

Chemical Analysis Report

WQAP-2016-09-22-08

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

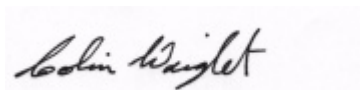
Event Description: **Central Drainage Ditch, Lake Talquin, Lake Tallavanna and
Stafford Creek**
Request ID: **RQ-2016-09-19-45**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Katrina Sanders

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Certified by: Colin Wright, Environmental Administrator

Date Certified: 20-OCT-2016 09:54

A handwritten signature in black ink, appearing to read "Colin Wright", is written over a light blue rectangular background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: 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 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: CENTRAL DRAINAGE DITCH

Collection Date/Time: 09/22/2016 08:26

Field ID: G1WA0026_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834065	EPA 180.1 Rev. 2.0	Turbidity	3.4	A	NTU	P311686	
	EPA 300.0 Rev. 2.1	Chloride	4.5		mg Cl/L	P312302	
		Sulfate	4.2		mg SO4/L	P312304	
	SM 2120 B	Color (true)	25		PCU	P311913	
	SM 2320 B-97	Total Alkalinity	71		mg CaCO3/L	P311965	
	SM 2540 C-97	TDS	118		mg/L	P312651	
	SM 2540 D-97	TSS	4	I	mg/L	P312180	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P311969	
1834070	EPA 350.1 Rev. 2.0	Ammonia-N	0.058		mg N/L	P312347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P312211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P312135	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P312402	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P312088	
1834075	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.066		mg P/L	P311762	

Ref. Method and Comment:

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

Sample Location: MEGGINNIS ARM RUN DOWNSTREAM OF SHARER

Collection Date/Time: 09/22/2016 09:26

Field ID: G1WA0033_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834066	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P311686	
	EPA 300.0 Rev. 2.1	Chloride	7.6		mg Cl/L	P312302	
		Sulfate	1.7		mg SO4/L	P312304	
	SM 2120 B	Color (true)	23		PCU	P311913	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P311965	
	SM 2540 C-97	TDS	97		mg/L	P312651	
	SM 2540 D-97	TSS	3	I	mg/L	P312180	
	SM 4500 F-C-97	Fluoride	0.094	I	mg F/L	P311969	
1834071	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P312347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P312211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062		mg N/L	P312136	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P312403	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P312088	
1834076	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.077		mg P/L	P311762	

Ref. Method and Comment:

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

Sample Location: LAKE TALQUIN MIDDLE

Collection Date/Time: 09/22/2016 10:22

Field ID: G1WA0032_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834067	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P311686	
	EPA 300.0 Rev. 2.1	Chloride	5.9		mg Cl/L	P312256	

Field ID: G1WA0032_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834067	EPA 300.0 Rev. 2.1	Sulfate	3.4		mg SO4/L	P312253	
	SM 2120 B	Color (true)	76		PCU	P311913	
	SM 2320 B-97	Total Alkalinity	17		mg CaCO3/L	P311965	
	SM 2540 C-97	TDS	56		mg/L	P312651	
	SM 2540 D-97	TSS	6	I	mg/L	P312180	
	SM 4500 F-C-97	Fluoride	0.094	I	mg F/L	P311969	
1834072	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P312347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P312211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P312136	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P312403	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P312088	
1834077	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.01	I	mg P/L	P311762	

Ref. Method and Comment:

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

Sample Location: STAFFORD CREEK 100 METERS UPSTREAM
OF SR 69

Collection Date/Time: 09/22/2016 11:46

Field ID: G2WA0004_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834068	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P311686	
	EPA 300.0 Rev. 2.1	Chloride	8.2		mg Cl/L	P312302	
		Sulfate	1.2		mg SO4/L	P312304	
	SM 2120 B	Color (true)	110		PCU	P311913	
	SM 2320 B-97	Total Alkalinity	15		mg CaCO3/L	P311965	
	SM 2540 C-97	TDS	57		mg/L	P312652	
	SM 2540 D-97	TSS	2	I	mg/L	P312181	
1834073	SM 4500 F-C-97	Fluoride	0.044	I	mg F/L	P311969	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P312347	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P312211	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P312136	
	EPA 365.1 Rev. 2.0	Total-P	0.04		mg P/L	P312403	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P312088	
1834078	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P311762	

Sample Location: TALLAVANNA LAKE

Collection Date/Time: 09/22/2016 14:00

Field ID: G1WA0045_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834069	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P311686	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P312256	
		Sulfate	37		mg SO4/L	P312253	
	SM 2120 B	Color (true)	26	A	PCU	P311913	
	SM 2320 B-97	Total Alkalinity	62		mg CaCO3/L	P311965	
	SM 2540 C-97	TDS	144	A	mg/L	P312652	
	SM 2540 D-97	TSS	12	A	mg/L	P312181	

Field ID: G1WA0045_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834069	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P311969	
1834074	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P312619	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P312213	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P312136	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P312403	
	SM 5310 B-00	Organic Carbon	8.9		mg C/L	P312088	
1834079	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.30		mg P/L	P311762	

Sample Location: CENTRAL DRAINAGE DITCH

Collection Date/Time: 09/22/2016 08:26

Field ID: G1WA0026_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834094	EPA 8321B	Glyphosate**	10	U	ug/L	P311485	
	USGS O-2060-01	2,4-D	0.035		ug/L	P311587	
		Diuron	0.017		ug/L	P311587	
		2,4-DB	0.0020	U	ug/L	P311587	
		Fenuron	0.0080	U	ug/L	P311587	
		2,4,5-T	0.0020	U	ug/L	P311587	
		Acifluorfen	0.0020	U	ug/L	P311587	
		Imidacloprid	0.019	J	ug/L	P311587	MS
		Bentazon	0.0020	U	ug/L	P311587	
		Linuron	0.0040	U	ug/L	P311587	
		Dichlorprop	0.0020	U	ug/L	P311587	
		Dinoseb	0.020	U	ug/L	P311587	
		MCPA	0.0040	U	ug/L	P311587	
		MCP	0.0040	U	ug/L	P311587	
		Silvex	0.0020	U	ug/L	P311587	
1834102	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P311628	
		Alpha-BHC	0.0019	U	ug/L	P311628	
		Beta-BHC	0.0019	U	ug/L	P311628	
		Delta-BHC	0.0019	U	ug/L	P311628	
		Gamma-BHC	0.0019	U	ug/L	P311628	
		Carbophenothion	0.0058	UJ	ug/L	P311628	CCV
		Chlorothalonil	0.0077	U	ug/L	P311628	
		Cypermethrin	0.012	U	ug/L	P311628	
		DDD-p,p'	0.0039	U	ug/L	P311628	
		DDE-p,p'	0.0039	U	ug/L	P311628	
		DDT-p,p'	0.0039	UJ	ug/L	P311628	CCV
		Dicofol	0.023	UJ	ug/L	P311628	CCV
		Dieldrin	0.0019	U	ug/L	P311628	
		Endosulfan I	0.0019	U	ug/L	P311628	
		Endosulfan II	0.0019	U	ug/L	P311628	
		Endosulfan Sulfate	0.0039	U	ug/L	P311628	
		Endrin	0.0039	U	ug/L	P311628	

Field ID: G1WA0026_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834102	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Endrin Aldehyde	0.0039	U	ug/L	P311628	
		Heptachlor	0.0019	U	ug/L	P311628	
		Heptachlor Epoxide	0.0019	U	ug/L	P311628	
		Methoxychlor	0.0097	UJ	ug/L	P311628	CCV
		Mirex	0.0039	U	ug/L	P311628	
		Permethrin	0.0097	U	ug/L	P311628	
1834106	EPA 8270D	Trifluralin	0.011	I	ug/L	P311628	
		Ametryn	0.32	U	ng/L	P311949	
		Atrazine	8.0		ng/L	P311949	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P311949	
		Chlorpyrifos Methyl	0.098	U	ng/L	P311949	
		Disulfoton	0.32	U	ng/L	P311949	
		Ethion	0.15	U	ng/L	P311949	
		Ethoprop	0.098	U	ng/L	P311949	
		Hexazinone	0.84	I	ng/L	P311949	
		Malathion	0.34	U	ng/L	P311949	
		Metribuzin	0.20	UJ	ng/L	P311949	LCS, MS, RPD
		Mevinphos	0.49	U	ng/L	P311949	
		Norflurazon	0.49	U	ng/L	P311949	
		Phorate	0.24	U	ng/L	P311949	
		Prometryn	0.20	U	ng/L	P311949	
		Simazine	0.61	I	ng/L	P311949	
		Atrazine Desethyl	1.5	U	ng/L	P311949	
		Prometon	5.7		ng/L	P311949	
		Fipronil	1.7		ng/L	P311949	
		Molinate	0.29	U	ng/L	P311949	
		Pendimethalin	1.5	U	ng/L	P311949	
		Terbufos	0.098	U	ng/L	P311949	
		EPTC	1.2	U	ng/L	P311949	
		Terbutylazine	0.41	U	ng/L	P311949	
		Bromacil	6.2		ng/L	P311949	
		Fipronil Sulfide	0.73		ng/L	P311949	
		Fipronil Sulfone	2.5		ng/L	P311949	
		Alachlor	0.24	U	ng/L	P311949	
		Azinphos Methyl	2.2	U	ng/L	P311949	
		Butylate	0.39	U	ng/L	P311949	
		Demeton	0.98	U	ng/L	P311949	
		Diazinon	0.12	U	ng/L	P311949	
		Fenamiphos	0.24	U	ng/L	P311949	
		Fonofos	0.20	U	ng/L	P311949	
		Metalaxyl	0.20	U	ng/L	P311949	
		Metolachlor	0.65	I	ng/L	P311949	
		Acetochlor	0.24	U	ng/L	P311949	

