109		P	80 - 120
Bifenthrin	107		P	80 - 120
Carbophenothion	118		P	80 - 120
Chlorothalonil	103		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	108		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	105		P	80 - 120
DDT-p,p'	113		P	80 - 120
Delta-BHC	110		P	80 - 120
Dicofol	108		P	80 - 120
Dieldrin	94.2		P	80 - 120
Endosulfan I	107		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	105		P	80 - 120
Endrin	106		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	110		P	80 - 120
Ethalfluralin	114		P	80 - 120
Gamma-BHC	112		P	80 - 120
Gamma-Chlordane	106		P	80 - 120
Heptachlor	104		P	80 - 120
Heptachlor Epoxide	105		P	80 - 120
Hexachlorobenzene	116		P	80 - 120
Methoxychlor	112		P	80 - 120
Mirex	104		P	80 - 120
Permethrin	99.4		P	80 - 120
Trans-Nonachlor	105		P	80 - 120
Trifluralin	114		P	80 - 120

Reference Method: EPA 8321B
Run ID: A94533
Included Lab Sample IDs: 2117252, 2117253, 2117254, 2117255, 2117256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	133	139	P/P	60 - 160
Sucralose	139	138	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	MS
EPA 180.1 Rev. 2.0	Turbidity							0.195	
EPA 200.7 Rev. 4.4	Barium	101		101	101	100			0.516
	Calcium	108		106	108	92.0			1.66
	Iron	106		104	107	108			2.12
	Magnesium	111		109	111	94.6			1.66
	Potassium	109		114	116	96.7			1.48
	Sodium	112		105	106	96.9			0.624
	Zinc	99.5		99.4	99.2	98.9			0.219
EPA 200.8 Rev. 5.4	Aluminum	103		102	103	102			0.911
	Antimony	101		100	99.9	102			0.429
	Arsenic	105		103	103	104			0.0093
	Boron	94.7		95.2	94.8	95.8			0.377
	Cadmium	100		102	101	103			1.12
	Chromium	105		89.9	106	102			4.28
	Copper	103		104	104	101			0.277
	Lead	104		104	105	107			0.367
	Nickel	102		102	102	102			0.250
	Selenium	102		102	102	99.9			0.300
	Silver	106		107	104	108			3.01
	Thallium	101		100	101	105			0.793
EPA 300.0 Rev. 2.1	Chloride	100		101	103	101			1.10
	Sulfate	101		102	104	102			1.72
EPA 350.1 Rev. 2.0	Ammonia-N	94.0		97.0	101				3.51
	Ammonia-N	97.1		99.4	94.8				2.88
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		101	93.0				5.71
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	100				1.49
	NO2NO3-N	100		102	100				1.35
EPA 365.1 Rev. 2.0	Total-P	94.4		92.7	93.7				0.775
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.8		98.0	98.6				0.610
	O-Phosphate-P	100		98.4	98.8				0.406
EPA 8270E	Acetochlor	97.0	91.4	95.1	87.3		6.00		8.55
	Alachlor	94.1	88.6	95.4	91.4		5.97		4.30
	Aldrin	42.9	42.4	64.7	63.7		0.985		1.58
	Alpha-BHC	117	107	135	123		9.63		9.31
	Alpha-Chlordane	84.4	87.6	100	96.5		3.71		3.55
	Ametryn	84.0	87.4	215	198		4.03		8.39
	Atrazine	99.4	97.5				1.90		7.43
	Atrazine Desethyl	103	80.1	42.7	137		25.4		52.2
	Azinphos Methyl	108	108	94.1	92.5		0.0515		1.75
	Beta-BHC	129	122	147	136		5.60		7.53
	Bifenthrin	71.6	84.5	96.3	94.6		16.5		1.74
	Bromacil	66.7	83.1	58.6	94.2		21.9		25.8
	Butylate	59.1	64.1	61.8	71.3		8.06		14.3
	Carbophenothion	52.0	49.8	99.7	93.7		4.16		6.24
	Chlorothalonil	115	120	160	123		3.71		26.2
	Chlorpyrifos Ethyl	93.7	103	101	91.1		9.34		9.98
	Chlorpyrifos Methyl	94.0	98.8	95.4	96.8		5.02		1.45
	Cis-Nonachlor	84.0	88.0	96.2	91.2		4.68		5.35
	Cyanazine	108	156	89.8	155		36.4		53.1
	Cypermethrin	85.2	95.1	110	109		11.0		1.31
	DDD-p,p'	92.3	93.1	99.8	99.2		0.787		0.668
	DDE-p,p'	83.4	87.7	91.7	89.9		4.95		2.06
	DDT-p,p'	98.2	103	121	113		4.47		6.21
	Delta-BHC	127	119	168	163		6.23		3.17

