

Chemical Analysis Report

SO-DIST-2019-06-18-01

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

Event Description: **P Cricks 1**
Request ID: **RQ-2019-06-10-36**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Maryann Dugan

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: 11-JUL-2019 13:39



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: Shell Cr@HathawayPark

Collection Date/Time: 06/17/2019 09:20

Field ID: G3SD0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096049	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P365884	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P366134	
		Sulfate	74		mg SO4/L	P366136	
	SM 2120 B	Color (true)	78		PCU	P365880	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P366156	
	SM 2540 C-97	TDS	485		mg/L	P366244	
	SM 2540 D-97	TSS	3	I	mg/L	P366203	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P366160	
2096051	EPA 350.1 Rev. 2.0	Ammonia-N	0.049		mg N/L	P366170	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P366263	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P366079	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P366026	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P366069	
2096053	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.094		mg P/L	P365897	
2096082	EPA 8321B	Aldicarb	0.020	U	ug/L	P365687	
		Aldicarb Sulfone	0.0020	U	ug/L	P365687	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P365687	
		Carbaryl	0.0020	U	ug/L	P365687	
		Carbofuran	0.0020	U	ug/L	P365687	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P365687	
		Methiocarb	0.0020	U	ug/L	P365687	
		Methomyl	0.0020	U	ug/L	P365687	
		Oxamyl	0.0020	U	ug/L	P365687	
		Propoxur	0.0020	U	ug/L	P365687	
		Acesulfame K**	0.10	U	ug/L	P365987	
		2,4-D	0.043		ug/L	P365553	
2096084		AMPA**	0.95	J	ug/L	P365987	MS
		Sucralose**	0.010	U	ug/L	P365987	
		Endothall**	0.25	U	ug/L	P365987	
		Acetaminophen**	0.0080	U	ug/L	P365553	
		Glufosinate**	0.10	UJ	ug/L	P365987	MS
		Glyphosate**	1.4	J	ug/L	P365987	MS
		Bentazon	8.0E-04	U	ug/L	P365553	
		Carbamazepine**	8.0E-04	U	ug/L	P365553	
		Diuron	0.095		ug/L	P365553	
		Fenuron	0.016	U	ug/L	P365553	
		Fluridone**	0.16		ug/L	P365553	
		Imazapyr**	0.018		ug/L	P365553	
		Hydrocodone**	0.0020	U	ug/L	P365553	
		Ibuprofen**	0.020	U	ug/L	P365553	
		Imidacloprid	0.69		ug/L	P365553	MS
		Linuron	0.0040	U	ug/L	P365553	
		MCP	0.0020	U	ug/L	P365553	

Field ID: G3SD0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096084	EPA 8321B	Naproxen**	0.0080	U	ug/L	P365553	
		Primidone**	0.0040	U	ug/L	P365553	
		Pyraclostrobin**	0.0020	U	ug/L	P365553	
		Triclopyr**	0.0040	U	ug/L	P365553	RPD
2096088	EPA 8270E	Aldrin	4.2	U	ng/L	P365932	
		Alpha-BHC	2.1	U	ng/L	P365932	
		Alpha-Chlordane	1.0	U	ng/L	P365932	
		Beta-BHC	10	U	ng/L	P365932	
		Bifenthrin**	4.2	U	ng/L	P365932	
		Delta-BHC	10	UJ	ng/L	P365932	LCS, MS
		Gamma-BHC	10	U	ng/L	P365932	
		Carbophenothion	12	U	ng/L	P365932	
		Chlorothalonil	2.1	UJ	ng/L	P365932	LCS, MS
		Cis-Nonachlor**	1.0	U	ng/L	P365932	
		Cypermethrin	21	U	ng/L	P365932	
		DDD-p,p'	8.3	U	ng/L	P365932	
		DDE-p,p'	8.3	U	ng/L	P365932	
		DDT-p,p'	10	U	ng/L	P365932	MS
		Dicofol	31	U	ng/L	P365932	
		Dieldrin	4.2	U	ng/L	P365932	
		Endosulfan I	4.2	U	ng/L	P365932	
		Endosulfan II	4.2	U	ng/L	P365932	
		Endosulfan Sulfate	2.1	U	ng/L	P365932	
		Endrin	2.1	U	ng/L	P365932	
		Endrin Aldehyde	2.1	U	ng/L	P365932	
		Endrin Ketone	2.1	U	ng/L	P365932	
		Ethalfuralin**	3.1	U	ng/L	P365932	
		Gamma-Chlordane	1.0	U	ng/L	P365932	
		Heptachlor	1.6	U	ng/L	P365932	
		Heptachlor Epoxide	2.1	U	ng/L	P365932	
		Hexachlorobenzene**	2.1	U	ng/L	P365932	
		Methoxychlor	4.2	UJ	ng/L	P365932	LCS, MS
		Mirex	2.1	U	ng/L	P365932	
		Permethrin	10	U	ng/L	P365932	
		Trans-Nonachlor**	1.0	U	ng/L	P365932	
		Trifluralin	2.6	U	ng/L	P365932	
		Chlordane	5.2	U	ng/L	P365932	
		Toxaphene	31	U	ng/L	P365932	
2096090	EPA 8270E	Acetochlor	0.26	U	ng/L	P365996	
		Alachlor	0.26	U	ng/L	P365996	
		Ametryn	0.62	U	ng/L	P365996	
		Atrazine	4.1		ng/L	P365996	
		Atrazine Desethyl	1.5	U	ng/L	P365996	
		Azinphos Methyl	5.1	U	ng/L	P365996	
		Bromacil	690		ng/L	P365996	

Field ID: G3SD0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096090	EPA 8270E	Butylate	0.41	UJ	ng/L	P365996	LCS
		Chlorpyrifos Ethyl	0.26	U	ng/L	P365996	
		Chlorpyrifos Methyl	0.10	U	ng/L	P365996	
		Cyanazine	3.3	U	ng/L	P365996	
		Demeton	7.2	U	ng/L	P365996	
		Diazinon	0.13	U	ng/L	P365996	
		Dimethenamid**	0.10	U	ng/L	P365996	
		Disulfoton	0.51	U	ng/L	P365996	
		Dithiopyr**	0.10	U	ng/L	P365996	
		EPTC	1.3	UJ	ng/L	P365996	LCS
		Ethion	0.15	U	ng/L	P365996	
		Ethoprop	0.10	U	ng/L	P365996	
		Fenamiphos	0.51	UJ	ng/L	P365996	LCS, RPD
		Fipronil	0.26	U	ng/L	P365996	
		Fipronil Desulfinyl**	0.13	U	ng/L	P365996	
		Fipronil Sulfide	0.15	U	ng/L	P365996	
		Fipronil Sulfone	0.15	U	ng/L	P365996	
		Fonofos	0.21	U	ng/L	P365996	
		Hexazinone	2.7		ng/L	P365996	
		Malathion	26		ng/L	P365996	
		Metalaxyl	170	J	ng/L	P365996	LCS, MS, RPD
		Metolachlor	18		ng/L	P365996	
		Metribuzin	2.2	I	ng/L	P365996	
		Mevinphos	0.51	U	ng/L	P365996	
		Molinate	0.31	UJ	ng/L	P365996	LCS
		Norflurazon	1.6E+03		ng/L	P365996	
		Oxadiazon**	0.17	I	ng/L	P365996	
		Parathion Ethyl	0.26	U	ng/L	P365996	
		Parathion Methyl	0.56	U	ng/L	P365996	
		Pendimethalin	1.0	U	ng/L	P365996	
		Phorate	0.26	U	ng/L	P365996	
		Prodiamine**	0.18	U	ng/L	P365996	
		Prometon	1.0	I	ng/L	P365996	
		Prometryn	0.21	U	ng/L	P365996	
		Simazine	100		ng/L	P365996	
		Tebuconazole**	2.0	I	ng/L	P365996	
		Terbufos	0.10	U	ng/L	P365996	
		Terbutylazine	0.44	U	ng/L	P365996	
2096094	EPA 200.7 Rev. 4.4	Barium	39.0		ug/L	P365952	
		Calcium	84.6		mg/L	P365952	
		Iron	430		ug/L	P365952	
		Magnesium	14.2		mg/L	P365952	
		Potassium	10.7		mg/L	P365952	
		Sodium	64.9		mg/L	P365952	

Field ID: G3SD0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096094	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P365952	
	EPA 200.8 Rev. 5.4	Aluminum	88		ug/L	P365952	
		Antimony	0.33		ug/L	P365952	
		Arsenic	1.26		ug/L	P365952	
		Boron**	72.5		ug/L	P365952	
		Cadmium	0.020	U	ug/L	P365952	
		Chromium	0.49	I	ug/L	P365952	
		Copper	1.72		ug/L	P365952	
		Lead	0.20	U	ug/L	P365952	
		Nickel	1.1	I	ug/L	P365952	
		Selenium	0.58	I	ug/L	P365952	
		Silver	0.010	U	ug/L	P365952	
		Thallium	0.10	U	ug/L	P365952	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

EPA 8270E: Refer to the narrative for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for magnesium and potassium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable because of high analyte concentration in the QC sample.

Sample Location: Shell Cr@HathawayPark

Collection Date/Time: 06/17/2019 09:45

Field ID: FB_06172019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096061	EPA 180.1 Rev. 2.0	Turbidity	0.15		NTU	P365884	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P366134	
		Sulfate	0.20	U	mg SO4/L	P366136	
	SM 2120 B	Color (true)	2.5	U	PCU	P365881	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P366156	
	SM 2540 C-97	TDS	15	U	mg/L	P366241	
	SM 2540 D-97	TSS	2	U	mg/L	P366200	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P366160	
2096062	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P366170	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P366263	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366079	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P366026	
	SM 5310 B-00	Organic Carbon	0.77	I	mg C/L	P366069	
2096063	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365897	
2096086	EPA 8321B	Aldicarb	0.020	U	ug/L	P365687	
		Aldicarb Sulfone	0.0020	U	ug/L	P365687	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P365687	
		Carbaryl	0.0020	U	ug/L	P365687	
		Carbofuran	0.0020	U	ug/L	P365687	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P365687	
		Methiocarb	0.0020	U	ug/L	P365687	
		Methomyl	0.0020	U	ug/L	P365687	
		Oxamyl	0.0020	U	ug/L	P365687	
		Propoxur	0.0020	U	ug/L	P365687	
		2,4-D	0.0020	U	ug/L	P365553	
		Acesulfame K**	0.10	U	ug/L	P365987	
		AMPA**	0.10	U	ug/L	P365987	MS
		Sucralose**	0.010	U	ug/L	P365987	
2096087		Acetaminophen**	0.0080	U	ug/L	P365553	
		Endothall**	0.25	U	ug/L	P365987	
		Glufosinate**	0.10	U	ug/L	P365987	MS
		Glyphosate**	0.10	U	ug/L	P365987	MS
		Bentazon	8.0E-04	U	ug/L	P365553	
		Carbamazepine**	8.0E-04	U	ug/L	P365553	
		Diuron	0.0020	U	ug/L	P365553	
		Fenuron	0.016	U	ug/L	P365553	
		Fluridone**	8.0E-04	U	ug/L	P365553	
		Imazapyr**	0.0040	U	ug/L	P365553	
		Hydrocodone**	0.0020	U	ug/L	P365553	
		Ibuprofen**	0.020	U	ug/L	P365553	
		Imidacloprid	0.0020	U	ug/L	P365553	MS
		Linuron	0.0040	U	ug/L	P365553	
		MCP	0.0020	U	ug/L	P365553	