Field ID: G1WA0026_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834106	EPA 8270D	Cyanazine	0.49	UJ	ng/L	P311949	RPD
		Parathion Ethyl	0.24	U	ng/L	P311949	
		Parathion Methyl	0.24	U	ng/L	P311949	

Ref. Method and Comment:

USGS O-2060-01: Acetaminophen = 0.0060 I ug/L. Refer to the narrative for an explanation of QC Codes.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

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

Sample Location: LAKE TALQUIN MIDDLE

Collection Date/Time: 09/22/2016 10:22

Field ID: G1WA0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834095	EPA 8321B	Glyphosate**	10	U	ug/L	P311485	
	USGS O-2060-01	2,4-D	0.013	I	ug/L	P311587	
		Diuron	0.014	I	ug/L	P311587	
		2,4-DB	0.0020	U	ug/L	P311587	
		Fenuron	0.0080	U	ug/L	P311587	
		2,4,5-T	0.0020	U	ug/L	P311587	
		Acifluorfen	0.0020	U	ug/L	P311587	
		Imidacloprid	0.0085	I	ug/L	P311587	MS
		Bentazon	0.0087		ug/L	P311587	
		Linuron	0.0040	U	ug/L	P311587	
		Dichlorprop	0.0020	U	ug/L	P311587	
		Dinoseb	0.020	U	ug/L	P311587	
		MCPA	0.0040	U	ug/L	P311587	
		MCPP	0.0040	U	ug/L	P311587	
		Silvex	0.0020	U	ug/L	P311587	
		Aldrin	0.0020	U	ug/L	P311628	
1834103	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Alpha-BHC	0.0020	U	ug/L	P311628	
		Beta-BHC	0.0020	U	ug/L	P311628	
		Delta-BHC	0.0020	U	ug/L	P311628	
		Gamma-BHC	0.0020	U	ug/L	P311628	
		Carbophenothion	0.0059	UJ	ug/L	P311628	CCV
		Chlorothalonil	0.0079	U	ug/L	P311628	
		Cypermethrin	0.012	U	ug/L	P311628	
		DDD-p,p'	0.0039	U	ug/L	P311628	
		DDE-p,p'	0.0039	U	ug/L	P311628	
		DDT-p,p'	0.0039	UJ	ug/L	P311628	CCV
		Dicofol	0.024	UJ	ug/L	P311628	CCV
		Dieldrin	0.0020	U	ug/L	P311628	
		Endosulfan I	0.0020	U	ug/L	P311628	
		Endosulfan II	0.0020	U	ug/L	P311628	
		Endosulfan Sulfate	0.0039	U	ug/L	P311628	
		Endrin	0.0039	U	ug/L	P311628	
		Endrin Aldehyde	0.0039	U	ug/L	P311628	

Field ID: G1WA0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834103	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Heptachlor	0.0020	U	ug/L	P311628	
		Heptachlor Epoxide	0.0020	U	ug/L	P311628	
		Methoxychlor	0.0098	UJ	ug/L	P311628	CCV
		Mirex	0.0039	U	ug/L	P311628	
		Permethrin	0.0098	U	ug/L	P311628	
		Trifluralin	0.0079	U	ug/L	P311628	
1834107	EPA 8270D	Ametryn	0.32	U	ng/L	P311949	
		Atrazine	5.6		ng/L	P311949	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P311949	
		Chlorpyrifos Methyl	0.099	U	ng/L	P311949	
		Disulfoton	0.32	U	ng/L	P311949	
		Ethion	0.15	U	ng/L	P311949	
		Ethoprop	0.099	U	ng/L	P311949	
		Hexazinone	1.8	I	ng/L	P311949	
		Malathion	0.35	U	ng/L	P311949	
		Metribuzin	2.6	J	ng/L	P311949	LCS, MS, RPD
		Mevinphos	0.49	U	ng/L	P311949	
		Norflurazon	4.3		ng/L	P311949	
		Phorate	0.25	U	ng/L	P311949	
		Prometryn	0.20	U	ng/L	P311949	
		Simazine	1.7	I	ng/L	P311949	
		Atrazine Desethyl	1.6	I	ng/L	P311949	
		Prometon	0.89	U	ng/L	P311949	
		Fipronil	0.25	U	ng/L	P311949	
		Molinate	0.30	U	ng/L	P311949	
		Pendimethalin	1.5	U	ng/L	P311949	
		Terbufos	0.099	U	ng/L	P311949	
		EPTC	1.2	U	ng/L	P311949	
		Terbutylazine	0.42	U	ng/L	P311949	
		Bromacil	2.6		ng/L	P311949	
		Fipronil Sulfide	0.15	U	ng/L	P311949	
		Fipronil Sulfone	0.15	U	ng/L	P311949	
		Alachlor	0.25	U	ng/L	P311949	
		Azinphos Methyl	2.2	U	ng/L	P311949	
		Butylate	0.39	U	ng/L	P311949	
		Demeton	0.99	U	ng/L	P311949	
		Diazinon	0.12	U	ng/L	P311949	
		Fenamiphos	0.25	U	ng/L	P311949	
		Fonofos	0.20	U	ng/L	P311949	
		Metalaxyl	1.1		ng/L	P311949	
		Metolachlor	42		ng/L	P311949	
		Acetochlor	2.8		ng/L	P311949	
		Cyanazine	0.49	UJ	ng/L	P311949	RPD

Field ID: G1WA0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834107	EPA 8270D	Parathion Ethyl	0.25	U	ng/L	P311949	
		Parathion Methyl	0.25	U	ng/L	P311949	

Ref. Method and Comment:

USGS O-2060-01: Results confirmed in re-extraction.

USGS O-2060-01: Carbamazepine = 0.0011 I ug/L. Results confirmed in re-extraction.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

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

**Sample Location: STAFFORD CREEK 100 METERS UPSTREAM
OF SR 69**

Collection Date/Time: 09/22/2016 11:46

Field ID: G2WA0004_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834096	EPA 8321B	Glyphosate**	10	U	ug/L	P311485	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P311958	
		Diuron	0.0040	U	ug/L	P311958	
		2,4-DB	0.0020	U	ug/L	P311958	
		Fenuron	0.0080	U	ug/L	P311958	
		2,4,5-T	0.0020	U	ug/L	P311958	
		Acifluorfen	0.0020	UJ	ug/L	P311958	MS, RPD
		Imidacloprid	0.0040	UJ	ug/L	P311958	MS
		Bentazon	0.0020	UJ	ug/L	P311958	MS
		Linuron	0.0040	U	ug/L	P311958	
		Dichlorprop	0.0020	U	ug/L	P311958	
		Dinoseb	0.020	UJ	ug/L	P311958	RPD
		MCPA	0.0040	U	ug/L	P311958	
		MCPP	0.0040	U	ug/L	P311958	
		Silvex	0.0020	U	ug/L	P311958	
1834104	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P311628	
		Alpha-BHC	0.0019	U	ug/L	P311628	
		Beta-BHC	0.0019	U	ug/L	P311628	
		Delta-BHC	0.0019	U	ug/L	P311628	
		Gamma-BHC	0.0019	U	ug/L	P311628	
		Carbophenothion	0.0058	UJ	ug/L	P311628	CCV
		Chlorothalonil	0.0077	U	ug/L	P311628	
		Cypermethrin	0.012	U	ug/L	P311628	
		DDD-p,p'	0.0038	U	ug/L	P311628	
		DDE-p,p'	0.0038	U	ug/L	P311628	
		DDT-p,p'	0.0038	UJ	ug/L	P311628	CCV
		Dicofol	0.023	UJ	ug/L	P311628	CCV
		Dieldrin	0.0019	U	ug/L	P311628	
		Endosulfan I	0.0019	U	ug/L	P311628	
		Endosulfan II	0.0019	U	ug/L	P311628	
		Endosulfan Sulfate	0.0038	U	ug/L	P311628	
		Endrin	0.0038	U	ug/L	P311628	
		Endrin Aldehyde	0.0038	U	ug/L	P311628	