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Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Demeton	65.2	66.3	81.2	99.0	1.56		19.7
	Diazinon	91.8	100	111	107	8.58		3.23
	Dicofol	78.8	74.1	79.8	76.3	6.04		4.52
	Dieldrin	87.6	91.0	99.2	96.9	3.85		2.30
	Dimethenamid	97.1	87.7	86.2	68.3	10.2		20.0
	Disulfoton	79.2	96.0	105	109	19.1		4.29
	Dithiopyr	94.1	88.6	90.4	83.3	5.94		7.47
	Endosulfan I	95.7	98.4	106	99.2	2.76		6.28
	Endosulfan II	97.0	103	107	99.3	5.98		7.62
	Endosulfan Sulfate	110	111	113	113	0.633		0.622
	Endrin	99.5	105	115	106	5.32		7.88
	Endrin Aldehyde	113	110	84.8	98.6	1.86		15.0
	Endrin Ketone	106	107	111	114	0.390		3.33
	EPTC	67.5	58.7	61.5	72.9	13.9		17.1
	Ethalfluralin	90.2	91.8	104	99.5	1.77		4.33
	Ethion	106	94.2	89.0	84.3	12.1		5.41
	Ethoprop	85.6	90.6	99.3	120	5.63		18.9
	Fenamiphos	89.6	95.7	30.8	34.3	6.58		10.7
	Fipronil	96.3	79.7	46.5	85.0	18.8		46.2
	Fipronil Desulfinyl	92.2	80.0	36.7	83.2	14.2		51.0
	Fipronil Sulfide	97.2	83.0	13.0	88.8	15.8		50.2
	Fipronil Sulfone	96.4	75.3			24.6		49.7
	Fonofos	82.5	94.1	101	110	13.1		8.55
	Gamma-BHC	126	116	136	128	7.51		6.24
	Gamma-Chlordane	74.7	78.0	92.7	89.1	4.31		3.99
	Heptachlor	69.5	71.5	80.5	77.4	2.88		3.91
	Heptachlor Epoxide	88.9	91.1	105	103	2.46		1.91
	Hexachlorobenzene	83.7	84.9	94.7	88.4	1.44		6.87
	Hexazinone	107	99.5			7.31		21.5
	Malathion	99.2	98.5	89.4	89.9	0.766		0.466
	Metalaxyl	97.7	90.9	92.3	85.3	7.21		7.90
	Methoxychlor	124	124	103	96.8	0.550		5.72
	Metolachlor	100	83.3	98.6	79.6	18.4		14.1
	Metribuzin	168	101	180	224	50.1		20.3
	Mevinphos	85.5	82.7	90.4	97.9	3.33		7.97
	Mirex	55.8	63.3	76.7	73.8	12.6		3.87
	Molinate	74.4	76.1	80.5	82.2	2.27		2.10
	Norflurazon	96.9	84.5	40.1	85.2	13.7		72.0
	Oxadiazon	103	90.3	95.5	72.2	13.1		18.0
	Parathion Ethyl	94.5	91.9	91.7	98.3	2.79		6.92
	Parathion Methyl	97.7	100	99.8	109	2.58		9.04
	Pendimethalin	90.1	91.9	95.9	95.0	1.92		0.934
	Permethrin	71.6	76.1	88.6	86.5	6.08		2.38
	Phorate	88.6	93.9	88.5	100	5.80		10.8
	Prodiamine	84.6	83.3	83.2	83.8	1.57		0.719
	Prometon	91.2	78.5	81.1	77.6	15.0		3.32
	Prometryn	92.7	85.1	87.1	83.2	8.58		4.56
	Simazine	102	108			5.61		12.3
	Tebuconazole	75.7	96.4	13.8	11.1	24.1		12.5
	Terbufos	84.2	94.7	105	116	11.8		9.97
	Terbuthylazine	99.5	92.2	97.9	99.4	7.68		1.58
	Trans-Nonachlor	75.0	78.3	89.1	83.1	4.28		6.98
	Trifluralin	91.1	93.2	106	102	2.26		3.64
EPA 8276	Chlordane	82.3	77.6	73.5	80.3	5.87		8.88

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8276	Toxaphene	70.1	66.4	59.1	61.8	5.45		4.58
EPA 8321B	2,4-D	139		151	163			7.67
	3-Hydroxycarbofuran	109		93.4	98.9			5.71
	Acesulfame K	128		94.2	124			25.8
	Acetaminophen	85.8		79.5	85.1			6.71
	Acetamiprid	105		117	123			5.24
	Afidopyropen	103		117	128			8.78
	Aldicarb	113		78.3	93.7			17.8
	Aldicarb Sulfone	105		101	110			7.96
	Aldicarb Sulfoxide	105		52.3	55.4			5.81
	AMPA	122		69.3	68.0			0.691
	Bentazon	136		76.0	82.0			7.64
	Benzovindiflupyr	88.9		92.3	97.9			5.89
	Carbamazepine	108		94.9	102			7.28
	Carbaryl	113		81.7	88.9			8.44
	Carbofuran	93.0		65.3	68.7			5.11
	Clothianidin	94.8		92.9	104			10.9
	Dinotefuran	96.7		111	116			4.47
	Diuron	128		109	113			3.20
	Endothall	94.1		69.5	73.0			4.86
	Fenuron	110		88.4	95.6			7.91
	Fluridone	98.9		91.8	96.6			5.07
	Glufosinate	119		93.8	94.6			0.774
	Glyphosate	123		123	113			3.36
	Hydrocodone	101		83.2	105			23.2
	Ibuprofen	85.5		82.8	82.2			0.724
	Imazapyr	98.6						0.420
	Imidacloprid	97.9		186	196			5.37
	Linuron	74.8		68.5	70.5			2.87