Field ID: FB_06172019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096087	EPA 8321B	Naproxen**	0.0080	U	ug/L	P365553	RPD
		Primidone**	0.0040	U	ug/L	P365553	
		Pyraclostrobin**	0.0020	U	ug/L	P365553	
		Triclopyr**	0.0040	U	ug/L	P365553	
2096092	EPA 8270E	Aldrin	4.3	U	ng/L	P365932	LCS, MS
		Alpha-BHC	2.1	U	ng/L	P365932	
		Alpha-Chlordane	1.1	U	ng/L	P365932	
		Beta-BHC	11	U	ng/L	P365932	
		Bifenthrin**	4.3	U	ng/L	P365932	LCS, MS
		Delta-BHC	11	UJ	ng/L	P365932	
		Gamma-BHC	11	U	ng/L	P365932	
		Carbophenothion	13	U	ng/L	P365932	
		Chlorothalonil	2.1	UJ	ng/L	P365932	LCS, MS
		Cis-Nonachlor**	1.1	U	ng/L	P365932	
		Cypermethrin	21	U	ng/L	P365932	
		DDD-p,p'	8.5	U	ng/L	P365932	
		DDE-p,p'	8.5	U	ng/L	P365932	MS
		DDT-p,p'	11	U	ng/L	P365932	
		Dicofol	32	U	ng/L	P365932	
		Dieldrin	4.3	U	ng/L	P365932	
		Endosulfan I	4.3	U	ng/L	P365932	LCS, MS
		Endosulfan II	4.3	U	ng/L	P365932	
		Endosulfan Sulfate	2.1	U	ng/L	P365932	
		Endrin	2.1	U	ng/L	P365932	
		Endrin Aldehyde	2.1	U	ng/L	P365932	
		Endrin Ketone	2.1	U	ng/L	P365932	
		Ethalfuralin**	3.2	U	ng/L	P365932	
		Gamma-Chlordane	1.1	U	ng/L	P365932	
		Heptachlor	1.6	U	ng/L	P365932	
		Heptachlor Epoxide	2.1	U	ng/L	P365932	
		Hexachlorobenzene**	2.1	U	ng/L	P365932	
		Methoxychlor	4.3	UJ	ng/L	P365932	
		Mirex	2.1	U	ng/L	P365932	
		Permethrin	11	U	ng/L	P365932	
		Trans-Nonachlor**	1.1	U	ng/L	P365932	
		Trifluralin	2.7	U	ng/L	P365932	
	EPA 8276	Chlordane	5.3	U	ng/L	P365932	
		Toxaphene	32	U	ng/L	P365932	
2096093		EPA 8270E	Acetochlor	0.26	U	ng/L	P365996
	Alachlor		0.26	U	ng/L	P365996	
	Ametryn		0.62	U	ng/L	P365996	
	Atrazine		0.26	U	ng/L	P365996	
	Atrazine Desethyl		1.5	U	ng/L	P365996	
	Azinphos Methyl		5.1	U	ng/L	P365996	
	Bromacil		0.51	U	ng/L	P365996	

Field ID: FB_06172019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096093	EPA 8270E	Butylate	0.41	UJ	ng/L	P365996	LCS
		Chlorpyrifos Ethyl	0.26	U	ng/L	P365996	
		Chlorpyrifos Methyl	0.10	U	ng/L	P365996	
		Cyanazine	3.3	U	ng/L	P365996	
		Demeton	7.2	U	ng/L	P365996	
		Diazinon	0.13	U	ng/L	P365996	
		Dimethenamid**	0.10	U	ng/L	P365996	
		Disulfoton	0.51	U	ng/L	P365996	
		Dithiopyr**	0.10	U	ng/L	P365996	
		EPTC	1.3	UJ	ng/L	P365996	LCS
		Ethion	0.15	U	ng/L	P365996	
		Ethoprop	0.10	U	ng/L	P365996	
		Fenamiphos	0.51	UJ	ng/L	P365996	LCS, RPD
		Fipronil	0.26	U	ng/L	P365996	
		Fipronil Desulfinyl**	0.13	U	ng/L	P365996	
		Fipronil Sulfide	0.15	U	ng/L	P365996	
		Fipronil Sulfone	0.15	U	ng/L	P365996	
		Fonofos	0.21	U	ng/L	P365996	
		Hexazinone	0.51	U	ng/L	P365996	
		Malathion	0.36	U	ng/L	P365996	
		Metalaxyl	0.31	UJ	ng/L	P365996	LCS, MS, RPD
		Metolachlor	0.51	U	ng/L	P365996	
		Metribuzin	0.77	U	ng/L	P365996	
		Mevinphos	0.51	U	ng/L	P365996	
		Molinate	0.31	UJ	ng/L	P365996	LCS
		Norflurazon	0.51	U	ng/L	P365996	
		Oxadiazon**	0.10	U	ng/L	P365996	
		Parathion Ethyl	0.26	U	ng/L	P365996	
		Parathion Methyl	0.56	U	ng/L	P365996	
		Pendimethalin	1.0	U	ng/L	P365996	
		Phorate	0.26	U	ng/L	P365996	
		Prodiamine**	0.18	U	ng/L	P365996	
		Prometon	0.92	U	ng/L	P365996	
		Prometryn	0.21	U	ng/L	P365996	
		Simazine	0.51	U	ng/L	P365996	
		Tebuconazole**	0.51	U	ng/L	P365996	
		Terbufos	0.10	U	ng/L	P365996	
		Terbutylazine	0.44	U	ng/L	P365996	
2096096	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P365952	
		Calcium	0.075	U	mg/L	P365952	
		Iron	30	U	ug/L	P365952	
		Magnesium	0.040	U	mg/L	P365952	
		Potassium	0.30	U	mg/L	P365952	
		Sodium	0.50	U	mg/L	P365952	

Field ID: FB_06172019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096096	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P365952	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P365952	
		Antimony	0.050	U	ug/L	P365952	
		Arsenic	0.050	U	ug/L	P365952	
		Boron**	2.0	U	ug/L	P365952	
		Cadmium	0.020	U	ug/L	P365952	
		Chromium	0.40	U	ug/L	P365952	
		Copper	0.40	U	ug/L	P365952	
		Lead	0.20	U	ug/L	P365952	
		Nickel	0.50	U	ug/L	P365952	
		Selenium	0.20	U	ug/L	P365952	
		Silver	0.010	U	ug/L	P365952	
		Thallium	0.10	U	ug/L	P365952	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: The result was confirmed on 06/18/2019.

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

SM 5310 B-00: The result was confirmed on 06/24/2019.

EPA 8270E: Refer to the narrative for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for magnesium and potassium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable because of high analyte concentration in the QC sample.

Sample Location: PrairieCreek@WshgtnLoop

Collection Date/Time: 06/17/2019 10:10

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096050	EPA 180.1 Rev. 2.0	Turbidity	8.8		NTU	P365884	
	EPA 300.0 Rev. 2.1	Chloride	63		mg Cl/L	P366134	
		Sulfate	76		mg SO4/L	P366136	
	SM 2120 B	Color (true)	160		PCU	P365883	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P366156	
	SM 2540 C-97	TDS	354	A	mg/L	P366244	
	SM 2540 D-97	TSS	13	A	mg/L	P366203	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P366160	
2096052	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P366170	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P366263	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P366079	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P366026	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P366069	
2096054	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.079		mg P/L	P365897	
2096083	EPA 8321B	Aldicarb	0.020	U	ug/L	P365687	
		Aldicarb Sulfone	0.0020	U	ug/L	P365687	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P365687	
		Carbaryl	0.0020	U	ug/L	P365687	
		Carbofuran	0.0020	U	ug/L	P365687	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P365687	
		Methiocarb	0.0020	U	ug/L	P365687	
		Methomyl	0.0020	U	ug/L	P365687	
		Oxamyl	0.0020	U	ug/L	P365687	
		Propoxur	0.0020	U	ug/L	P365687	
		2,4-D	0.13		ug/L	P365553	
		Acesulfame K**	0.10	U	ug/L	P365987	
		AMPA**	1.1		ug/L	P365987	MS
2096085		Sucralose**	0.010	U	ug/L	P365987	
		Acetaminophen**	0.0080	U	ug/L	P365553	
		Endothall**	0.25	U	ug/L	P365987	
		Glufosinate**	0.10	U	ug/L	P365987	MS
		Glyphosate**	1.3		ug/L	P365987	MS
		Bentazon	0.0024	I	ug/L	P365553	
		Carbamazepine**	8.0E-04	U	ug/L	P365553	
		Diuron	0.37		ug/L	P365553	
		Fenuron	0.016	U	ug/L	P365553	
		Fluridone**	0.035		ug/L	P365553	
		Imazapyr**	0.0040	U	ug/L	P365553	
		Hydrocodone**	0.0020	U	ug/L	P365553	
		Ibuprofen**	0.020	U	ug/L	P365553	
		Imidacloprid	0.95		ug/L	P365553	MS
		Linuron	0.0040	U	ug/L	P365553	
		MCP	0.0020	U	ug/L	P365553	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes		
2096085	EPA 8321B	Naproxen**	0.0080	U	ug/L	P365553			
		Primidone**	0.0040	U	ug/L	P365553			
		Pyraclostrobin**	0.0020	U	ug/L	P365553			
		Triclopyr**	0.0040	U	ug/L	P365553	RPD		
2096089	EPA 8270E	Aldrin	4.2	U	ng/L	P365932			
		Alpha-BHC	2.1	U	ng/L	P365932			
		Alpha-Chlordane	1.0	U	ng/L	P365932			
		Beta-BHC	10	U	ng/L	P365932			
		Bifenthrin**	4.2	U	ng/L	P365932			
		Delta-BHC	10	UJ	ng/L	P365932	LCS, MS		
		Gamma-BHC	10	U	ng/L	P365932			
		Carbophenothion	13	U	ng/L	P365932			
		Chlorothalonil	2.1	UJ	ng/L	P365932	LCS, MS		
		Cis-Nonachlor**	1.0	U	ng/L	P365932			
		Cypermethrin	21	U	ng/L	P365932			
		DDD-p,p'	8.4	U	ng/L	P365932			
		DDE-p,p'	8.4	U	ng/L	P365932			
		DDT-p,p'	10	U	ng/L	P365932	MS		
		Dicofol	31	U	ng/L	P365932			
		Dieldrin	4.2	U	ng/L	P365932			
		Endosulfan I	4.2	U	ng/L	P365932			
		Endosulfan II	4.2	U	ng/L	P365932			
		Endosulfan Sulfate	2.1	U	ng/L	P365932			
		Endrin	2.1	U	ng/L	P365932			
		Endrin Aldehyde	2.1	U	ng/L	P365932			
		Endrin Ketone	2.1	U	ng/L	P365932			
		Ethalfuralin**	3.1	U	ng/L	P365932			
		Gamma-Chlordane	1.0	U	ng/L	P365932			
		Heptachlor	1.6	U	ng/L	P365932			
		Heptachlor Epoxide	2.1	U	ng/L	P365932			
		Hexachlorobenzene**	2.1	U	ng/L	P365932			
		Methoxychlor	4.2	UJ	ng/L	P365932	LCS, MS		
		Mirex	2.1	U	ng/L	P365932			
		Permethrin	10	U	ng/L	P365932			
		Trans-Nonachlor**	1.0	U	ng/L	P365932			
		Trifluralin	2.6	U	ng/L	P365932			
			EPA 8276	Chlordane	5.2	U	ng/L	P365932	
				Toxaphene	31	U	ng/L	P365932	
2096091	EPA 8270E	Acetochlor	0.26	U	ng/L	P365996			
		Alachlor	0.26	U	ng/L	P365996			
		Ametryn	0.61	U	ng/L	P365996			
		Atrazine	13		ng/L	P365996			
		Atrazine Desethyl	1.5	U	ng/L	P365996			
		Azinphos Methyl	5.1	U	ng/L	P365996			
		Bromacil	1.4E+03		ng/L	P365996			