Field ID: G2WA0004_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834104	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Heptachlor	0.0019	U	ug/L	P311628	
		Heptachlor Epoxide	0.0019	U	ug/L	P311628	
		Methoxychlor	0.0096	UJ	ug/L	P311628	CCV
		Mirex	0.0038	U	ug/L	P311628	
		Permethrin	0.0096	U	ug/L	P311628	
1834108	EPA 8270D	Trifluralin	0.0077	U	ug/L	P311628	
		Ametryn	0.32	U	ng/L	P311949	
		Atrazine	0.24	U	ng/L	P311949	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P311949	
		Chlorpyrifos Methyl	0.098	U	ng/L	P311949	
		Disulfoton	0.32	U	ng/L	P311949	
		Ethion	0.15	U	ng/L	P311949	
		Ethoprop	0.098	U	ng/L	P311949	
		Hexazinone	0.49	U	ng/L	P311949	
		Malathion	0.34	U	ng/L	P311949	
		Metribuzin	0.20	UJ	ng/L	P311949	LCS, MS, RPD
		Mevinphos	0.49	U	ng/L	P311949	
		Norflurazon	0.49	U	ng/L	P311949	
		Phorate	0.24	U	ng/L	P311949	
		Prometryn	0.20	U	ng/L	P311949	
		Simazine	0.49	U	ng/L	P311949	
		Atrazine Desethyl	1.5	U	ng/L	P311949	
		Prometon	0.88	U	ng/L	P311949	
		Fipronil	0.24	U	ng/L	P311949	
		Molinate	0.29	U	ng/L	P311949	
		Pendimethalin	1.5	U	ng/L	P311949	
		Terbufos	0.098	U	ng/L	P311949	
		EPTC	1.2	U	ng/L	P311949	
		Terbutylazine	0.42	U	ng/L	P311949	
		Bromacil	0.49	U	ng/L	P311949	
		Fipronil Sulfide	0.15	U	ng/L	P311949	
		Fipronil Sulfone	0.15	U	ng/L	P311949	
		Alachlor	0.24	U	ng/L	P311949	
		Azinphos Methyl	2.2	U	ng/L	P311949	
		Butylate	0.39	U	ng/L	P311949	
		Demeton	0.98	U	ng/L	P311949	
		Diazinon	0.12	U	ng/L	P311949	
		Fenamiphos	0.24	U	ng/L	P311949	
		Fonofos	0.20	U	ng/L	P311949	
		Metalaxyl	0.20	U	ng/L	P311949	
		Metolachlor	3.8		ng/L	P311949	
		Acetochlor	0.24	U	ng/L	P311949	
		Cyanazine	0.49	UJ	ng/L	P311949	RPD

Field ID: G2WA0004_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834108	EPA 8270D	Parathion Ethyl	0.24	U	ng/L	P311949	
		Parathion Methyl	0.24	U	ng/L	P311949	

Ref. Method and Comment:

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

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

Sample Location: TALLAVANNA LAKE

Collection Date/Time: 09/22/2016 14:00

Field ID: G1WA0045_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834097	EPA 8321B	Glyphosate**	10	U	ug/L	P311485	
	USGS O-2060-01	2,4-D	0.45		ug/L	P311958	
		Diuron	0.0040	U	ug/L	P311958	
		2,4-DB	0.0020	U	ug/L	P311958	
		Fenuron	0.0080	U	ug/L	P311958	
		2,4,5-T	0.0020	U	ug/L	P311958	
		Acifluorfen	0.0020	U	ug/L	P311958	MS, RPD
		Imidacloprid	0.0040	U	ug/L	P311958	MS
		Bentazon	0.0054	I	ug/L	P311958	MS
		Linuron	0.0040	U	ug/L	P311958	
		Dichlorprop	0.0020	U	ug/L	P311958	
		Dinoseb	0.020	U	ug/L	P311958	RPD
		MCPA	0.0040	U	ug/L	P311958	
		MCPP	0.0040	U	ug/L	P311958	
		Silvex	0.0020	U	ug/L	P311958	
1834105	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P311628	
		Alpha-BHC	0.0019	U	ug/L	P311628	
		Beta-BHC	0.0019	U	ug/L	P311628	
		Delta-BHC	0.0019	U	ug/L	P311628	
		Gamma-BHC	0.0019	U	ug/L	P311628	
		Carbophenothion	0.0057	UJ	ug/L	P311628	CCV
		Chlorothalonil	0.0076	U	ug/L	P311628	
		Cypermethrin	0.011	U	ug/L	P311628	
		DDD-p,p'	0.0038	U	ug/L	P311628	
		DDE-p,p'	0.0038	U	ug/L	P311628	
		DDT-p,p'	0.0038	UJ	ug/L	P311628	CCV
		Dicofol	0.023	UJ	ug/L	P311628	CCV
		Dieldrin	0.0019	U	ug/L	P311628	
		Endosulfan I	0.0019	U	ug/L	P311628	
		Endosulfan II	0.0019	U	ug/L	P311628	
		Endosulfan Sulfate	0.0038	U	ug/L	P311628	
		Endrin	0.0038	U	ug/L	P311628	
		Endrin Aldehyde	0.0038	U	ug/L	P311628	
		Heptachlor	0.0019	U	ug/L	P311628	

Field ID: G1WA0045_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834105	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Heptachlor Epoxide	0.0019	U	ug/L	P311628	
		Methoxychlor	0.0095	UJ	ug/L	P311628	CCV
		Mirex	0.0038	U	ug/L	P311628	
		Permethrin	0.0095	U	ug/L	P311628	
1834109	EPA 8270D	Trifluralin	0.0076	U	ug/L	P311628	
		Ametryn	0.62	I	ng/L	P311949	
		Atrazine	8.7		ng/L	P311949	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P311949	
		Chlorpyrifos Methyl	0.097	U	ng/L	P311949	
		Disulfoton	0.31	U	ng/L	P311949	
		Ethion	0.14	U	ng/L	P311949	
		Ethoprop	0.097	U	ng/L	P311949	
		Hexazinone	0.48	U	ng/L	P311949	
		Malathion	0.34	U	ng/L	P311949	
		Metribuzin	0.19	UJ	ng/L	P311949	LCS, MS, RPD
		Mevinphos	0.48	U	ng/L	P311949	
		Norflurazon	0.48	U	ng/L	P311949	
		Phorate	0.24	U	ng/L	P311949	
		Prometryn	0.19	U	ng/L	P311949	
		Simazine	47		ng/L	P311949	
		Atrazine Desethyl	1.9	I	ng/L	P311949	
		Prometon	0.87	U	ng/L	P311949	
		Fipronil	0.24	U	ng/L	P311949	
		Molinate	0.29	U	ng/L	P311949	
		Pendimethalin	1.4	U	ng/L	P311949	
		Terbufos	0.097	U	ng/L	P311949	
		EPTC	1.2	U	ng/L	P311949	
		Terbutylazine	0.41	U	ng/L	P311949	
		Bromacil	0.48	U	ng/L	P311949	
		Fipronil Sulfide	0.14	U	ng/L	P311949	
		Fipronil Sulfone	0.14	U	ng/L	P311949	
		Alachlor	0.24	U	ng/L	P311949	
		Azinphos Methyl	2.2	U	ng/L	P311949	
		Butylate	0.39	U	ng/L	P311949	
		Demeton	0.97	U	ng/L	P311949	
		Diazinon	0.12	U	ng/L	P311949	
		Fenamiphos	0.24	U	ng/L	P311949	
		Fonofos	0.19	U	ng/L	P311949	
		Metalaxyl	54		ng/L	P311949	
		Metolachlor	0.32	I	ng/L	P311949	
		Acetochlor	0.24	U	ng/L	P311949	
		Cyanazine	0.48	UJ	ng/L	P311949	RPD
		Parathion Ethyl	0.24	U	ng/L	P311949	

Field ID: G1WA0045_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834109	EPA 8270D	Parathion Methyl	0.24	U	ng/L	P311949	

Ref. Method and Comment:

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

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

Sample Location: STAFFORD CREEK 100 METERS UPSTREAM OF SR69 Collection Date/Time: 09/22/2016 11:46

Field ID: G2WA0004_09222016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1834140	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P311563	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P311628

Component	Result	Code	Units
Aldrin	0.0020	U	ug/L
Alpha-BHC	0.0020	U	ug/L
Beta-BHC	0.0020	U	ug/L
Carbophenothion	0.0060	U	ug/L
Chlorothalonil	0.0080	U	ug/L
Cypermethrin	0.012	U	ug/L
DDD-p,p'	0.0040	U	ug/L
DDE-p,p'	0.0040	U	ug/L
DDT-p,p'	0.0040	U	ug/L
Delta-BHC	0.0020	U	ug/L
Dicofol	0.024	U	ug/L
Dieldrin	0.0020	U	ug/L
Endosulfan I	0.0020	U	ug/L
Endosulfan II	0.0020	U	ug/L
Endosulfan Sulfate	0.0040	U	ug/L
Endrin	0.0040	U	ug/L
Endrin Aldehyde	0.0040	U	ug/L
Gamma-BHC	0.0020	U	ug/L
Heptachlor	0.0020	U	ug/L
Heptachlor Epoxide	0.0020	U	ug/L
Methoxychlor	0.010	U	ug/L
Mirex	0.0040	U	ug/L
Permethrin	0.010	U	ug/L
Trifluralin	0.0080	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P311686

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312253

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312256

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312302

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312304

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312347

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312211

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312213

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312135

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312136

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312402

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312403

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P311762

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

Reference Method: EPA 8270D
Batch ID: P311949

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	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	0.50	U	ng/L
Demeton	1.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	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	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P311949