	Mandestrobin	90.4		88.4	93.9			6.03
	MCPP	158		163	174			6.14
	Methiocarb	80.4		64.5	70.6			9.03
	Methomyl	90.6		69.8	76.4			8.99
	Naproxen	110		89.8	106			16.6
	Oxamyl	112		92.4	96.4			4.25
	Primidone	82.0		89.4	94.4			5.41
	Propoxur	95.4		67.0	70.5			5.05
	Pyraclostrobin	84.2		91.7	90.9			0.861
	Sucralose	146		165	153			6.19
	Thiamethoxam	110		149	156			4.78
	Tolfenpyrad	65.9		68.1	71.4			4.83
	Triclopyr	116		137	125			9.51
SM 2120 B	Color (true)	101					0.660	
	Color (true)	97.9					1.82	
SM 2320 B-97	Total Alkalinity	104					0.666	
	Total Alkalinity	104					0.530	
SM 2540 C-97	TDS						4.08	
	TDS						3.60	
SM 4500 F-C-97	Fluoride	96.9		99.8	99.2			0.483
	Fluoride	98.3		99.1	98.5			0.482
SM 5310 B-00	Organic Carbon	107		104	106			1.27
	Organic Carbon	104		106	108			1.07

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2117222, 2117223, 2117224, 2117231, 2117234
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2117265, 2117266, 2117267
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2117265, 2117266, 2117267
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2117222, 2117223, 2117224, 2117231, 2117234
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2117222, 2117223, 2117224, 2117231, 2117234
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2117225, 2117226, 2117227, 2117232, 2117235
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2117225, 2117226, 2117227, 2117232, 2117235
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2117225, 2117226, 2117227, 2117232, 2117235
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2117225, 2117226, 2117227, 2117232, 2117235
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2117228, 2117229, 2117230, 2117233, 2117236
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2117257, 2117258, 2117259
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2117260, 2117261, 2117262
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2117257, 2117258, 2117259
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2117249, 2117250, 2117251
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2117252, 2117253, 2117254, 2117255, 2117256
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2117252, 2117253, 2117254, 2117255, 2117256
SM 2120 B / E31780	True Color measured at 450 nm	2117222, 2117223, 2117224, 2117231, 2117234
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2117222, 2117223, 2117224, 2117231, 2117234
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2117222, 2117223, 2117224, 2117231, 2117234
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2117222, 2117223, 2117224, 2117231, 2117234
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2117222, 2117223, 2117224, 2117231, 2117234
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2117225, 2117226, 2117227, 2117232, 2117235

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	09/10/2019			09/10/2019 16:59	Samantha Davila	2117222, 2117223, 2117224, 2117231, 2117234
EPA 200.7 Rev. 4.4	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/12/2019 13:53	Alexander Thompson	2117267
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/12/2019 15:35	Alexander Thompson	2117265
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/12/2019 15:42	Alexander Thompson	2117266
EPA 200.8 Rev. 5.4	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/17/2019 22:34	Robert K Palmer	2117267
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/18/2019 00:51	Robert K Palmer	2117265