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096091	EPA 8270E	Butylate	0.41	UJ	ng/L	P365996	LCS
		Chlorpyrifos Ethyl	0.26	U	ng/L	P365996	
		Chlorpyrifos Methyl	0.10	U	ng/L	P365996	
		Cyanazine	3.3	U	ng/L	P365996	
		Demeton	7.2	U	ng/L	P365996	
		Diazinon	0.13	U	ng/L	P365996	
		Dimethenamid**	0.10	U	ng/L	P365996	
		Disulfoton	0.51	U	ng/L	P365996	
		Dithiopyr**	0.10	U	ng/L	P365996	
		EPTC	1.3	UJ	ng/L	P365996	LCS
		Ethion	0.15	U	ng/L	P365996	
		Ethoprop	0.10	U	ng/L	P365996	
		Fenamiphos	0.51	UJ	ng/L	P365996	LCS, RPD
		Fipronil	0.26	U	ng/L	P365996	
		Fipronil Desulfinyl**	0.13	U	ng/L	P365996	
		Fipronil Sulfide	0.15	U	ng/L	P365996	
		Fipronil Sulfone	0.15	U	ng/L	P365996	
		Fonofos	0.20	U	ng/L	P365996	
		Hexazinone	50		ng/L	P365996	
		Malathion	29		ng/L	P365996	
		Metalaxyl	260	J	ng/L	P365996	LCS, MS, RPD
		Metolachlor	8.0		ng/L	P365996	
		Metribuzin	0.77	U	ng/L	P365996	
		Mevinphos	0.51	U	ng/L	P365996	
		Molinate	0.31	UJ	ng/L	P365996	LCS
		Norflurazon	210		ng/L	P365996	
		Oxadiazon**	0.33	I	ng/L	P365996	
		Parathion Ethyl	0.26	U	ng/L	P365996	
		Parathion Methyl	0.56	U	ng/L	P365996	
		Pendimethalin	1.0	U	ng/L	P365996	
		Phorate	0.26	U	ng/L	P365996	
		Prodiamine**	0.18	U	ng/L	P365996	
		Prometon	0.92	U	ng/L	P365996	
		Prometryn	0.20	U	ng/L	P365996	
		Simazine	280		ng/L	P365996	
		Tebuconazole**	0.68	I	ng/L	P365996	
		Terbufos	0.10	U	ng/L	P365996	
		Terbutylazine	0.43	U	ng/L	P365996	
2096095	EPA 200.7 Rev. 4.4	Barium	37.9		ug/L	P365952	
		Calcium	41.1		mg/L	P365952	
		Iron	1.20E+03		ug/L	P365952	
		Magnesium	14.8		mg/L	P365952	
		Potassium	12.6		mg/L	P365952	
		Sodium	28.8		mg/L	P365952	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096095	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P365952	
	EPA 200.8 Rev. 5.4	Aluminum	450		ug/L	P365952	
		Antimony	0.18	I	ug/L	P365952	
		Arsenic	1.35		ug/L	P365952	
		Boron**	70.7		ug/L	P365952	
		Cadmium	0.020	U	ug/L	P365952	
		Chromium	1.3	I	ug/L	P365952	
		Copper	2.07		ug/L	P365952	
		Lead	0.40		ug/L	P365952	
		Nickel	1.0	I	ug/L	P365952	
		Selenium	0.28	I	ug/L	P365952	
		Silver	0.010	U	ug/L	P365952	
		Thallium	0.10	U	ug/L	P365952	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

EPA 8270E: Refer to the narrative for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for magnesium and potassium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable because of high analyte concentration in the QC sample.

Sample Location: RunofftoPeaceRiverSite3

Collection Date/Time: 06/17/2019 11:00

Field ID: G3SD0132

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096055	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P365884	
	EPA 300.0 Rev. 2.1	Chloride	31		mg Cl/L	P366134	
		Sulfate	13		mg SO4/L	P366136	
	SM 2120 B	Color (true)	120		PCU	P365881	
	SM 2320 B-97	Total Alkalinity	50		mg CaCO3/L	P366156	
	SM 2540 C-97	TDS	174		mg/L	P366244	
	SM 2540 D-97	TSS	4	I	mg/L	P366203	
	SM 4500 F-C-97	Fluoride	0.45		mg F/L	P366160	
2096056	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P366170	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P366696	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366079	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P366026	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P366069	
2096057	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.30		mg P/L	P365897	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

Sample Location: BobcatCreekPreserveEast

Collection Date/Time: 06/17/2019 11:25

Field ID: G3SD0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096058	EPA 180.1 Rev. 2.0	Turbidity	11	A	NTU	P365884	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P366134	
		Sulfate	5.8		mg SO4/L	P366136	
	SM 2120 B	Color (true)	66		PCU	P365881	
	SM 2320 B-97	Total Alkalinity	84		mg CaCO3/L	P366156	
	SM 2540 C-97	TDS	158		mg/L	P366244	
	SM 2540 D-97	TSS	9	I	mg/L	P366203	
	SM 4500 F-C-97	Fluoride	0.61		mg F/L	P366160	
2096059	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P366170	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P366263	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P366079	
	EPA 365.1 Rev. 2.0	Total-P	1.4		mg P/L	P366026	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P366069	
2096060	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	1.0		mg P/L	P365897	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365884

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365952

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: P365952

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: P366134

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366136

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366170

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366263

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366079

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366026

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365897

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

Reference Method: EPA 8270E
Batch ID: P365932

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	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P365932

Component	Result	Code	Units
Gamma-BHC	10	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 8270E
Batch ID: P365996

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P365996

Component	Result	Code	Units
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 8276
Batch ID: P365932

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

Reference Method: EPA 8321B
Batch ID: P365553

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P365687

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P365987

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: P365880

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P365881

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P365883

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P366156

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

Reference Method: SM 2540 C-97
Batch ID: P366241

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P366244

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366200

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P366203

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P366160

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P366069

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: P365952

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.1		P	85 - 115
Calcium	100		P	85 - 115
Iron	103		P	85 - 115
Magnesium	100		P	85 - 115
Potassium	98.3		P	85 - 115
Sodium	97.6		P	85 - 115
Zinc	97.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365952

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	95.5		P	85 - 115
Antimony	99.6		P	85 - 115
Arsenic	102		P	85 - 115
Boron	94.9		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	101		P	85 - 115
Copper	98.7		P	85 - 115
Lead	101		P	85 - 115
Nickel	99.8		P	85 - 115
Selenium	99.7		P	85 - 115
Silver	99.2		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366134

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	93.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366136

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366170

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.3		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P366696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P366079

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: P366026

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365897

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.3		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P365932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	56.1	70.0	P/P	20 - 93.0
Alpha-BHC	107	114	P/P	57 - 119
Alpha-Chlordane	78.9	92.0	P/P	58 - 112
Beta-BHC	128	144	P/P	56 - 149
Bifenthrin	67.4	90.6	P/P	50 - 130
Carbophenothion	87.9	102	P/P	26 - 147
Chlorothalonil	191	237	F/F	20 - 155
Cis-Nonachlor	79.4	91.5	P/P	50 - 130
Cypermethrin	77.3	91.8	P/P	40 - 137
DDD-p,p'	90.5	102	P/P	65 - 129
DDE-p,p'	75.5	91.1	P/P	57 - 116
DDT-p,p'	103	117	P/P	53 - 133
Delta-BHC	154	191	P/F	59 - 163
Dicofol	89.9	102	P/P	24 - 138
Dieldrin	87.6	94.5	P/P	60 - 120
Endosulfan I	95.4	107	P/P	64 - 118
Endosulfan II	102	104	P/P	58 - 142
Endosulfan Sulfate	100	106	P/P	60 - 127
Endrin	88.9	114	P/P	59 - 122
Endrin Aldehyde	97.7	107	P/P	49 - 132
Endrin Ketone	93.0	99.3	P/P	64 - 121
Ethalfuralin	96.5	110	P/P	50 - 130
Gamma-BHC	124	128	P/P	56 - 141
Gamma-Chlordane	75.2	88.8	P/P	56 - 110
Heptachlor	67.2	80.4	P/P	46 - 96.0
Heptachlor Epoxide	87.7	96.4	P/P	61 - 112
Hexachlorobenzene	68.5	83.4	P/P	50 - 130
Methoxychlor	117	134	P/F	63 - 134

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P365932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mirex	51.3	68.8	P/P	45 - 100
Permethrin	65.3	79.0	P/P	53 - 115
Trans-Nonachlor	72.9	87.0	P/P	50 - 130
Trifluralin	92.0	106	P/P	39 - 142

Reference Method: EPA 8270E
Batch ID: P365996

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	120	114	P/P	69 - 122
Alachlor	115	111	P/P	71 - 120
Ametryn	101	96.5	P/P	47 - 138
Atrazine	114	103	P/P	74 - 124
Atrazine Desethyl	78.1	70.8	P/P	38 - 138
Azinphos Methyl	109	94.5	P/P	69 - 154
Bromacil	96.2	91.6	P/P	39 - 121
Butylate	93.6	84.3	F/P	27 - 87.0
Chlorpyrifos Ethyl	113	103	P/P	69 - 118
Chlorpyrifos Methyl	108	99.5	P/P	70 - 120
Cyanazine	158	137	P/P	20 - 250
Demeton	87.2	65.5	P/P	39 - 118
Diazinon	115	110	P/P	68 - 127
Dimethenamid	115	113	P/P	66 - 125
Disulfoton	78.6	74.3	P/P	52 - 126
Dithiopyr	115	114	P/P	67 - 127
EPTC	91.4	82.3	F/P	24 - 88.0
Ethion	108	103	P/P	51 - 132
Ethoprop	106	99.5	P/P	58 - 117
Fenamiphos	54.4	36.5	P/F	38 - 139
Fipronil	108	108	P/P	61 - 124
Fipronil Desulfinyl	102	99.5	P/P	47 - 120
Fipronil Sulfide	104	102	P/P	56 - 119
Fipronil Sulfone	105	102	P/P	50 - 117
Fonofos	98.8	95.1	P/P	60 - 121
Hexazinone	114	86.0	P/P	55 - 137
Malathion	112	105	P/P	66 - 126
Metaxyl	38.8	27.9	P/F	33 - 140
Metolachlor	113	110	P/P	69 - 119
Metribuzin	116	104	P/P	31 - 238
Mevinphos	88.3	82.4	P/P	42 - 113
Molinate	100	90.1	F/P	32 - 96.0
Norflurazon	107	100	P/P	54 - 123
Oxadiazon	107	103	P/P	63 - 128
Parathion Ethyl	95.7	96.4	P/P	72 - 111
Parathion Methyl	99.3	91.9	P/P	74 - 126
Pendimethalin	103	96.0	P/P	61 - 131
Phorate	92.2	80.2	P/P	51 - 115
Prodiamine	101	99.7	P/P	38 - 144
Prometon	94.9	78.2	P/P	54 - 119
Prometryn	88.1	95.3	P/P	63 - 120
Simazine	106	101	P/P	75 - 126
Tebuconazole	89.7	91.3	P/P	20 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P365996