Component	Result	Code	Units
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P311485

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P311563

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P311913

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P311965

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

Reference Method: SM 2540 C-97
Batch ID: P312651

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P312652

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P312180

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P312181

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P312181

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P311969

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P312088

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

Reference Method: USGS O-2060-01
Batch ID: P311587

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0040	U	ug/L
2,4-DB	0.0020	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPA	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Silvex	0.0020	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P311958

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0040	U	ug/L
2,4-DB	0.0020	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPA	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Silvex	0.0020	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P311628

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	83.5	90.8	P/P	70 - 130
Alpha-BHC	82.3	91.2	P/P	70 - 130
Beta-BHC	104	113	P/P	70 - 130
DDD-p,p'	99.1	113	P/P	70 - 130
DDE-p,p'	98.2	108	P/P	70 - 130
DDT-p,p'	109	122	P/P	70 - 130
Delta-BHC	98.8	109	P/P	70 - 130
Dieldrin	95.9	105	P/P	70 - 130
Endosulfan I	98.4	109	P/P	70 - 130
Endosulfan II	103	114	P/P	70 - 130
Endosulfan Sulfate	124	126	P/P	70 - 130
Endrin	107	117	P/P	81 - 147
Endrin Aldehyde	107	112	P/P	70 - 130
Gamma-BHC	89.3	95.4	P/P	70 - 130
Heptachlor	74.9	84.6	P/P	70 - 130
Heptachlor Epoxide	94.7	104	P/P	70 - 130
Methoxychlor	124	132	P/P	86 - 145

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312253

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312256

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312302

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312304

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P312347

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P312619

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312211

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312213

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312135

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312136

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312403

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: P311762

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

Reference Method: EPA 8270D
Batch ID: P311949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	94.5	94.2	P/P	80 - 119
Alachlor	96.2	94.4	P/P	80 - 120
Ametryn	114	89.9	P/P	60 - 135
Atrazine	102	103	P/P	72 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P311949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	73.4	61.3	P/P	14 - 124
Azinphos Methyl	132	111	P/P	74 - 186
Bromacil	94.5	95.7	P/P	38 - 125
Butylate	50.3	59.5	P/P	34 - 88.0
Chlorpyrifos Ethyl	93.4	84.8	P/P	53 - 108
Chlorpyrifos Methyl	83.2	80.9	P/P	29 - 119
Cyanazine	155	99.7	P/P	30 - 240
Demeton	92.2	82.3	P/P	35 - 127
Diazinon	99.8	97.8	P/P	75 - 121
Disulfoton	92.6	97.7	P/P	40 - 141
EPTC	51.4	58.9	P/P	36 - 96.0
Ethion	110	111	P/P	64 - 127
Ethoprop	84.5	81.7	P/P	65 - 108
Fenamiphos	106	95.9	P/P	62 - 140
Fipronil	96.0	99.1	P/P	59 - 127
Fipronil Sulfide	94.0	96.7	P/P	55 - 126
Fipronil Sulfone	96.5	89.5	P/P	56 - 127
Fonofos	99.4	85.9	P/P	64 - 111
Hexazinone	111	112	P/P	43 - 153
Malathion	110	107	P/P	70 - 129
Metalaxyl	97.2	96.5	P/P	49 - 135
Metolachlor	97.5	98.6	P/P	81 - 120
Metribuzin	164	91.8	F/P	66 - 133
Mevinphos	76.8	62.4	P/P	33 - 128
Molinate	68.8	66.7	P/P	46 - 101
Norflurazon	102	98.2	P/P	62 - 131
Parathion Ethyl	100	95.1	P/P	80 - 109
Parathion Methyl	88.9	86.5	P/P	76 - 126
Pendimethalin	88.6	85.3	P/P	47 - 137
Phorate	97.7	82.1	P/P	51 - 115
Prometon	110	97.2	P/P	67 - 123
Prometryn	118	98.1	P/P	66 - 122
Simazine	109	108	P/P	60 - 134
Terbufos	95.9	89.5	P/P	56 - 116
Terbuthylazine	94.4	101	P/P	77 - 114

Reference Method: EPA 8321B
Batch ID: P311485

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	82.8		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P311563

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	108		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P311965

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

Reference Method: SM 2320 B-97
 Batch ID: P311965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
 Batch ID: P311969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P312088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.3		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P311587

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	75.6		P	40 - 140
2,4-D	86.8		P	40 - 140
2,4-DB	105		P	40 - 140
Acifluorfen	49.2		P	40 - 140
Bentazon	97.2		P	40 - 140
Dichlorprop	86.4		P	40 - 140
Dinoseb	74.8		P	40 - 140
Diuron	76.4		P	40 - 140
Fenuron	106		P	40 - 140
Imidacloprid	94.0		P	40 - 160
Linuron	91.6		P	40 - 140
MCPA	83.2		P	40 - 140
MCPP	82.0		P	40 - 140
Silvex	78.0		P	40 - 140

Reference Method: USGS O-2060-01
 Batch ID: P311958

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	78.8		P	40 - 140
2,4-D	86.4		P	40 - 140
2,4-DB	46.8		P	40 - 140
Acifluorfen	116		P	40 - 140
Bentazon	114		P	40 - 140
Dichlorprop	94.4		P	40 - 140
Dinoseb	84.8		P	40 - 140
Diuron	82.4		P	40 - 140
Fenuron	103		P	40 - 140
Imidacloprid	108		P	40 - 160
Linuron	89.6		P	40 - 140
MCPA	91.6		P	40 - 140
MCPP	95.2		P	40 - 140
Silvex	92.4		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P311628

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1833407	Aldrin	86.4	78.9	P/P	70 - 130
1833407	Alpha-BHC	85.8	83.8	P/P	70 - 130
1833407	Beta-BHC	113	100	P/P	70 - 130
1833407	DDD-p,p'	104	104	P/P	70 - 130
1833407	DDE-p,p'	106	102	P/P	70 - 130
1833407	DDT-p,p'	121	123	P/P	70 - 130
1833407	Delta-BHC	111	99.4	P/P	70 - 130
1833407	Dieldrin	98.4	95.0	P/P	70 - 130
1833407	Endosulfan I	108	98.1	P/P	70 - 130
1833407	Endosulfan II	107	105	P/P	70 - 130
1833407	Endosulfan Sulfate	119	117	P/P	70 - 130
1833407	Endrin	112	108	P/P	81 - 147
1833407	Endrin Aldehyde	104	101	P/P	70 - 130
1833407	Gamma-BHC	92.4	86.6	P/P	70 - 130
1833407	Heptachlor	85.7	80.9	P/P	70 - 130
1833407	Heptachlor Epoxide	102	93.8	P/P	70 - 130
1833407	Methoxychlor	122	126	P/P	86 - 145
1834007	Aldrin	84.3		P	70 - 130
1834007	Alpha-BHC	88.9		P	70 - 130
1834007	Beta-BHC	109		P	70 - 130
1834007	DDD-p,p'	104		P	70 - 130
1834007	DDE-p,p'	99.8		P	70 - 130
1834007	DDT-p,p'	129		P	70 - 130
1834007	Delta-BHC	99.3		P	70 - 130
1834007	Dieldrin	99.9		P	70 - 130
1834007	Endosulfan I	103		P	70 - 130
1834007	Endosulfan II	110		P	70 - 130
1834007	Endosulfan Sulfate	118		P	70 - 130
1834007	Endrin	112		P	81 - 147
1834007	Endrin Aldehyde	101		P	70 - 130
1834007	Gamma-BHC	91.4		P	70 - 130
1834007	Heptachlor	79.3		P	70 - 130
1834007	Heptachlor Epoxide	101		P	70 - 130
1834007	Methoxychlor	125		P	86 - 145

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312253

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1833924	Sulfate	97.1		P	90 - 110
1834067	Sulfate	96.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P312256

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1833924	Chloride	100		P	90 - 110
1834067	Chloride	99.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835460	Chloride	101		P	90 - 110
1835461	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312304

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835460	Sulfate	97.1		P	90 - 110
1835461	Sulfate	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834072	Ammonia-N	97.1	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834074	Ammonia-N	105	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1833927	Kjeldahl Nitrogen	95.5	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834192	Kjeldahl Nitrogen	102	89.2	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1833894	NO2NO3-N	98.8	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834071	NO2NO3-N	97.4	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1833893	Total-P	97.4	94.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P312403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834071	Total-P	96.9	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P311762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834256	O-Phosphate-P	104	104	P/P	90 - 110