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/18/2019 01:01	Robert K Palmer	2117266
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/18/2019 18:28	Robert K Palmer	2117267
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/18/2019 19:40	Robert K Palmer	2117265
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/18/2019 19:46	Robert K Palmer	2117266
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/19/2019 21:17	Robert K Palmer	2117267
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/19/2019 22:29	Robert K Palmer	2117265
	09/10/2019	09/11/2019 14:55	Elliott D. Healy	09/19/2019 22:35	Robert K Palmer	2117266
EPA 300.0 Rev. 2.1	09/10/2019			09/11/2019 22:38	Jhamieka S. Greenwood	2117231
	09/10/2019			09/12/2019 01:16	Jhamieka S. Greenwood	2117222
	09/10/2019			09/12/2019 01:28	Jhamieka S. Greenwood	2117223
	09/10/2019			09/12/2019 01:40	Jhamieka S. Greenwood	2117224
	09/10/2019			09/12/2019 01:52	Jhamieka S. Greenwood	2117234
EPA 350.1 Rev. 2.0	09/10/2019			09/11/2019 13:08	Ping Hua	2117225
	09/10/2019			09/11/2019 13:10	Ping Hua	2117226
	09/10/2019			09/11/2019 13:11	Ping Hua	2117227
	09/10/2019			09/13/2019 10:51	Ping Hua	2117232
	09/10/2019			09/13/2019 11:03	Ping Hua	2117235
EPA 351.2 Rev. 2.0	09/10/2019	09/11/2019 12:55	Sima Feizi	09/12/2019 15:33	Julia Storbeck	2117225
	09/10/2019	09/11/2019 12:55	Sima Feizi	09/12/2019 15:34	Julia Storbeck	2117226
	09/10/2019	09/11/2019 12:55	Sima Feizi	09/12/2019 15:36	Julia Storbeck	2117227
	09/10/2019	09/11/2019 12:55	Sima Feizi	09/12/2019 15:37	Julia Storbeck	2117232
	09/10/2019	09/11/2019 12:55	Sima Feizi	09/12/2019 15:39	Julia Storbeck	2117235
EPA 353.2 Rev. 2.0	09/10/2019			09/11/2019 08:58	Beverly Y. Sanders	2117225
	09/10/2019			09/11/2019 09:00	Beverly Y. Sanders	2117226
	09/10/2019			09/11/2019 09:07	Beverly Y. Sanders	2117235
	09/10/2019			09/11/2019 09:13	Beverly Y. Sanders	2117227
	09/10/2019			09/11/2019 09:14	Beverly Y. Sanders	2117232
EPA 365.1 Rev. 2.0	09/10/2019	09/12/2019 13:45	Lipi Saha	09/13/2019 13:21	Rosalyn Ballman	2117225
	09/10/2019	09/12/2019 13:45	Lipi Saha	09/13/2019 13:22	Rosalyn Ballman	2117226
	09/10/2019	09/12/2019 13:45	Lipi Saha	09/13/2019 13:23	Rosalyn Ballman	2117232
	09/10/2019	09/12/2019 13:45	Lipi Saha	09/13/2019 13:24	Rosalyn Ballman	2117235
	09/10/2019	09/12/2019 13:45	Lipi Saha	09/13/2019 17:19	Rosalyn Ballman	2117227
EPA 365.1 Rev. 2.0 dissolved	09/10/2019			09/10/2019 15:45	Jhamieka S. Greenwood	2117230, 2117233

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	09/10/2019			09/10/2019 16:02	Jhamieka S. Greenwood	2117236
	09/10/2019			09/10/2019 16:14	Jhamieka S. Greenwood	2117228
	09/10/2019			09/10/2019 16:15	Jhamieka S. Greenwood	2117229
EPA 8270E	09/10/2019	09/12/2019 08:00	Fe-Val Siddell	09/13/2019 16:19	Vandana T. Nagar	2117260
	09/10/2019	09/12/2019 08:00	Fe-Val Siddell	09/13/2019 16:45	Vandana T. Nagar	2117261
	09/10/2019	09/12/2019 08:00	Fe-Val Siddell	09/13/2019 17:11	Vandana T. Nagar	2117262
	09/10/2019	09/13/2019 08:00	Fe-Val Siddell	09/20/2019 21:14	Arthur Maknenko	2117257
	09/10/2019	09/13/2019 08:00	Fe-Val Siddell	09/20/2019 21:46	Arthur Maknenko	2117258
	09/10/2019	09/13/2019 08:00	Fe-Val Siddell	09/20/2019 22:18	Arthur Maknenko	2117259
EPA 8276	09/10/2019	09/13/2019 08:00	Fe-Val Siddell	09/20/2019 00:14	Michael Poppell	2117257
	09/10/2019	09/13/2019 08:00	Fe-Val Siddell	09/20/2019 01:09	Michael Poppell	2117258