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Terbufos	102	92.1	P/P	64 - 116
Terbutylazine	111	105	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P365932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.1	87.0	P/P	43 - 128
Toxaphene	67.2	71.7	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P365553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	115		P	40 - 150
Acetaminophen	108		P	30 - 150
Bentazon	79.7		P	30 - 150
Carbamazepine	106		P	40 - 150
Diuron	86.3		P	40 - 150
Fenuron	97.2		P	40 - 150
Fluridone	89.1		P	40 - 150
Hydrocodone	99.4		P	40 - 150
Ibuprofen	76.3		P	30 - 150
Imazapyr	92.1		P	40 - 150
Imidacloprid	103		P	40 - 150
Linuron	67.3		P	40 - 150
MCPP	137		P	40 - 150
Naproxen	80.9		P	40 - 150
Primidone	97.7		P	40 - 150
Pyraclostrobin	77.0		P	30 - 150
Triclopyr	95.8		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P365687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	81.5		P	40 - 150
Aldicarb	71.8		P	30 - 150
Aldicarb Sulfone	80.8		P	40 - 150
Aldicarb Sulfoxide	93.6		P	40 - 150
Carbaryl	76.1		P	40 - 150
Carbofuran	80.4		P	40 - 150
Methiocarb	66.4		P	40 - 150
Methomyl	95.1		P	40 - 150
Oxamyl	104		P	40 - 150
Propoxur	78.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P365987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	118		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P365987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	101		P	40 - 150
Endothall	107		P	40 - 150
Glufosinate	98.5		P	40 - 150
Glyphosate	100		P	40 - 140
Sucralose	94.8		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P365880

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.1		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P365881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P365883

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

Reference Method: SM 2320 B-97
Batch ID: P366156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P366069

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096404	Barium	98.4	99.0	P/P	80 - 120
2096404	Calcium	99.8		P	80 - 120
2096404	Iron	98.6	101	P/P	80 - 120
2096404	Sodium	99.1		P	80 - 120
2096404	Zinc	95.9	96.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096404	Aluminum	98.3	97.4	P/P	80 - 120
2096404	Antimony	103	104	P/P	80 - 120
2096404	Arsenic	107	106	P/P	80 - 120
2096404	Cadmium	103	105	P/P	80 - 120
2096404	Chromium	99.8	99.2	P/P	80 - 120
2096404	Copper	97.5	97.0	P/P	80 - 120
2096404	Lead	102	102	P/P	80 - 120
2096404	Nickel	99.0	98.9	P/P	80 - 120
2096404	Selenium	92.6	92.6	P/P	80 - 120
2096404	Silver	99.9	99.7	P/P	80 - 120
2096404	Thallium	103	106	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095743	Chloride	97.1		P	90 - 110
2096055	Chloride	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095743	Sulfate	97.6		P	90 - 110
2096055	Sulfate	97.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366170

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096059	Ammonia-N	101	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095568	Kjeldahl Nitrogen	114	107	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098751	Kjeldahl Nitrogen	98.0	99.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096051	NO2NO3-N	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365897

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096156	O-Phosphate-P	101	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P365932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096279	Aldrin	65.0	68.3	P/P	25 - 92.0
2096279	Alpha-BHC	120	124	P/P	49 - 130
2096279	Alpha-Chlordane	94.7	92.2	P/P	50 - 115
2096279	Beta-BHC	150	144	P/P	43 - 157
2096279	Bifenthrin	99.5	94.4	P/P	50 - 130
2096279	Carbophenothion	117	116	P/P	27 - 180
2096279	Chlorothalonil	242	241	F/F	10 - 216
2096279	Cis-Nonachlor	94.9	90.9	P/P	50 - 130
2096279	Cypermethrin	108	106	P/P	40 - 153
2096279	DDD-p,p'	106	103	P/P	53 - 128
2096279	DDE-p,p'	93.6	92.1	P/P	48 - 116
2096279	DDT-p,p'	134	131	F/F	47 - 128
2096279	Delta-BHC	214	254	F/F	51 - 196
2096279	Dicofol	105	116	P/P	10 - 147
2096279	Dieldrin	99.0	95.0	P/P	48 - 128
2096279	Endosulfan I	108	100	P/P	58 - 126
2096279	Endosulfan II	112	112	P/P	50 - 150
2096279	Endosulfan Sulfate	114	116	P/P	56 - 130
2096279	Endrin	109	108	P/P	50 - 126
2096279	Endrin Aldehyde	91.1	92.7	P/P	12 - 145
2096279	Endrin Ketone	107	107	P/P	59 - 132
2096279	Ethalfuralin	115	108	P/P	50 - 130
2096279	Gamma-BHC	154	123	P/P	50 - 155
2096279	Gamma-Chlordane	91.1	87.8	P/P	50 - 112
2096279	Heptachlor	77.7	78.0	P/P	41 - 98.0
2096279	Heptachlor Epoxide	98.1	98.4	P/P	55 - 117
2096279	Hexachlorobenzene	81.2	80.6	P/P	50 - 130
2096279	Methoxychlor	138	139	F/F	55 - 133
2096279	Mirex	72.2	67.8	P/P	44 - 101
2096279	Permethrin	84.3	80.4	P/P	52 - 124
2096279	Trans-Nonachlor	85.8	84.3	P/P	50 - 130
2096279	Trifluralin	108	107	P/P	10 - 201

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P365996

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096765	Acetochlor	112	109	P/P	63 - 129
2096765	Alachlor	112	109	P/P	65 - 127
2096765	Ametryn	106	104	P/P	40 - 164
2096765	Atrazine	112	109	P/P	66 - 135
2096765	Atrazine Desethyl	77.6	79.4	P/P	14 - 157
2096765	Azinphos Methyl	96.1	99.3	P/P	49 - 180
2096765	Bromacil	96.2	94.9	P/P	48 - 130
2096765	Butylate	84.5	74.9	P/P	10 - 94.0
2096765	Chlorpyrifos Ethyl	113	106	P/P	58 - 123
2096765	Chlorpyrifos Methyl	103	100	P/P	58 - 125
2096765	Cyanazine	165	127	P/P	24 - 253
2096765	Demeton	70.9	69.0	P/P	25 - 149
2096765	Diazinon	109	109	P/P	59 - 144
2096765	Dimethenamid	109	108	P/P	46 - 139
2096765	Disulfoton	85.6	78.3	P/P	54 - 132
2096765	Dithiopyr	110	109	P/P	64 - 130
2096765	EPTC	75.7	79.5	P/P	10 - 92.0
2096765	Ethion	109	99.6	P/P	30 - 148
2096765	Ethoprop	103	96.2	P/P	50 - 130
2096765	Fenamiphos	75.5	80.4	P/P	49 - 142
2096765	Fipronil	105	103	P/P	46 - 140
2096765	Fipronil Desulfinyl	100	96.5	P/P	30 - 121
2096765	Fipronil Sulfide	105	94.8	P/P	31 - 136
2096765	Fipronil Sulfone	107	97.1	P/P	16 - 136
2096765	Fonofos	96.0	92.4	P/P	55 - 129
2096765	Hexazinone	133	140	P/P	56 - 141
2096765	Malathion	110	103	P/P	56 - 135
2096765	Metalaxyl	45.9	72.6	F/P	54 - 135
2096765	Metolachlor	108	108	P/P	51 - 140
2096765	Metribuzin	123	126	P/P	45 - 254
2096765	Mevinphos	80.6	85.4	P/P	33 - 131
2096765	Molinate	85.4	88.7	P/P	14 - 98.0
2096765	Norflurazon	102	100	P/P	34 - 136
2096765	Oxadiazon	105	102	P/P	67 - 116
2096765	Parathion Ethyl	94.3	93.6	P/P	66 - 118
2096765	Parathion Methyl	89.6	94.0	P/P	64 - 136
2096765	Pendimethalin	101	93.8	P/P	59 - 144
2096765	Phorate	78.5	82.8	P/P	42 - 130
2096765	Prodiamine	109	100	P/P	42 - 148
2096765	Prometon	77.0	98.8	P/P	59 - 134
2096765	Prometryn	99.0	95.1	P/P	54 - 135
2096765	Simazine	103	107	P/P	53 - 156
2096765	Tebuconazole	85.7	97.7	P/P	10 - 131
2096765	Terbufos	98.1	92.1	P/P	57 - 131
2096765	Terbutylazine	109	104	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P365932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096764	Chlordane	90.3	85.2	P/P	34 - 136
2096764	Toxaphene	69.0	72.8	P/P	22 - 152

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P365553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095117	2,4-D	102	111	P/P	40 - 150
2095117	Acetaminophen	98.7	89.9	P/P	30 - 150
2095117	Bentazon	67.4	55.3	P/P	30 - 150
2095117	Carbamazepine	101	90.9	P/P	40 - 150
2095117	Diuron	79.2	74.5	P/P	40 - 150
2095117	Fenuron	95.5	91.9	P/P	40 - 150
2095117	Fluridone	88.3	88.0	P/P	40 - 150
2095117	Hydrocodone	120	104	P/P	40 - 150
2095117	Ibuprofen	72.6	64.3	P/P	30 - 150
2095117	Imazapyr	117	115	P/P	40 - 150
2095117	Imidacloprid	178	167	F/F	40 - 150
2095117	Linuron	66.4	61.2	P/P	40 - 150
2095117	MCP	127	126	P/P	40 - 150
2095117	Naproxen	78.1	76.4	P/P	40 - 150
2095117	Primidone	80.0	79.6	P/P	40 - 150
2095117	Pyraclostrobin	83.3	78.0	P/P	30 - 150
2095117	Triclopyr	64.3	92.1	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P365687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095290	3-Hydroxycarbofuran	71.0	68.4	P/P	40 - 150
2095290	Aldicarb	61.1	61.2	P/P	30 - 150
2095290	Aldicarb Sulfone	87.2	86.7	P/P	40 - 150
2095290	Aldicarb Sulfoxide	60.0	55.1	P/P	40 - 150
2095290	Carbaryl	69.7	72.9	P/P	40 - 150
2095290	Carbofuran	81.0	83.2	P/P	40 - 150
2095290	Methiocarb	61.9	62.3	P/P	40 - 150
2095290	Methomyl	95.3	81.5	P/P	40 - 150
2095290	Oxamyl	93.0	101	P/P	40 - 150
2095290	Propoxur	73.5	74.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P365987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096084	Acesulfame K	83.1	82.1	P/P	40 - 150
2096084	AMPA	18.2	28.7	F/F	40 - 150
2096084	Endothall	77.0	74.5	P/P	40 - 150
2096084	Glufosinate	39.1	39.5	F/F	40 - 150
2096084	Glyphosate	14.7	32.0	F/F	40 - 140
2096084	Sucralose	52.8	50.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P366160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096411	Fluoride	98.2	98.2	P/P	89 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P366069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096102	Organic Carbon	95.3	95.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096058	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096404	Barium	0.552	Spike	P	0 - 20
2096404	Calcium	1.10	Spike	P	0 - 20
2096404	Iron	2.21	Spike	P	0 - 20
2096404	Magnesium	0.587	Spike	P	0 - 20
2096404	Potassium	0.876	Spike	P	0 - 20
2096404	Sodium	0.850	Spike	P	0 - 20
2096404	Zinc	0.283	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096404	Aluminum	1.00	Spike	P	0 - 20
2096404	Antimony	0.563	Spike	P	0 - 20
2096404	Arsenic	0.363	Spike	P	0 - 20
2096404	Boron	0.556	Spike	P	0 - 20
2096404	Cadmium	2.09	Spike	P	0 - 20
2096404	Chromium	0.664	Spike	P	0 - 20
2096404	Copper	0.606	Spike	P	0 - 20
2096404	Lead	0.291	Spike	P	0 - 20
2096404	Nickel	0.124	Spike	P	0 - 20
2096404	Selenium	0.0538	Spike	P	0 - 20
2096404	Silver	0.209	Spike	P	0 - 20
2096404	Thallium	2.88	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095743	Chloride	0.350	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095743	Sulfate	0.331	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P366170