Reference Method: EPA 8270D

Batch ID: P311949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834108	Acetochlor	99.4	97.8	P/P	77 - 125
1834108	Alachlor	97.0	98.3	P/P	75 - 127
1834108	Ametryn	110	116	P/P	53 - 150
1834108	Atrazine	105	108	P/P	70 - 126
1834108	Atrazine Desethyl	60.2	70.1	P/P	8.0 - 105
1834108	Azinphos Methyl	139	153	P/P	63 - 204
1834108	Bromacil	95.7	100	P/P	43 - 132
1834108	Butylate	40.9	43.3	P/P	7.0 - 87.0
1834108	Chlorpyrifos Ethyl	80.2	97.3	P/P	53 - 111
1834108	Chlorpyrifos Methyl	78.6	86.0	P/P	38 - 117
1834108	Cyanazine	146	201	P/P	18 - 222
1834108	Demeton	80.3	93.7	P/P	10 - 157
1834108	Diazinon	105	101	P/P	73 - 127
1834108	Disulfoton	105	96.5	P/P	43 - 141
1834108	EPTC	36.9	36.9	P/P	11 - 86.0
1834108	Ethion	118	122	P/P	68 - 130
1834108	Ethoprop	90.1	92.7	P/P	60 - 108
1834108	Fenamiphos	103	111	P/P	56 - 139
1834108	Fipronil	96.8	108	P/P	29 - 143
1834108	Fipronil Sulfide	87.6	98.7	P/P	35 - 129
1834108	Fipronil Sulfone	89.7	103	P/P	16 - 146
1834108	Fonofos	88.5	106	P/P	59 - 112
1834108	Hexazinone	110	112	P/P	68 - 145
1834108	Malathion	110	120	P/P	69 - 131
1834108	Metalaxyl	101	96.9	P/P	67 - 119
1834108	Metolachlor	105	101	P/P	77 - 124
1834108	Metribuzin	160	181	F/F	63 - 134
1834108	Mevinphos	85.2	74.8	P/P	40 - 127
1834108	Molinate	61.6	66.9	P/P	27 - 98.0
1834108	Norflurazon	106	108	P/P	39 - 141
1834108	Parathion Ethyl	99.0	99.8	P/P	74 - 113
1834108	Parathion Methyl	90.1	94.6	P/P	61 - 133
1834108	Pendimethalin	89.5	83.2	P/P	26 - 179
1834108	Phorate	81.0	98.8	P/P	44 - 126
1834108	Prometon	107	88.6	P/P	43 - 147
1834108	Prometryn	108	114	P/P	68 - 126
1834108	Simazine	116	114	P/P	47 - 156
1834108	Terbufos	91.2	101	P/P	53 - 125
1834108	Terbutylazine	99.9	102	P/P	76 - 113

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P311485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1832965	Glyphosate	68.8	70.4	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P311563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1832966	Pyraclostrobin	129	112	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P311969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834207	Fluoride	98.4	98.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P312088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834070	Organic Carbon	99.8	99.0	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P311587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834094	2,4,5-T	78.4	73.6	P/P	40 - 140
1834094	2,4-D	97.6	106	P/P	40 - 140
1834094	2,4-DB	48.4	50.4	P/P	40 - 140
1834094	Acifluorfen	124	124	P/P	40 - 140
1834094	Bentazon	119	123	P/P	40 - 140
1834094	Dichlorprop	99.2	106	P/P	40 - 140
1834094	Dinoseb	90.8	102	P/P	40 - 140
1834094	Diuron	53.9	56.3	P/P	40 - 140
1834094	Fenuron	79.6	82.8	P/P	40 - 140
1834094	Imidacloprid	173	180	F/F	40 - 160
1834094	Linuron	65.2	68.8	P/P	40 - 140
1834094	MCPA	88.8	90.4	P/P	40 - 140
1834094	MCPP	106	106	P/P	40 - 140
1834094	Silvex	94.4	96.8	P/P	40 - 140

Reference Method: USGS O-2060-01
Batch ID: P311958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834096	2,4,5-T	98.0	84.8	P/P	40 - 140
1834096	2,4-D	109	102	P/P	40 - 140
1834096	2,4-DB	53.2	53.6	P/P	40 - 140
1834096	Acifluorfen	141	73.6	F/P	40 - 140
1834096	Bentazon	198	176	F/F	40 - 140
1834096	Dichlorprop	121	104	P/P	40 - 140
1834096	Dinoseb	106	76.8	P/P	40 - 140
1834096	Diuron	47.6	46.4	P/P	40 - 140
1834096	Fenuron	54.8	54.4	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P311958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834096	Imidacloprid	172	160	F/P	40 - 160
1834096	Linuron	70.4	61.2	P/P	40 - 140
1834096	MCPA	110	99.6	P/P	40 - 140
1834096	MCPP	132	105	P/P	40 - 140
1834096	Silvex	125	111	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P311628

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833407	Aldrin	6.60	Spike	P	0 - 30
1833407	Alpha-BHC	0.180	Spike	P	0 - 30
1833407	Beta-BHC	9.83	Spike	P	0 - 30
1833407	DDD-p,p'	3.05	Spike	P	0 - 30
1833407	DDE-p,p'	1.03	Spike	P	0 - 30
1833407	DDT-p,p'	4.47	Spike	P	0 - 30
1833407	Delta-BHC	8.28	Spike	P	0 - 30
1833407	Dieldrin	0.925	Spike	P	0 - 30
1833407	Endosulfan I	6.66	Spike	P	0 - 30
1833407	Endosulfan II	0.239	Spike	P	0 - 30
1833407	Endosulfan Sulfate	1.19	Spike	P	0 - 30
1833407	Endrin	1.35	Spike	P	0 - 30
1833407	Endrin Aldehyde	0.251	Spike	P	0 - 30
1833407	Gamma-BHC	4.09	Spike	P	0 - 30
1833407	Heptachlor	3.32	Spike	P	0 - 30
1833407	Heptachlor Epoxide	4.49	Spike	P	0 - 30
1833407	Methoxychlor	5.91	Spike	P	0 - 30
LFB	Aldrin	8.38	LCS	P	0 - 30
LFB	Alpha-BHC	10.3	LCS	P	0 - 30
LFB	Beta-BHC	8.41	LCS	P	0 - 30
LFB	DDD-p,p'	13.2	LCS	P	0 - 30
LFB	DDE-p,p'	9.21	LCS	P	0 - 30
LFB	DDT-p,p'	11.7	LCS	P	0 - 30
LFB	Delta-BHC	9.49	LCS	P	0 - 30
LFB	Dieldrin	9.29	LCS	P	0 - 30
LFB	Endosulfan I	10.6	LCS	P	0 - 30
LFB	Endosulfan II	10.1	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.41	LCS	P	0 - 30
LFB	Endrin	9.02	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.51	LCS	P	0 - 30
LFB	Gamma-BHC	6.68	LCS	P	0 - 30
LFB	Heptachlor	12.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	9.67	LCS	P	0 - 30
LFB	Methoxychlor	6.15	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P311686

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834065	Turbidity	2.33	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833924	Sulfate	0.836	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312256

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833924	Chloride	0.0617	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835460	Chloride	0.107	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312304

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835460	Sulfate	0.711	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834072	Ammonia-N	0.936	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834074	Ammonia-N	4.10	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312211

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833927	Kjeldahl Nitrogen	0.530	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834192	Kjeldahl Nitrogen	8.67	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833894	NO2NO3-N	0.418	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834071	NO2NO3-N	0.781	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833893	Total-P	2.96	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834071	Total-P	0.0581	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P311762