	09/10/2019	09/13/2019 08:00	Fe-Val Siddell	09/20/2019 02:04	Michael Poppell	2117259
EPA 8321B	09/10/2019	09/11/2019 09:00	Hoor Shaik	09/13/2019 09:40	Juyoung Kim	2117252
	09/10/2019	09/11/2019 09:00	Hoor Shaik	09/13/2019 10:14	Juyoung Kim	2117253
	09/10/2019	09/11/2019 09:00	Hoor Shaik	09/13/2019 10:49	Juyoung Kim	2117254
	09/10/2019	09/11/2019 09:00	Hoor Shaik	09/13/2019 11:23	Juyoung Kim	2117255
	09/10/2019	09/11/2019 09:00	Hoor Shaik	09/13/2019 12:33	Juyoung Kim	2117256
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/12/2019 14:48	Rebecca Ware	2117252
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/12/2019 15:02	Rebecca Ware	2117253
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/12/2019 15:15	Rebecca Ware	2117254
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/12/2019 15:29	Rebecca Ware	2117255
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/12/2019 15:57	Rebecca Ware	2117256
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/13/2019 14:38	Rebecca Ware	2117252
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/13/2019 14:48	Rebecca Ware	2117253
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/13/2019 14:59	Rebecca Ware	2117254
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/13/2019 15:10	Rebecca Ware	2117255
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/13/2019 15:32	Rebecca Ware	2117256
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/25/2019 11:18	Rebecca Ware	2117252
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/25/2019 11:30	Rebecca Ware	2117253
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/25/2019 11:41	Rebecca Ware	2117254
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/25/2019 11:53	Rebecca Ware	2117255
	09/10/2019	09/12/2019 10:00	Rebecca Ware	09/25/2019 12:26	Rebecca Ware	2117256
	09/10/2019	09/12/2019 10:30	Hoor Shaik	09/13/2019 20:37	Juyoung Kim	2117249
	09/10/2019	09/12/2019 10:30	Hoor Shaik	09/13/2019 21:12	Juyoung Kim	2117250
	09/10/2019	09/12/2019 10:30	Hoor Shaik	09/13/2019 21:46	Juyoung Kim	2117251
SM 2120 B	09/10/2019			09/10/2019 16:30	Madeline Funaro	2117234
	09/10/2019			09/10/2019 16:37	Madeline Funaro	2117224
	09/10/2019			09/10/2019 17:05	Madeline Funaro	2117222
	09/10/2019			09/10/2019 17:06	Madeline Funaro	2117223
	09/10/2019			09/10/2019 17:07	Madeline Funaro	2117231

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	09/10/2019			09/13/2019 21:32	Dale L. Simmons	2117222
	09/10/2019			09/13/2019 21:44	Dale L. Simmons	2117223
	09/10/2019			09/13/2019 23:35	Dale L. Simmons	2117224
	09/10/2019			09/13/2019 23:48	Dale L. Simmons	2117231
	09/10/2019			09/14/2019 01:25	Dale L. Simmons	2117234
SM 2540 C-97	09/10/2019			09/13/2019 15:21	Yijie Li	2117222, 2117223, 2117224, 2117231, 2117234
SM 2540 D-97	09/10/2019			09/13/2019 15:21	Yijie Li	2117222, 2117223, 2117224, 2117231, 2117234
SM 4500 F-C-97	09/10/2019			09/13/2019 21:32	Dale L. Simmons	2117222
	09/10/2019			09/13/2019 21:44	Dale L. Simmons	2117223
	09/10/2019			09/13/2019 23:35	Dale L. Simmons	2117224
	09/10/2019			09/13/2019 23:48	Dale L. Simmons	2117231
	09/10/2019			09/14/2019 01:25	Dale L. Simmons	2117234
SM 5310 B-00	09/10/2019			09/11/2019 20:26	Madeline Funaro	2117225
	09/10/2019			09/11/2019 20:40	Madeline Funaro	2117226
	09/10/2019			09/11/2019 20:54	Madeline Funaro	2117227
	09/10/2019			09/11/2019 21:06	Madeline Funaro	2117232
	09/10/2019			09/13/2019 18:29	Madeline Funaro	2117235