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096059	Ammonia-N	0.707	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P366263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095568	Kjeldahl Nitrogen	4.85	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P366696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098751	Kjeldahl Nitrogen	0.978	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P366079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096051	NO2NO3-N	0.411	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096059	Total-P	1.25	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096156	O-Phosphate-P	0.495	Spike	P	0 - 20

Reference Method: EPA 8270E
 Batch ID: P365932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096279	Aldrin	4.96	Spike	P	0 - 30
2096279	Alpha-BHC	2.59	Spike	P	0 - 30
2096279	Alpha-Chlordane	2.76	Spike	P	0 - 30
2096279	Beta-BHC	3.94	Spike	P	0 - 30
2096279	Bifenthrin	5.29	Spike	P	0 - 30
2096279	Carbophenothion	1.16	Spike	P	0 - 30
2096279	Chlorothalonil	0.601	Spike	P	0 - 30
2096279	Cis-Nonachlor	4.35	Spike	P	0 - 30
2096279	Cypermethrin	1.63	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P365932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096279	DDD-p,p'	3.10	Spike	P	0 - 30
2096279	DDE-p,p'	1.68	Spike	P	0 - 30
2096279	DDT-p,p'	2.35	Spike	P	0 - 30
2096279	Delta-BHC	17.3	Spike	P	0 - 30
2096279	Dicofol	9.84	Spike	P	0 - 30
2096279	Dieldrin	4.17	Spike	P	0 - 30
2096279	Endosulfan I	7.65	Spike	P	0 - 30
2096279	Endosulfan II	0.414	Spike	P	0 - 30
2096279	Endosulfan Sulfate	1.47	Spike	P	0 - 30
2096279	Endrin	1.47	Spike	P	0 - 30
2096279	Endrin Aldehyde	1.74	Spike	P	0 - 30
2096279	Endrin Ketone	0.0374	Spike	P	0 - 30
2096279	Ethalfuralin	6.05	Spike	P	0 - 30
2096279	Gamma-BHC	22.1	Spike	P	0 - 30
2096279	Gamma-Chlordane	3.69	Spike	P	0 - 30
2096279	Heptachlor	0.394	Spike	P	0 - 30
2096279	Heptachlor Epoxide	0.238	Spike	P	0 - 30
2096279	Hexachlorobenzene	0.755	Spike	P	0 - 30
2096279	Methoxychlor	0.425	Spike	P	0 - 30
2096279	Mirex	6.30	Spike	P	0 - 30
2096279	Permethrin	4.74	Spike	P	0 - 30
2096279	Trans-Nonachlor	1.70	Spike	P	0 - 30
2096279	Trifluralin	1.54	Spike	P	0 - 30
LFB	Aldrin	22.1	LCS	P	0 - 30
LFB	Alpha-BHC	6.12	LCS	P	0 - 30
LFB	Alpha-Chlordane	15.3	LCS	P	0 - 30
LFB	Beta-BHC	12.2	LCS	P	0 - 30
LFB	Bifenthrin	29.4	LCS	P	0 - 30
LFB	Carbophenothion	14.4	LCS	P	0 - 30
LFB	Chlorothalonil	21.5	LCS	P	0 - 30
LFB	Cis-Nonachlor	14.1	LCS	P	0 - 30
LFB	Cypermethrin	17.2	LCS	P	0 - 30
LFB	DDD-p,p'	11.7	LCS	P	0 - 30
LFB	DDE-p,p'	18.7	LCS	P	0 - 30
LFB	DDT-p,p'	12.9	LCS	P	0 - 30
LFB	Delta-BHC	21.5	LCS	P	0 - 30
LFB	Dicofol	12.5	LCS	P	0 - 30
LFB	Dieldrin	7.55	LCS	P	0 - 30
LFB	Endosulfan I	11.2	LCS	P	0 - 30
LFB	Endosulfan II	1.81	LCS	P	0 - 30
LFB	Endosulfan Sulfate	5.75	LCS	P	0 - 30
LFB	Endrin	24.7	LCS	P	0 - 30
LFB	Endrin Aldehyde	8.78	LCS	P	0 - 30
LFB	Endrin Ketone	6.49	LCS	P	0 - 30
LFB	Ethalfuralin	13.2	LCS	P	0 - 30
LFB	Gamma-BHC	2.51	LCS	P	0 - 30
LFB	Gamma-Chlordane	16.6	LCS	P	0 - 30
LFB	Heptachlor	17.9	LCS	P	0 - 30
LFB	Heptachlor Epoxide	9.44	LCS	P	0 - 30
LFB	Hexachlorobenzene	19.6	LCS	P	0 - 30
LFB	Methoxychlor	13.6	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
 Batch ID: P365932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	29.0	LCS	P	0 - 30
LFB	Permethrin	19.0	LCS	P	0 - 30
LFB	Trans-Nonachlor	17.6	LCS	P	0 - 30
LFB	Trifluralin	14.3	LCS	P	0 - 30

Reference Method: EPA 8270E
 Batch ID: P365996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096765	Acetochlor	2.81	Spike	P	0 - 30
2096765	Alachlor	2.11	Spike	P	0 - 30
2096765	Ametryn	1.65	Spike	P	0 - 30
2096765	Atrazine	3.05	Spike	P	0 - 30
2096765	Atrazine Desethyl	2.35	Spike	P	0 - 30
2096765	Azinphos Methyl	3.26	Spike	P	0 - 30
2096765	Bromacil	1.20	Spike	P	0 - 30
2096765	Butylate	12.0	Spike	P	0 - 30
2096765	Chlorpyrifos Ethyl	6.82	Spike	P	0 - 30
2096765	Chlorpyrifos Methyl	2.39	Spike	P	0 - 30
2096765	Cyanazine	25.8	Spike	P	0 - 30
2096765	Demeton	2.69	Spike	P	0 - 30
2096765	Diazinon	0.0929	Spike	P	0 - 30
2096765	Dimethenamid	1.30	Spike	P	0 - 30
2096765	Disulfoton	8.91	Spike	P	0 - 30
2096765	Dithiopyr	1.28	Spike	P	0 - 30
2096765	EPTC	4.88	Spike	P	0 - 30
2096765	Ethion	9.27	Spike	P	0 - 30
2096765	Ethoprop	6.55	Spike	P	0 - 30
2096765	Fenamiphos	6.38	Spike	P	0 - 30
2096765	Fipronil	1.44	Spike	P	0 - 30
2096765	Fipronil Desulfinyl	3.57	Spike	P	0 - 30
2096765	Fipronil Sulfide	10.4	Spike	P	0 - 30
2096765	Fipronil Sulfone	9.64	Spike	P	0 - 30
2096765	Fonofos	3.75	Spike	P	0 - 30
2096765	Hexazinone	4.52	Spike	P	0 - 30
2096765	Malathion	7.03	Spike	P	0 - 30
2096765	Metalaxyl	45.0	Spike	F	0 - 30
2096765	Metolachlor	0.0794	Spike	P	0 - 30
2096765	Metribuzin	2.30	Spike	P	0 - 30
2096765	Mevinphos	5.82	Spike	P	0 - 30
2096765	Molinate	3.78	Spike	P	0 - 30
2096765	Norflurazon	2.00	Spike	P	0 - 30
2096765	Oxadiazon	2.95	Spike	P	0 - 30
2096765	Parathion Ethyl	0.776	Spike	P	0 - 30
2096765	Parathion Methyl	4.72	Spike	P	0 - 30
2096765	Pendimethalin	7.00	Spike	P	0 - 30
2096765	Phorate	5.34	Spike	P	0 - 30
2096765	Prodiamine	8.20	Spike	P	0 - 30
2096765	Prometon	24.8	Spike	P	0 - 30
2096765	Prometryn	4.07	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P365996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096765	Simazine	4.24	Spike	P	0 - 30
2096765	Tebuconazole	13.1	Spike	P	0 - 30
2096765	Terbufos	6.32	Spike	P	0 - 30
2096765	Terbutylazine	4.84	Spike	P	0 - 30
LFB	Acetochlor	5.09	LCS	P	0 - 30
LFB	Alachlor	2.81	LCS	P	0 - 30
LFB	Ametryn	4.32	LCS	P	0 - 30
LFB	Atrazine	10.3	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.78	LCS	P	0 - 30
LFB	Azinphos Methyl	14.1	LCS	P	0 - 30
LFB	Bromacil	4.92	LCS	P	0 - 30
LFB	Butylate	10.5	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.88	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.97	LCS	P	0 - 30
LFB	Cyanazine	14.0	LCS	P	0 - 30
LFB	Demeton	28.5	LCS	P	0 - 30
LFB	Diazinon	5.29	LCS	P	0 - 30
LFB	Dimethenamid	2.09	LCS	P	0 - 30
LFB	Disulfoton	5.59	LCS	P	0 - 30
LFB	Dithiopyr	1.24	LCS	P	0 - 30
LFB	EPTC	10.4	LCS	P	0 - 30
LFB	Ethion	4.41	LCS	P	0 - 30
LFB	Ethoprop	6.55	LCS	P	0 - 30
LFB	Fenamiphos	39.4	LCS	F	0 - 30
LFB	Fipronil	0.460	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.71	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.97	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.87	LCS	P	0 - 30
LFB	Fonofos	3.79	LCS	P	0 - 30
LFB	Hexazinone	28.0	LCS	P	0 - 30
LFB	Malathion	7.34	LCS	P	0 - 30
LFB	Metalaxyl	32.6	LCS	F	0 - 30
LFB	Metolachlor	2.87	LCS	P	0 - 30
LFB	Metribuzin	10.9	LCS	P	0 - 30
LFB	Mevinphos	6.92	LCS	P	0 - 30
LFB	Molinate	10.9	LCS	P	0 - 30
LFB	Norflurazon	6.34	LCS	P	0 - 30
LFB	Oxadiazon	3.46	LCS	P	0 - 30
LFB	Parathion Ethyl	0.704	LCS	P	0 - 30
LFB	Parathion Methyl	7.76	LCS	P	0 - 30
LFB	Pendimethalin	7.21	LCS	P	0 - 30
LFB	Phorate	14.0	LCS	P	0 - 30
LFB	Prodiamine	1.19	LCS	P	0 - 30
LFB	Prometon	19.2	LCS	P	0 - 30
LFB	Prometryn	7.86	LCS	P	0 - 30
LFB	Simazine	5.19	LCS	P	0 - 30
LFB	Tebuconazole	1.83	LCS	P	0 - 30
LFB	Terbufos	10.2	LCS	P	0 - 30
LFB	Terbutylazine	5.62	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P365932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096764	Chlordane	5.75	Spike	P	0 - 30
2096764	Toxaphene	5.42	Spike	P	0 - 30
LFB	Chlordane	9.48	LCS	P	0 - 30
LFB	Toxaphene	6.44	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P365553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095117	2,4-D	7.94	Spike	P	0 - 30
2095117	Acetaminophen	9.39	Spike	P	0 - 30
2095117	Bentazon	18.5	Spike	P	0 - 30
2095117	Carbamazepine	10.3	Spike	P	0 - 30
2095117	Diuron	6.11	Spike	P	0 - 30
2095117	Fenuron	3.85	Spike	P	0 - 30
2095117	Fluridone	0.372	Spike	P	0 - 30
2095117	Hydrocodone	14.3	Spike	P	0 - 30
2095117	Ibuprofen	12.0	Spike	P	0 - 30
2095117	Imazapyr	1.67	Spike	P	0 - 30
2095117	Imidacloprid	6.00	Spike	P	0 - 30
2095117	Linuron	8.10	Spike	P	0 - 30
2095117	MCP	0.876	Spike	P	0 - 30
2095117	Naproxen	2.12	Spike	P	0 - 30
2095117	Primidone	0.591	Spike	P	0 - 30
2095117	Pyraclostrobin	6.51	Spike	P	0 - 30
2095117	Triclopyr	35.5	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P365687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095290	3-Hydroxycarbofuran	3.61	Spike	P	0 - 30
2095290	Aldicarb	0.221	Spike	P	0 - 30
2095290	Aldicarb Sulfone	0.599	Spike	P	0 - 30
2095290	Aldicarb Sulfoxide	8.48	Spike	P	0 - 30
2095290	Carbaryl	4.49	Spike	P	0 - 30
2095290	Carbofuran	2.59	Spike	P	0 - 30
2095290	Methiocarb	0.578	Spike	P	0 - 30
2095290	Methomyl	15.6	Spike	P	0 - 30
2095290	Oxamyl	7.87	Spike	P	0 - 30
2095290	Propoxur	1.27	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P365987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096084	Acesulfame K	1.17	Spike	P	0 - 30
2096084	AMPA	8.78	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P365987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096084	Endothall	3.36	Spike	P	0 - 30
2096084	Glufosinate	1.10	Spike	P	0 - 30
2096084	Glyphosate	10.5	Spike	P	0 - 30
2096084	Sucralose	5.07	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P365880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096015	Color (true)	2.79	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P365881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096098	Color (true)	0.570	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P365883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096100	Color (true)	0.0682	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P366156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096411	Total Alkalinity	0.211	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P366241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2095554	TDS	3.07	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P366244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096050	TDS	7.64	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 D-97
Batch ID: P366203