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834256	O-Phosphate-P	0.768	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P311949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834108	Acetochlor	1.62	Spike	P	0 - 30
1834108	Alachlor	1.32	Spike	P	0 - 30
1834108	Ametryn	5.41	Spike	P	0 - 30
1834108	Atrazine	2.76	Spike	P	0 - 30
1834108	Atrazine Desethyl	15.2	Spike	P	0 - 30
1834108	Azinphos Methyl	9.09	Spike	P	0 - 30
1834108	Bromacil	4.43	Spike	P	0 - 30
1834108	Butylate	5.84	Spike	P	0 - 30
1834108	Chlorpyrifos Ethyl	19.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P311949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834108	Chlorpyrifos Methyl	8.95	Spike	P	0 - 30
1834108	Cyanazine	31.2	Spike	F	0 - 30
1834108	Demeton	15.5	Spike	P	0 - 30
1834108	Diazinon	3.89	Spike	P	0 - 30
1834108	Disulfoton	8.04	Spike	P	0 - 30
1834108	EPTC	0.0806	Spike	P	0 - 30
1834108	Ethion	3.45	Spike	P	0 - 30
1834108	Ethoprop	2.81	Spike	P	0 - 30
1834108	Fenamiphos	7.20	Spike	P	0 - 30
1834108	Fipronil	11.2	Spike	P	0 - 30
1834108	Fipronil Sulfide	11.9	Spike	P	0 - 30
1834108	Fipronil Sulfone	14.1	Spike	P	0 - 30
1834108	Fonofos	17.9	Spike	P	0 - 30
1834108	Hexazinone	1.52	Spike	P	0 - 30
1834108	Malathion	8.85	Spike	P	0 - 30
1834108	Metalaxyl	4.46	Spike	P	0 - 30
1834108	Metolachlor	3.14	Spike	P	0 - 30
1834108	Metribuzin	12.4	Spike	P	0 - 30
1834108	Mevinphos	13.0	Spike	P	0 - 30
1834108	Molinate	8.14	Spike	P	0 - 30
1834108	Norflurazon	1.78	Spike	P	0 - 30
1834108	Parathion Ethyl	0.838	Spike	P	0 - 30
1834108	Parathion Methyl	4.81	Spike	P	0 - 30
1834108	Pendimethalin	7.31	Spike	P	0 - 30
1834108	Phorate	19.9	Spike	P	0 - 30
1834108	Prometon	19.3	Spike	P	0 - 30
1834108	Prometryn	5.78	Spike	P	0 - 30
1834108	Simazine	0.957	Spike	P	0 - 30
1834108	Terbufos	10.5	Spike	P	0 - 30
1834108	Terbutylazine	1.98	Spike	P	0 - 30
LFB	Acetochlor	0.368	LCS	P	0 - 30
LFB	Alachlor	1.86	LCS	P	0 - 30
LFB	Ametryn	23.3	LCS	P	0 - 30
LFB	Atrazine	1.65	LCS	P	0 - 30
LFB	Atrazine Desethyl	17.9	LCS	P	0 - 30
LFB	Azinphos Methyl	17.8	LCS	P	0 - 30
LFB	Bromacil	1.21	LCS	P	0 - 30
LFB	Butylate	16.7	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.75	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.80	LCS	P	0 - 30
LFB	Cyanazine	43.4	LCS	F	0 - 30
LFB	Demeton	11.3	LCS	P	0 - 30
LFB	Diazinon	2.03	LCS	P	0 - 30
LFB	Disulfoton	5.30	LCS	P	0 - 30
LFB	EPTC	13.5	LCS	P	0 - 30
LFB	Ethion	0.851	LCS	P	0 - 30
LFB	Ethoprop	3.32	LCS	P	0 - 30
LFB	Fenamiphos	9.98	LCS	P	0 - 30
LFB	Fipronil	3.18	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.81	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.61	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P311949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fonofos	14.5	LCS	P	0 - 30
LFB	Hexazinone	0.823	LCS	P	0 - 30
LFB	Malathion	2.70	LCS	P	0 - 30
LFB	Metaxyl	0.798	LCS	P	0 - 30
LFB	Metolachlor	1.17	LCS	P	0 - 30
LFB	Metribuzin	56.7	LCS	F	0 - 30
LFB	Mevinphos	20.7	LCS	P	0 - 30
LFB	Molinate	3.22	LCS	P	0 - 30
LFB	Norflurazon	3.90	LCS	P	0 - 30
LFB	Parathion Ethyl	5.39	LCS	P	0 - 30
LFB	Parathion Methyl	2.74	LCS	P	0 - 30
LFB	Pendimethalin	3.82	LCS	P	0 - 30
LFB	Phorate	17.4	LCS	P	0 - 30
LFB	Prometon	12.5	LCS	P	0 - 30
LFB	Prometryn	18.8	LCS	P	0 - 30
LFB	Simazine	0.867	LCS	P	0 - 30
LFB	Terbufos	6.90	LCS	P	0 - 30
LFB	Terbutylazine	6.44	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P311485

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1832965	Glyphosate	2.30	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P311563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1832966	Pyraclostrobin	14.0	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P311913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834069	Color (true)	1.03	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P311965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834207	Total Alkalinity	0.0664	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P312651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1833924	TDS	2.64	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P312652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834069	TDS	1.39	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P312181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834069	TSS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P311969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834207	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P312088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834070	Organic Carbon	0.652	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P311587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834094	2,4,5-T	6.32	Spike	P	0 - 30
1834094	2,4-D	6.15	Spike	P	0 - 30
1834094	2,4-DB	4.05	Spike	P	0 - 30
1834094	Acifluorfen	0.0	Spike	P	0 - 30
1834094	Bentazon	3.31	Spike	P	0 - 30
1834094	Dichlorprop	6.63	Spike	P	0 - 30
1834094	Dinoseb	12.0	Spike	P	0 - 30
1834094	Diuron	3.33	Spike	P	0 - 30
1834094	Fenuron	3.94	Spike	P	0 - 30
1834094	Imidacloprid	3.47	Spike	P	0 - 30
1834094	Linuron	5.37	Spike	P	0 - 30
1834094	MCPA	1.79	Spike	P	0 - 30
1834094	MCPP	0.378	Spike	P	0 - 30
1834094	Silvex	2.51	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P311958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834096	2,4,5-T	14.4	Spike	P	0 - 30
1834096	2,4-D	7.21	Spike	P	0 - 30
1834096	2,4-DB	0.749	Spike	P	0 - 30
1834096	Acifluorfen	62.9	Spike	F	0 - 30
1834096	Bentazon	11.7	Spike	P	0 - 30
1834096	Dichlorprop	15.7	Spike	P	0 - 30
1834096	Dinoseb	31.9	Spike	F	0 - 30
1834096	Diuron	2.55	Spike	P	0 - 30
1834096	Fenuron	0.733	Spike	P	0 - 30
1834096	Imidacloprid	7.00	Spike	P	0 - 30
1834096	Linuron	14.0	Spike	P	0 - 30
1834096	MCPA	10.3	Spike	P	0 - 30
1834096	MCPP	22.6	Spike	P	0 - 30
1834096	Silvex	11.8	Spike	P	0 - 30

* 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: 1834094
Field Sample ID: G1WA0026_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	127	P	50 - 150
USGS O-2060-01	2,4-D-d3	101	P	40 - 150
USGS O-2060-01	Diuron-d6	65.8	P	40 - 150

Lab Sample ID: 1834095
Field Sample ID: G1WA0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	129	P	50 - 150
USGS O-2060-01	2,4-D-d3	125	P	40 - 150
USGS O-2060-01	Diuron-d6	51.8	P	40 - 150

Lab Sample ID: 1834096
Field Sample ID: G2WA0004_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	140	P	50 - 150
USGS O-2060-01	2,4-D-d3	106	P	40 - 150
USGS O-2060-01	Diuron-d6	50.0	P	40 - 150

Lab Sample ID: 1834097
Field Sample ID: G1WA0045_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	95.6	P	50 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1834097

Field Sample ID: G1WA0045_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	98.8	P	40 - 150
USGS O-2060-01	Diuron-d6	60.0	P	40 - 150

Lab Sample ID: 1834102

Field Sample ID: G1WA0026_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	72.6	P	41 - 134

Lab Sample ID: 1834103

Field Sample ID: G1WA0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	54.3	P	41 - 134

Lab Sample ID: 1834104

Field Sample ID: G2WA0004_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	65.9	P	41 - 134

Lab Sample ID: 1834105

Field Sample ID: G1WA0045_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	63.8	P	41 - 134

Lab Sample ID: 1834106

Field Sample ID: G1WA0026_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	106	P	65 - 132
EPA 8270D	Simazine-d10	95.5	P	72 - 128

Lab Sample ID: 1834107

Field Sample ID: G1WA0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	106	P	65 - 132
EPA 8270D	Simazine-d10	94.8	P	72 - 128

Lab Sample ID: 1834108

Field Sample ID: G2WA0004_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	103	P	65 - 132
EPA 8270D	Simazine-d10	94.9	P	72 - 128

Quality Assurance Report Surrogates

Lab Sample ID: 1834109

Field Sample ID: G1WA0045_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	102	P	65 - 132
EPA 8270D	Simazine-d10	100	P	72 - 128

Lab Sample ID: 1834140

Field Sample ID: G2WA0004_09222016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	145	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A71781

Included Lab Sample IDs: 1834065, 1834066, 1834067, 1834068, 1834069

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A71809

Included Lab Sample IDs: 1834075, 1834076, 1834077, 1834078, 1834079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A71836

Included Lab Sample IDs: 1834094, 1834095, 1834096, 1834097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	144	156	P/P	70 - 160

Reference Method: EPA 8321B

Run ID: A71853

Included Lab Sample IDs: 1834140

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	91.2	92.0	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A71853

Included Lab Sample IDs: 1834094, 1834095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	80.4	83.6	P/P	60 - 150
Diuron	83.6	73.2	P/P	60 - 150
Fenuron	88.0	92.4	P/P	60 - 150
Fenuron	92.4	96.8	P/P	60 - 150
Imidacloprid	81.2	85.6	P/P	60 - 150
Imidacloprid	85.6	80.8	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A71853

Included Lab Sample IDs: 1834094, 1834095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	92.8	94.4	P/P	60 - 150
Linuron	97.6	92.8	P/P	60 - 150

Reference Method: SM 2120 B

Run ID: A71860

Included Lab Sample IDs: 1834065, 1834066, 1834067, 1834068, 1834069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	98.2	P/P	85 - 115

Reference Method: SM 2320 B-97

Run ID: A71875

Included Lab Sample IDs: 1834065, 1834066, 1834067, 1834068, 1834069

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

Reference Method: SM 4500 F-C-97

Run ID: A71875

Included Lab Sample IDs: 1834065, 1834066, 1834067, 1834068, 1834069

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A71882

Included Lab Sample IDs: 1834065, 1834066, 1834067, 1834068, 1834069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	103	P/P	90 - 110
Chloride	103	99.9	P/P	90 - 110
Chloride	98.0	98.6	P/P	90 - 110
Chloride	98.6	98.4	P/P	90 - 110
Sulfate	102	98.7	P/P	90 - 110
Sulfate	97.4	98.3	P/P	90 - 110
Sulfate	98.3	96.7	P/P	90 - 110
Sulfate	98.7	102	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A71899