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096050	TSS	3.08	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P366160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096411	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P366069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096102	Organic Carbon	0.0	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: 2096082
Field Sample ID: G3SD0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	52.1	P	30 - 160

Lab Sample ID: 2096083
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	48.1	P	30 - 160

Lab Sample ID: 2096084
Field Sample ID: G3SD0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	87.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	53.5	P	30 - 160
EPA 8321B	Diuron-d6	57.7	P	30 - 160
EPA 8321B	Endothall-d6	88.2	P	30 - 160
EPA 8321B	Endothall-d6	88.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	61.6	P	30 - 160
EPA 8321B	Primidone-d5	79.2	P	30 - 160
EPA 8321B	Sucralose-d6	58.3	P	30 - 160
EPA 8321B	Sucralose-d6	58.3	P	30 - 160

Lab Sample ID: 2096085
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.5	P	30 - 160
EPA 8321B	Diuron-d6	55.9	P	30 - 160
EPA 8321B	Endothall-d6	80.9	P	30 - 160
EPA 8321B	Endothall-d6	80.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	56.8	P	30 - 160
EPA 8321B	Primidone-d5	65.4	P	30 - 160
EPA 8321B	Sucralose-d6	92.2	P	30 - 160
EPA 8321B	Sucralose-d6	92.2	P	30 - 160

Lab Sample ID: 2096086
Field Sample ID: FB_06172019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	57.1	P	30 - 160

Lab Sample ID: 2096087
Field Sample ID: FB_06172019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
------------------	-----------	--------	-----------	----------------

Quality Assurance Report Surrogates

Lab Sample ID: 2096087
Field Sample ID: FB_06172019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.4	P	30 - 160
EPA 8321B	Diuron-d6	67.8	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	133	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	133	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.0	P	30 - 160
EPA 8321B	Primidone-d5	83.6	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2096088
Field Sample ID: G3SD0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	90.3	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	68.3	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	65.5	P	30 - 103
EPA 8276	PCNB	87.6	P	37 - 143

Lab Sample ID: 2096089
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	91.1	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	79.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	62.5	P	30 - 103
EPA 8276	PCNB	93.0	P	37 - 143

Lab Sample ID: 2096090
Field Sample ID: G3SD0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	112	P	68 - 130
EPA 8270E	Terbufos-d10	94.0	P	61 - 136

Lab Sample ID: 2096091
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	110	P	68 - 130
EPA 8270E	Terbufos-d10	82.3	P	61 - 136

Lab Sample ID: 2096092
Field Sample ID: FB_06172019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.8	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	76.8	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	51.5	P	30 - 103

Quality Assurance Report Surrogates

Lab Sample ID: 2096092
Field Sample ID: FB_06172019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	PCNB	89.5	P	37 - 143

Lab Sample ID: 2096093
Field Sample ID: FB_06172019

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	101	P	68 - 130
EPA 8270E	Terbufos-d10	106	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92171

Included Lab Sample IDs: 2096049, 2096050, 2096055, 2096058, 2096061

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

Reference Method: SM 2120 B

Run ID: A92186

Included Lab Sample IDs: 2096049, 2096050, 2096055, 2096058, 2096061

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115
Color (true)	98.9	98.2	P/P	90 - 115
Color (true)	99.0	98.9	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A92187

Included Lab Sample IDs: 2096049, 2096050, 2096055, 2096058, 2096061

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92195

Included Lab Sample IDs: 2096053, 2096054, 2096057, 2096060, 2096063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.5	97.1	P/P	90 - 110
O-Phosphate-P	97.9	98.2	P/P	90 - 110
O-Phosphate-P	98.2	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92237

Included Lab Sample IDs: 2096051, 2096052, 2096056, 2096059, 2096062

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92251

Included Lab Sample IDs: 2096094, 2096095, 2096096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	100	P/P	95 - 105
Calcium	104	104	P/P	95 - 105
Iron	104	103	P/P	95 - 105
Magnesium	102	102	P/P	95 - 105
Potassium	103	101	P/P	95 - 105
Sodium	99.0	101	P/P	95 - 105
Zinc	100	101	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A92256

Included Lab Sample IDs: 2096051, 2096052, 2096056, 2096059, 2096062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	96.8	P/P	90 - 110
Organic Carbon	96.8	97.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92259

Included Lab Sample IDs: 2096084, 2096085, 2096087

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	115	112	P/P	60 - 160
Endothall	111	103	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92263

Included Lab Sample IDs: 2096051, 2096052, 2096056, 2096059

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	97.5	P/P	90 - 110
Total-P	97.5	98.8	P/P	90 - 110
Total-P	99.4	99.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92278

Included Lab Sample IDs: 2096084, 2096085, 2096087

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	90.6	98.1	P/P	60 - 160
Glufosinate	88.5	92.7	P/P	60 - 160
Glyphosate	93.1	106	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92283

Included Lab Sample IDs: 2096094, 2096095, 2096096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.4	98.1	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	102	102	P/P	90 - 110
Boron	95.2	96.2	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Chromium	103	101	P/P	90 - 110
Copper	101	101	P/P	90 - 110
Lead	102	101	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Silver	97.4	98.0	P/P	90 - 110
Thallium	97.9	94.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92285

Included Lab Sample IDs: 2096062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	97.2	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A92292

Included Lab Sample IDs: 2096049, 2096050, 2096055, 2096058, 2096061

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

Reference Method: SM 4500 F-C-97

Run ID: A92292

Included Lab Sample IDs: 2096049, 2096050, 2096055, 2096058, 2096061

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92297

Included Lab Sample IDs: 2096051, 2096052, 2096056, 2096059, 2096062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	102	102	P/P	90 - 110
Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A92323

Included Lab Sample IDs: 2096088, 2096089, 2096092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.4		P	80 - 120
Toxaphene	99.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92329

Included Lab Sample IDs: 2096094, 2096095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	92.8	94.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92342

Included Lab Sample IDs: 2096084, 2096085, 2096087

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	77.7	67.2	P/P	50 - 150
3-Hydroxycarbofuran	103	100	P/P	60 - 150
Acetaminophen	85.5	72.9	P/P	60 - 160
Aldicarb	102	92.2	P/P	60 - 150
Aldicarb Sulfone	81.3	102	P/P	50 - 150
Aldicarb Sulfoxide	87.4	103	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A92342

Included Lab Sample IDs: 2096084, 2096085, 2096087

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	68.1	97.3	P/P	50 - 160
Carbamazepine	107	104	P/P	60 - 150
Carbaryl	100	105	P/P	60 - 150
Carbofuran	93.6	115	P/P	50 - 150
Diuron	98.3	103	P/P	60 - 150
Fenuron	95.0	94.4	P/P	60 - 150
Fluridone	89.0	89.8	P/P	60 - 160
Hydrocodone	112	113	P/P	60 - 150
Ibuprofen	65.1	68.3	P/P	50 - 160
Imazapyr	69.0	79.7	P/P	50 - 150
Imidacloprid	86.5	105	P/P	60 - 150
Linuron	83.9	73.6	P/P	60 - 150
MCPP	77.2	69.1	P/P	50 - 150
Methiocarb	96.8	90.4	P/P	50 - 150
Methomyl	102	109	P/P	50 - 150
Naproxen	91.8	73.0	P/P	50 - 160
Oxamyl	110	88.6	P/P	50 - 150
Primidone	74.0	93.8	P/P	60 - 150
Propoxur	98.3	106	P/P	50 - 150
Pyraclostrobin	94.1	80.9	P/P	60 - 150
Triclopyr	81.7	72.6	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A92351

Included Lab Sample IDs: 2096088, 2096089, 2096092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.7		P	80 - 120
Alpha-BHC	94.1		P	80 - 120
Alpha-Chlordane	93.4		P	80 - 120
Beta-BHC	101		P	80 - 120
Bifenthrin	94.3		P	80 - 120
Carbophenothion	92.1		P	80 - 120
Chlorothalonil	110		P	80 - 120
Cis-Nonachlor	93.4		P	80 - 120
Cypermethrin	99.0		P	80 - 120
DDD-p,p'	96.2		P	80 - 120
DDE-p,p'	95.4		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	98.5		P	80 - 120
Dicofol	97.6		P	80 - 120
Dieldrin	93.6		P	80 - 120
Endosulfan I	94.6		P	80 - 120
Endosulfan II	89.0		P	80 - 120
Endosulfan Sulfate	93.9		P	80 - 120
Endrin	92.9		P	80 - 120
Endrin Aldehyde	92.6		P	80 - 120
Endrin Ketone	95.7		P	80 - 120
Ethalfuralin	95.7		P	80 - 120
Gamma-BHC	97.1		P	80 - 120
Gamma-Chlordane	93.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A92351

Included Lab Sample IDs: 2096088, 2096089, 2096092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor	92.4		P	80 - 120
Heptachlor Epoxide	93.7		P	80 - 120
Hexachlorobenzene	96.3		P	80 - 120
Methoxychlor	100		P	80 - 120
Mirex	96.6		P	80 - 120
Permethrin	90.9		P	80 - 120
Trans-Nonachlor	93.7		P	80 - 120
Trifluralin	95.7		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92381

Included Lab Sample IDs: 2096051, 2096052, 2096059, 2096062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.9	94.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A92423

Included Lab Sample IDs: 2096090, 2096091, 2096093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	100		P	80 - 120
Bromacil	95.6		P	80 - 120
Butylate	102		P	80 - 120
Chlorpyrifos Ethyl	97.7		P	80 - 120
Chlorpyrifos Methyl	99.0		P	80 - 120
Cyanazine	101		P	80 - 120
Demeton	99.0		P	80 - 120
Diazinon	101		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	96.1		P	80 - 120
Dithiopyr	99.8		P	80 - 120
EPTC	99.3		P	80 - 120
Ethion	97.7		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	99.4		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	104		P	80 - 120
Fipronil Sulfide	98.8		P	80 - 120
Fipronil Sulfone	99.9		P	80 - 120
Fonofos	96.3		P	80 - 120
Hexazinone	96.7		P	80 - 120
Malathion	98.3		P	80 - 120
Metalaxyl	108		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	95.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A92423

Included Lab Sample IDs: 2096090, 2096091, 2096093

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mevinphos	100		P	80 - 120
Molinate	99.2		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	102		P	80 - 120
Parathion Ethyl	98.7		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	99.2		P	80 - 120
Phorate	97.2		P	80 - 120
Prodiamine	95.1		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	107		P	80 - 120
Simazine	98.4		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	97.8		P	80 - 120
Terbuthylazine	101		P	80 - 120

Reference Method: EPA 8321B

Run ID: A92430

Included Lab Sample IDs: 2096084, 2096085, 2096087

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	103	P/P	60 - 160
Sucralose	108	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A92482

Included Lab Sample IDs: 2096085

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	94.1	92.8	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92598

Included Lab Sample IDs: 2096056

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

Reference Method: EPA 8270E

Run ID: A92603

Included Lab Sample IDs: 2096090, 2096091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	96.8		P	80 - 120
Metalaxyl	98.8		P	80 - 120
Norflurazon	102		P	80 - 120
Simazine	96.1		P	80 - 120

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.0	
EPA 200.7 Rev. 4.4	Barium	99.1		98.4	99.0			0.552
	Calcium	100		99.8				1.10
	Iron	103		98.6	101			2.21
	Magnesium	100						0.587
	Potassium	98.3						0.876
	Sodium	97.6		99.1				0.850
	Zinc	97.1		95.9	96.2			0.283
EPA 200.8 Rev. 5.4	Aluminum	95.5		98.3	97.4			1.00
	Antimony	99.6		103	104			0.563
	Arsenic	102		107	106			0.363
	Boron	94.9						0.556
	Cadmium	100		103	105			2.09
	Chromium	101		99.8	99.2			0.664
	Copper	98.7		97.5	97.0			0.606
	Lead	101		102	102			0.291
	Nickel	99.8		99.0	98.9			0.124
	Selenium	99.7		92.6	92.6			0.0538
	Silver	99.2		99.9	99.7			0.209
	Thallium	100		103	106			2.88
EPA 300.0 Rev. 2.1	Chloride	93.7		97.1	98.0		0.350	
	Sulfate	98.2		97.6	97.1		0.331	
EPA 350.1 Rev. 2.0	Ammonia-N	98.3		101	99.4			0.707
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		114	107			4.85
	Kjeldahl Nitrogen	98.8		98.0	99.2			0.978
EPA 353.2 Rev. 2.0	NO2NO3-N	100		96.5				0.411
EPA 365.1 Rev. 2.0	Total-P	101						1.25
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3		101	101			0.495
EPA 8270E	Acetochlor	120	114	109	112	5.09		2.81
	Alachlor	115	111	109	112	2.81		2.11
	Aldrin	56.1	70.0	68.3	65.0	22.1		4.96
	Alpha-BHC	107	114	120	124	6.12		2.59
	Alpha-Chlordane	78.9	92.0	94.7	92.2	15.3		2.76
	Ametryn	101	96.5	104	106	4.32		1.65
	Atrazine	114	103	109	112	10.3		3.05
	Atrazine Desethyl	78.1	70.8	79.4	77.6	9.78		2.35
	Azinphos Methyl	109	94.5	99.3	96.1	14.1		3.26
	Beta-BHC	128	144	150	144	12.2		3.94
	Bifenthrin	67.4	90.6	99.5	94.4	29.4		5.29
	Bromacil	96.2	91.6	96.2	94.9	4.92		1.20
	Butylate	93.6	84.3	74.9	84.5	10.5		12.0
	Carbophenothion	87.9	102	117	116	14.4		1.16
	Chlorothalonil	191	237	242	241	21.5		0.601
	Chlorpyrifos Ethyl	113	103	113	106	9.88		6.82
	Chlorpyrifos Methyl	108	99.5	100	103	7.97		2.39
	Cis-Nonachlor	79.4	91.5	90.9	94.9	14.1		4.35
	Cyanazine	158	137	127	165	14.0		25.8
	Cypermethrin	77.3	91.8	106	108	17.2		1.63
	DDD-p,p'	90.5	102	103	106	11.7		3.10
	DDE-p,p'	75.5	91.1	92.1	93.6	18.7		1.68
	DDT-p,p'	103	117	131	134	12.9		2.35
	Delta-BHC	154	191	214	254	21.5		17.3
	Demeton	87.2	65.5	69.0	70.9	28.5		2.69
	Diazinon	115	110	109	109	5.29		0.0929

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dicofol	89.9	102	116	105	12.5	9.84
	Dieldrin	87.6	94.5	95.0	99.0	7.55	4.17
	Dimethenamid	115	113	108	109	2.09	1.30
	Disulfoton	78.6	74.3	78.3	85.6	5.59	8.91
	Dithiopyr	115	114	109	110	1.24	1.28
	Endosulfan I	95.4	107	100	108	11.2	7.65
	Endosulfan II	102	104	112	112	1.81	0.414
	Endosulfan Sulfate	100	106	116	114	5.75	1.47
	Endrin	88.9	114	108	109	24.7	1.47
	Endrin Aldehyde	97.7	107	92.7	91.1	8.78	1.74
	Endrin Ketone	93.0	99.3	107	107	6.49	0.0374
	EPTC	91.4	82.3	79.5	75.7	10.4	4.88
	Ethalfuralin	96.5	110	108	115	13.2	6.05
	Ethion	108	103	99.6	109	4.41	9.27
	Ethoprop	106	99.5	96.2	103	6.55	6.55
	Fenamiphos	54.4	36.5	80.4	75.5	39.4	6.38
	Fipronil	108	108	103	105	0.460	1.44
	Fipronil Desulfinyl	102	99.5	96.5	100	2.71	3.57
	Fipronil Sulfide	104	102	94.8	105	1.97	10.4
	Fipronil Sulfone	105	102	97.1	107	2.87	9.64
	Fonofos	98.8	95.1	92.4	96.0	3.79	3.75
	Gamma-BHC	124	128	154	123	2.51	22.1
	Gamma-Chlordane	75.2	88.8	91.1	87.8	16.6	3.69
	Heptachlor	67.2	80.4	77.7	78.0	17.9	0.394
	Heptachlor Epoxide	87.7	96.4	98.1	98.4	9.44	0.238
	Hexachlorobenzene	68.5	83.4	81.2	80.6	19.6	0.755
	Hexazinone	114	86.0	140	133	28.0	4.52
	Malathion	112	105	103	110	7.34	7.03
	Metalaxyl	38.8	27.9	72.6	45.9	32.6	45.0
	Methoxychlor	117	134	138	139	13.6	0.425
	Metolachlor	113	110	108	108	2.87	0.0794
	Metribuzin	116	104	126	123	10.9	2.30
	Mevinphos	88.3	82.4	85.4	80.6	6.92	5.82
	Mirex	51.3	68.8	72.2	67.8	29.0	6.30
	Molinate	100	90.1	88.7	85.4	10.9	3.78
	Norflurazon	107	100	100	102	6.34	2.00
	Oxadiazon	107	103	102	105	3.46	2.95
	Parathion Ethyl	95.7	96.4	93.6	94.3	0.704	0.776
	Parathion Methyl	99.3	91.9	94.0	89.6	7.76	4.72
	Pendimethalin	103	96.0	93.8	101	7.21	7.00
	Permethrin	65.3	79.0	84.3	80.4	19.0	4.74
	Phorate	92.2	80.2	82.8	78.5	14.0	5.34
	Prodiamine	101	99.7	100	109	1.19	8.20
	Prometon	94.9	78.2	98.8	77.0	19.2	24.8
	Prometryn	88.1	95.3	95.1	99.0	7.86	4.07
	Simazine	106	101	107	103	5.19	4.24
	Tebuconazole	89.7	91.3	97.7	85.7	1.83	13.1
	Terbufos	102	92.1	92.1	98.1	10.2	6.32
	Terbutylazine	111	105	104	109	5.62	4.84
	Trans-Nonachlor	72.9	87.0	85.8	84.3	17.6	1.70
	Trifluralin	92.0	106	108	107	14.3	1.54
EPA 8276	Chlordane	79.1	87.0	90.3	85.2	9.48	5.75
	Toxaphene	67.2	71.7	69.0	72.8	6.44	5.42
EPA 8321B	2,4-D	115		102	111		7.94