Included Lab Sample IDs: 1834094, 1834095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	87.4	83.2	P/P	50 - 150
2,4,5-T	90.6	87.4	P/P	50 - 150
2,4-D	91.6	92.0	P/P	50 - 150
2,4-D	92.0	94.6	P/P	50 - 150
2,4-DB	77.8	87.0	P/P	50 - 150
2,4-DB	87.0	129	P/P	50 - 150
Acifluorfen	107	120	P/P	50 - 150
Acifluorfen	98.8	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A71899

Included Lab Sample IDs: 1834094, 1834095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	101	93.2	P/P	50 - 150
Bentazon	93.2	99.2	P/P	50 - 150
Dichlorprop	83.6	83.2	P/P	50 - 150
Dichlorprop	87.4	83.6	P/P	50 - 150
Dinoseb	112	91.4	P/P	50 - 150
Dinoseb	91.4	89.6	P/P	50 - 150
MCPA	91.0	96.0	P/P	50 - 150
MCPA	93.4	91.0	P/P	50 - 150
MCPP	87.4	89.4	P/P	50 - 150
MCPP	91.4	87.4	P/P	50 - 150
Silvex	84.2	88.6	P/P	50 - 150
Silvex	88.6	79.8	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A71905

Included Lab Sample IDs: 1834070, 1834071, 1834072, 1834073, 1834074

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

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Run ID: A71917

Included Lab Sample IDs: 1834102, 1834103, 1834104, 1834105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.1	101	P/P	85 - 115
Alpha-BHC	95.7	103	P/P	85 - 115
Beta-BHC	98.2	109	P/P	85 - 115
Carbophenothion	140*	143*	F/F	90 - 110
Chlorothalonil	94.9	100	P/P	90 - 110
Cypermethrin	108	112	P/P	85 - 115
DDD-p,p'	94.4	114	P/P	85 - 115
DDE-p,p'	92.1	109	P/P	85 - 115
DDT-p,p'	91.9	120*	P/F	85 - 115
Delta-BHC	94.7	108	P/P	85 - 115
Dicofol	83.6*	89.1*	F/F	90 - 110
Dieldrin	94.3	104	P/P	85 - 115
Endosulfan I	95.6	104	P/P	85 - 115
Endosulfan II	94.5	108	P/P	85 - 115
Endosulfan Sulfate	94.8	115	P/P	85 - 115
Endrin	96.1	111	P/P	85 - 115
Endrin Aldehyde	94.7	112	P/P	85 - 115
Gamma-BHC	96.1	105	P/P	85 - 115
Heptachlor	100	109	P/P	85 - 115
Heptachlor Epoxide	96.2	103	P/P	85 - 115
Methoxychlor	94.1	124*	P/F	90 - 110
Mirex	97.0	99.3	P/P	90 - 110
Permethrin	99.0	103	P/P	90 - 110
Trifluralin	96.3	99.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A71919

Included Lab Sample IDs: 1834070, 1834071, 1834072, 1834073, 1834074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A71928

Included Lab Sample IDs: 1834096, 1834097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	91.2	88.8	P/P	60 - 150
Fenuron	98.8	104	P/P	60 - 150
Imidacloprid	100	100	P/P	60 - 150
Linuron	85.2	90.8	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A71934

Included Lab Sample IDs: 1834096, 1834097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	96.2	91.0	P/P	50 - 150
2,4-D	84.2	90.2	P/P	50 - 150
2,4-DB	75.0	73.6	P/P	50 - 150
Acifluorfen	111	134	P/P	50 - 150
Bentazon	93.8	117	P/P	50 - 150
Dichlorprop	104	119	P/P	50 - 150
Dinoseb	108	89.6	P/P	50 - 150
MCPA	97.0	103	P/P	50 - 150
MCPP	94.6	101	P/P	50 - 150
Silvex	81.6	87.4	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A71971

Included Lab Sample IDs: 1834070, 1834071, 1834072, 1834073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A71989

Included Lab Sample IDs: 1834070, 1834071, 1834072, 1834073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	92.8	93.8	P/P	90 - 110
Ammonia-N	97.2	98.3	P/P	90 - 110
Ammonia-N	98.3	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A72030

Included Lab Sample IDs: 1834070, 1834071, 1834072, 1834074

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A72030

Included Lab Sample IDs: 1834070, 1834071, 1834072, 1834074

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A72037

Included Lab Sample IDs: 1834073

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A72047

Included Lab Sample IDs: 1834074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	96.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A72057

Included Lab Sample IDs: 1834074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.3	97.5	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A72063

Included Lab Sample IDs: 1834106, 1834107, 1834108, 1834109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	93.7		P	80 - 120
Alachlor	92.6		P	80 - 120
Ametryn	98.7		P	80 - 120
Atrazine	90.0		P	80 - 120
Atrazine Desethyl	91.2		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	97.5		P	80 - 120
Butylate	102		P	80 - 120
Chlorpyrifos Ethyl	98.9		P	80 - 120
Chlorpyrifos Methyl	98.0		P	80 - 120
Cyanazine	100		P	80 - 120
Demeton	106		P	80 - 120
Diazinon	90.9		P	80 - 120
Disulfoton	96.0		P	80 - 120
EPTC	94.5		P	80 - 120
Ethion	99.7		P	80 - 120
Ethoprop	99.3		P	80 - 120
Fenamiphos	97.6		P	80 - 120
Fipronil	90.4		P	80 - 120
Fipronil Sulfide	93.8		P	80 - 120
Fipronil Sulfone	94.2		P	80 - 120
Fonofos	93.5		P	80 - 120
Hexazinone	99.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A72063

Included Lab Sample IDs: 1834106, 1834107, 1834108, 1834109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Malathion	95.0		P	80 - 120
Metalaxyl	99.7		P	80 - 120
Metolachlor	97.8		P	80 - 120
Metribuzin	92.6		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	98.8		P	80 - 120
Norflurazon	94.1		P	80 - 120
Parathion Ethyl	103		P	80 - 120
Parathion Methyl	94.6		P	80 - 120
Pendimethalin	90.1		P	80 - 120
Phorate	98.3		P	80 - 120
Prometon	91.7		P	80 - 120
Prometryn	91.9		P	80 - 120
Simazine	100		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbutylazine	96.2		P	80 - 120

Reference Method: EPA 8270D

Run ID: A72065

Included Lab Sample IDs: 1834109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Simazine	92.5		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				Precision SMP	MS
				LCS					
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	83.5	90.8	84.3	86.4	78.9	8.38		6.60
	Alpha-BHC	82.3	91.2	88.9	85.8	83.8	10.3		0.180
	Beta-BHC	104	113	109	113	100	8.41		9.83
	DDD-p,p'	99.1	113	104	104	104	13.2		3.05
	DDE-p,p'	98.2	108	99.8	106	102	9.21		1.03
	DDT-p,p'	109	122	123	129	121	11.7		4.47
	Delta-BHC	98.8	109	99.3	111	99.4	9.49		8.28
	Dieldrin	95.9	105	99.9	98.4	95.0	9.29		0.925
	Endosulfan I	98.4	109	103	108	98.1	10.6		6.66
	Endosulfan II	103	114	110	107	105	10.1		0.239
	Endosulfan Sulfate	124	126	118	119	117	1.41		1.19
	Endrin	107	117	108	112	112	9.02		1.35
	Endrin Aldehyde	107	112	101	104	101	4.51		0.251
	Gamma-BHC	89.3	95.4	91.4	92.4	86.6	6.68		4.09
	Heptachlor	74.9	84.6	79.3	85.7	80.9	12.2		3.32
	Heptachlor Epoxide	94.7	104	101	102	93.8	9.67		4.49