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	3-Hydroxycarbofuran	81.5	71.0	68.4			3.61
	Acesulfame K	118	83.1	82.1			1.17
	Acetaminophen	108	98.7	89.9			9.39
	Aldicarb	71.8	61.1	61.2			0.221
	Aldicarb Sulfone	80.8	87.2	86.7			0.599
	Aldicarb Sulfoxide	93.6	60.0	55.1			8.48
	AMPA	101	18.2	28.7			8.78
	Bentazon	79.7	67.4	55.3			18.5
	Carbamazepine	106	101	90.9			10.3
	Carbaryl	76.1	69.7	72.9			4.49
	Carbofuran	80.4	81.0	83.2			2.59
	Diuron	86.3	79.2	74.5			6.11
	Endothall	107	77.0	74.5			3.36
	Fenuron	97.2	95.5	91.9			3.85
	Fluridone	89.1	88.3	88.0			0.372
	Glufosinate	98.5	39.1	39.5			1.10
	Glyphosate	100	14.7	32.0			10.5
	Hydrocodone	99.4	120	104			14.3
	Ibuprofen	76.3	72.6	64.3			12.0
	Imazapyr	92.1	117	115			1.67
	Imidacloprid	103	178	167			6.00
	Linuron	67.3	66.4	61.2			8.10
	MCPP	137	127	126			0.876
	Methiocarb	66.4	61.9	62.3			0.578
	Methomyl	95.1	95.3	81.5			15.6
	Naproxen	80.9	78.1	76.4			2.12
	Oxamyl	104	93.0	101			7.87
	Primidone	97.7	80.0	79.6			0.591
	Propoxur	78.0	73.5	74.5			1.27
	Pyraclostrobin	77.0	83.3	78.0			6.51
	Sucralose	94.8	52.8	50.2			5.07
	Triclopyr	95.8	64.3	92.1			35.5
SM 2120 B	Color (true)	99.1				2.79	
	Color (true)	99.8				0.570	
	Color (true)	101				0.0682	
SM 2320 B-97	Total Alkalinity	105				0.211	
SM 2540 C-97	TDS					3.07	
	TDS					7.64	
SM 2540 D-97	TSS					3.08	
SM 4500 F-C-97	Fluoride	98.6	98.2	98.2			0.0
SM 5310 B-00	Organic Carbon	96.0	95.3	95.3			0.0

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2096049, 2096050, 2096055, 2096058, 2096061
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2096094, 2096095, 2096096
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2096094, 2096095, 2096096
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2096049, 2096050, 2096055, 2096058, 2096061

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2096049, 2096050, 2096055, 2096058, 2096061
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2096051, 2096052, 2096056, 2096059, 2096062
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2096051, 2096052, 2096056, 2096059, 2096062
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2096051, 2096052, 2096056, 2096059, 2096062
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2096051, 2096052, 2096056, 2096059, 2096062
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2096053, 2096054, 2096057, 2096060, 2096063
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2096088, 2096089, 2096092
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2096090, 2096091, 2096093
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2096088, 2096089, 2096092
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2096082, 2096083, 2096086
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2096084, 2096085, 2096087
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2096084, 2096085, 2096087
SM 2120 B / E31780	True Color measured at 450 nm	2096049, 2096050, 2096055, 2096058, 2096061
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2096049, 2096050, 2096055, 2096058, 2096061
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2096049, 2096050, 2096055, 2096058, 2096061
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2096049, 2096050, 2096055, 2096058, 2096061
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2096049, 2096050, 2096055, 2096058, 2096061
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2096051, 2096052, 2096056, 2096059, 2096062

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	06/18/2019			06/18/2019 17:00	Adrian Shelby	2096049, 2096050, 2096055, 2096058, 2096061
EPA 200.7 Rev. 4.4	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/20/2019 13:39	Betina Topolski	2096096
	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/20/2019 14:00	Betina Topolski	2096094
	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/20/2019 14:06	Betina Topolski	2096095
EPA 200.8 Rev. 5.4	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/22/2019 05:07	Robert K Palmer	2096096
	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/22/2019 05:35	Robert K Palmer	2096094
	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/22/2019 05:45	Robert K Palmer	2096095
	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/24/2019 21:10	Robert K Palmer	2096094
	06/18/2019	06/19/2019 16:40	Elliott D. Healy	06/24/2019 21:19	Robert K Palmer	2096095
EPA 300.0 Rev. 2.1	06/18/2019			06/19/2019 13:37	Lipi Saha	2096055
	06/18/2019			06/19/2019 16:27	Lipi Saha	2096049
	06/18/2019			06/19/2019 16:39	Lipi Saha	2096050
	06/18/2019			06/19/2019 16:51	Lipi Saha	2096058
	06/18/2019			06/19/2019 17:03	Lipi Saha	2096061
EPA 350.1 Rev. 2.0	06/18/2019			06/21/2019 12:12	Ping Hua	2096059
	06/18/2019			06/21/2019 12:26	Ping Hua	2096051
	06/18/2019			06/21/2019 12:27	Ping Hua	2096052
	06/18/2019			06/21/2019 12:29	Ping Hua	2096056
	06/18/2019			06/21/2019 12:41	Ping Hua	2096062
EPA 351.2 Rev. 2.0	06/18/2019	06/25/2019 10:55	Sima Feizi	06/26/2019 16:38	Virginia P. Brown	2096051
	06/18/2019	06/25/2019 10:55	Sima Feizi	06/26/2019 16:39	Virginia P. Brown	2096052
	06/18/2019	06/25/2019 10:55	Sima Feizi	06/26/2019 16:42	Virginia P. Brown	2096059
	06/18/2019	06/25/2019 10:55	Sima Feizi	06/26/2019 16:44	Virginia P. Brown	2096062
	06/18/2019	07/03/2019 12:30	Adrian Shelby	07/05/2019 10:08	Joseph Suarez	2096056
EPA 353.2 Rev. 2.0	06/18/2019			06/20/2019 11:58	Beverly Y. Sanders	2096051
	06/18/2019			06/20/2019 12:04	Beverly Y. Sanders	2096052
	06/18/2019			06/20/2019 12:05	Beverly Y. Sanders	2096056
	06/18/2019			06/20/2019 12:06	Beverly Y. Sanders	2096059
	06/18/2019			06/20/2019 12:07	Beverly Y. Sanders	2096062
EPA 365.1 Rev. 2.0	06/18/2019	06/20/2019 13:17	Sima Feizi	06/21/2019 09:57	Lipi Saha	2096051
	06/18/2019	06/20/2019 13:17	Sima Feizi	06/21/2019 09:58	Lipi Saha	2096052
	06/18/2019	06/20/2019 13:17	Sima Feizi	06/21/2019 10:01	Lipi Saha	2096056
	06/18/2019	06/20/2019 13:17	Sima Feizi	06/21/2019 10:23	Lipi Saha	2096059
	06/18/2019	06/20/2019 13:17	Sima Feizi	06/21/2019 14:40	Lipi Saha	2096062
EPA 365.1 Rev. 2.0 dissolved	06/18/2019			06/18/2019 16:57	Jhamieka S. Greenwood	2096063
	06/18/2019			06/18/2019 17:03	Jhamieka S. Greenwood	2096054
	06/18/2019			06/18/2019 17:12	Jhamieka S. Greenwood	2096053
	06/18/2019			06/18/2019 17:16	Jhamieka S. Greenwood	2096057
	06/18/2019			06/18/2019 17:22	Jhamieka S. Greenwood	2096060

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	06/18/2019	06/20/2019 09:00	Fe-Val Siddell	06/25/2019 01:06	Arthur Maknenko	2096088
	06/18/2019	06/20/2019 09:00	Fe-Val Siddell	06/25/2019 01:37	Arthur Maknenko	2096089
	06/18/2019	06/20/2019 09:00	Fe-Val Siddell	06/25/2019 02:09	Arthur Maknenko	2096092
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/25/2019 14:46	Vandana T. Nagar	2096090
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/25/2019 15:10	Vandana T. Nagar	2096091
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/25/2019 15:34	Vandana T. Nagar	2096093
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/27/2019 12:53	Vandana T. Nagar	2096090
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/27/2019 13:17	Vandana T. Nagar	2096090
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/27/2019 13:41	Vandana T. Nagar	2096090
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/27/2019 14:05	Vandana T. Nagar	2096091
	06/18/2019	06/21/2019 08:30	Rasheda Ghaffari	06/27/2019 14:29	Vandana T. Nagar	2096091
EPA 8276	06/18/2019	06/20/2019 09:00	Fe-Val Siddell	06/25/2019 01:26	Dinesh Mishra	2096088
	06/18/2019	06/20/2019 09:00	Fe-Val Siddell	06/25/2019 02:21	Dinesh Mishra	2096089
	06/18/2019	06/20/2019 09:00	Fe-Val Siddell	06/25/2019 03:17	Dinesh Mishra	2096092
EPA 8321B	06/18/2019	06/18/2019 14:00	Joshua Hartstein	06/19/2019 14:30	Juyoung Kim	2096082
	06/18/2019	06/18/2019 14:00	Joshua Hartstein	06/19/2019 15:04	Juyoung Kim	2096083
	06/18/2019	06/18/2019 14:00	Joshua Hartstein	06/19/2019 15:39	Juyoung Kim	2096086
	06/18/2019	06/19/2019 09:00	Hoor Shaik	06/20/2019 12:25	Juyoung Kim	2096084
	06/18/2019	06/19/2019 09:00	Hoor Shaik	06/20/2019 13:00	Juyoung Kim	2096085
	06/18/2019	06/19/2019 09:00	Hoor Shaik	06/20/2019 13:34	Juyoung Kim	2096087
	06/18/2019	06/19/2019 09:00	Hoor Shaik	06/30/2019 07:45	Juyoung Kim	2096085
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 12:02	Rebecca Ware	2096084
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 12:16	Rebecca Ware	2096085
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 12:30	Rebecca Ware	2096087
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 11:01	Rebecca Ware	2096084
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 11:12	Rebecca Ware	2096085
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 11:22	Rebecca Ware	2096087
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/26/2019 22:18	Rebecca Ware	2096084
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/26/2019 22:53	Rebecca Ware	2096085
	06/18/2019	06/20/2019 10:45	Rebecca Ware	06/26/2019 23:05	Rebecca Ware	2096087
SM 2120 B	06/18/2019			06/18/2019 15:49	Madeline Funaro	2096049
	06/18/2019			06/18/2019 15:54	Madeline Funaro	2096055
	06/18/2019			06/18/2019 15:55	Madeline Funaro	2096058
	06/18/2019			06/18/2019 15:58	Madeline Funaro	2096061
	06/18/2019			06/18/2019 16:21	Madeline Funaro	2096050
SM 2320 B-97	06/18/2019			06/22/2019 09:31	Dale L. Simmons	2096049
	06/18/2019			06/22/2019 09:44	Dale L. Simmons	2096050
	06/18/2019			06/22/2019 09:57	Dale L. Simmons	2096055
	06/18/2019			06/22/2019 10:09	Dale L. Simmons	2096058
	06/18/2019			06/22/2019 10:24	Dale L. Simmons	2096061

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 C-97	06/18/2019			06/19/2019 15:22	Yijie Li	2096049, 2096050, 2096055, 2096058, 2096061
SM 2540 D-97	06/18/2019			06/19/2019 15:22	Yijie Li	2096049, 2096050, 2096055, 2096058, 2096061
SM 4500 F-C-97	06/18/2019			06/22/2019 09:31	Dale L. Simmons	2096049
	06/18/2019			06/22/2019 09:44	Dale L. Simmons	2096050
	06/18/2019			06/22/2019 09:57	Dale L. Simmons	2096055
	06/18/2019			06/22/2019 10:09	Dale L. Simmons	2096058
	06/18/2019			06/22/2019 10:24	Dale L. Simmons	2096061
SM 5310 B-00	06/18/2019			06/19/2019 05:45	Madeline Funaro	2096051
	06/18/2019			06/19/2019 05:59	Madeline Funaro	2096052
	06/18/2019			06/19/2019 06:39	Madeline Funaro	2096056
	06/18/2019			06/19/2019 06:52	Madeline Funaro	2096059
	06/18/2019			06/19/2019 07:05	Madeline Funaro	2096062