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Methoxychlor	124	132	125	122	126	6.15		5.91
EPA 180.1 Rev. 2.0	Turbidity							2.33	
EPA 300.0 Rev. 2.1	Chloride	99.1		100	99.9			0.0617	
	Chloride	101		101	103			0.107	
	Sulfate	96.7		97.1	96.2			0.836	
	Sulfate	99.0		97.1	98.2			0.711	
EPA 350.1 Rev. 2.0	Ammonia-N	100		97.1	98.1				0.936
	Ammonia-N	101		105	99.7				4.10
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		95.5	96.4				0.530
	Kjeldahl Nitrogen	98.4		102	89.2				8.67
EPA 353.2 Rev. 2.0	NO2NO3-N	102		98.8	98.4				0.418
	NO2NO3-N	102		97.4	96.4				0.781
EPA 365.1 Rev. 2.0	Total-P	96.2		97.4	94.4				2.96
	Total-P	101		96.9	97.0				0.0581
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		104	104				0.768
EPA 8270D	Acetochlor	94.5	94.2	99.4	97.8		0.368		1.62
	Alachlor	96.2	94.4	97.0	98.3		1.86		1.32
	Ametryn	114	89.9	110	116		23.3		5.41
	Atrazine	102	103	105	108		1.65		2.76
	Atrazine Desethyl	73.4	61.3	60.2	70.1		17.9		15.2
	Azinphos Methyl	132	111	139	153		17.8		9.09
	Bromacil	94.5	95.7	95.7	100		1.21		4.43
	Butylate	50.3	59.5	40.9	43.3		16.7		5.84
	Chlorpyrifos Ethyl	93.4	84.8	80.2	97.3		9.75		19.3
	Chlorpyrifos Methyl	83.2	80.9	78.6	86.0		2.80		8.95
	Cyanazine	155	99.7	146	201		43.4		31.2
	Demeton	92.2	82.3	80.3	93.7		11.3		15.5
	Diazinon	99.8	97.8	105	101		2.03		3.89
	Disulfoton	92.6	97.7	105	96.5		5.30		8.04
	EPTC	51.4	58.9	36.9	36.9		13.5		0.0806
	Ethion	110	111	118	122		0.851		3.45
	Ethoprop	84.5	81.7	90.1	92.7		3.32		2.81
	Fenamiphos	106	95.9	103	111		9.98		7.20
	Fipronil	96.0	99.1	96.8	108		3.18		11.2
	Fipronil Sulfide	94.0	96.7	87.6	98.7		2.81		11.9
	Fipronil Sulfone	96.5	89.5	89.7	103		7.61		14.1
	Fonofos	99.4	85.9	88.5	106		14.5		17.9
	Hexazinone	111	112	110	112		0.823		1.52
	Malathion	110	107	110	120		2.70		8.85
	Metalaxyl	97.2	96.5	101	96.9		0.798		4.46
	Metolachlor	97.5	98.6	105	101		1.17		3.14
	Metribuzin	164	91.8	160	181		56.7		12.4
	Mevinphos	76.8	62.4	85.2	74.8		20.7		13.0
	Molinate	68.8	66.7	61.6	66.9		3.22		8.14
	Norflurazon	102	98.2	106	108		3.90		1.78
	Parathion Ethyl	95.1	100	99.0	99.8		5.39		0.838
	Parathion Methyl	86.5	88.9	90.1	94.6		2.74		4.81
	Pendimethalin	88.6	85.3	89.5	83.2		3.82		7.31
	Phorate	97.7	82.1	81.0	98.8		17.4		19.9
	Prometon	110	97.2	107	88.6		12.5		19.3
	Prometryn	118	98.1	108	114		18.8		5.78
	Simazine	108	109	116	114		0.867		0.957
	Terbufos	89.5	95.9	91.2	101		6.90		10.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Terbutylazine	101	94.4	99.9	102	6.44	1.98
EPA 8321B	Glyphosate	82.8		68.8	70.4		2.30
	Pyraclostrobin	108		129	112		14.0
SM 2120 B	Color (true)					1.03	
SM 2320 B-97	Total Alkalinity	103				0.0664	
SM 2540 C-97	TDS					2.64	
	TDS					1.39	
SM 2540 D-97	TSS					0.0	
SM 4500 F-C-97	Fluoride	97.9		98.4	98.4		0.0
SM 5310 B-00	Organic Carbon	99.3		99.8	99.0		0.652
USGS O-2060-01	2,4,5-T	75.6		78.4	73.6		6.32
	2,4,5-T	78.8		98.0	84.8		14.4
	2,4-D	86.8		97.6	106		6.15
	2,4-D	86.4		109	102		7.21
	2,4-DB	105		48.4	50.4		4.05
	2,4-DB	46.8		53.2	53.6		0.749
	Acifluorfen	49.2		124	124		0.0
	Acifluorfen	116		141	73.6		62.9
	Bentazon	97.2		119	123		3.31
	Bentazon	114		198	176		11.7
	Dichlorprop	86.4		99.2	106		6.63
	Dichlorprop	94.4		121	104		15.7
	Dinoseb	74.8		90.8	102		12.0
	Dinoseb	84.8		106	76.8		31.9
	Diuron	76.4		53.9	56.3		3.33
	Diuron	82.4		47.6	46.4		2.55
	Fenuron	106		79.6	82.8		3.94
	Fenuron	103		54.8	54.4		0.733
	Imidacloprid	94.0		173	180		3.47
	Imidacloprid	108		172	160		7.00
	Linuron	91.6		65.2	68.8		5.37
	Linuron	89.6		70.4	61.2		14.0
	MCPA	83.2		88.8	90.4		1.79
	MCPA	91.6		110	99.6		10.3
	MCPP	82.0		106	106		0.378
	MCPP	95.2		132	105		22.6
	Silvex	78.0		94.4	96.8		2.51
	Silvex	92.4		125	111		11.8

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617) / E31780	Organochlorine pesticides (low levels) in water matrices by GC/ECD.	1834102, 1834103, 1834104, 1834105
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1834065, 1834066, 1834067, 1834068, 1834069
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1834065, 1834066, 1834067, 1834068, 1834069
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1834065, 1834066, 1834067, 1834068, 1834069
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1834070, 1834071, 1834072, 1834073, 1834074

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1834070, 1834071, 1834072, 1834073, 1834074
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1834070, 1834071, 1834072, 1834073, 1834074
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1834070, 1834071, 1834072, 1834073, 1834074
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1834075, 1834076, 1834077, 1834078, 1834079
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1834106, 1834107, 1834108, 1834109
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1834094, 1834095, 1834096, 1834097
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1834140
SM 2120 B / E31780	True Color measured at 450 nm	1834065, 1834066, 1834067, 1834068, 1834069
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1834065, 1834066, 1834067, 1834068, 1834069
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1834065, 1834066, 1834067, 1834068, 1834069
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1834065, 1834066, 1834067, 1834068, 1834069
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1834065, 1834066, 1834067, 1834068, 1834069
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1834070, 1834071, 1834072, 1834073, 1834074
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1834094, 1834095, 1834096, 1834097
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1834094, 1834095, 1834096, 1834097

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617)	09/22/2016	09/23/2016	Fe-Val Siddell	09/28/2016	Vandana T. Nagar	1834102, 1834103, 1834104, 1834105
EPA 180.1 Rev. 2.0	09/22/2016			09/22/2016 16:37	Sima Feizi	1834065, 1834066, 1834067, 1834068, 1834069
EPA 300.0 Rev. 2.1	09/22/2016			10/01/2016	Ping Hua	1834067, 1834069
	09/22/2016			10/02/2016	Ping Hua	1834065, 1834066, 1834068
EPA 350.1 Rev. 2.0	09/22/2016			10/03/2016	Sofia Elnemr	1834070, 1834071, 1834072, 1834073
	09/22/2016			10/05/2016	Sofia Elnemr	1834074
EPA 351.2 Rev. 2.0	09/22/2016	09/30/2016	Adrian Shelby	10/03/2016	Virginia P. Brown	1834070, 1834071, 1834072, 1834073
	09/22/2016	09/30/2016	Adrian Shelby	10/06/2016	Christopher Armour	1834074
EPA 353.2 Rev. 2.0	09/22/2016			09/29/2016	Beverly Y. Sanders	1834070, 1834071, 1834072, 1834073, 1834074
EPA 365.1 Rev. 2.0	09/22/2016	10/04/2016	Vijayalakshmi Reddy	10/05/2016	Lipi Saha	1834070, 1834071, 1834072, 1834073, 1834074
EPA 365.1 Rev. 2.0 dissolved	09/22/2016			09/23/2016 16:39	Julia Storbeck	1834079
	09/22/2016			09/23/2016 16:40	Julia Storbeck	1834075, 1834076
	09/22/2016			09/23/2016 16:41	Julia Storbeck	1834077
	09/22/2016			09/23/2016 16:42	Julia Storbeck	1834078
EPA 8270D	09/22/2016	09/29/2016	Fe-Val Siddell	10/04/2016	Irina Carbone	1834106, 1834107, 1834108, 1834109
	09/22/2016	09/29/2016	Fe-Val Siddell	10/05/2016	Irina Carbone	1834109
EPA 8321B	09/22/2016	09/23/2016	Hoor Shaik	09/27/2016	Juyoung Kim	1834140
	09/22/2016	09/23/2016	Juyoung Kim	09/26/2016	Juyoung Kim	1834094, 1834095, 1834096, 1834097
SM 2120 B	09/22/2016			09/22/2016 19:12	Julie Michelle Frank	1834065
	09/22/2016			09/22/2016 19:13	Julie Michelle Frank	1834066
	09/22/2016			09/22/2016 19:14	Julie Michelle Frank	1834067
	09/22/2016			09/22/2016 19:15	Julie Michelle Frank	1834068
	09/22/2016			09/22/2016 19:16	Julie Michelle Frank	1834069
SM 2320 B-97	09/22/2016			09/27/2016	Dale L. Simmons	1834065, 1834066, 1834067, 1834068, 1834069
SM 2540 C-97	09/22/2016			09/26/2016	Sima Feizi	1834065, 1834066, 1834067, 1834068, 1834069
SM 2540 D-97	09/22/2016			09/26/2016	Sima Feizi	1834065, 1834066, 1834067, 1834068, 1834069
SM 4500 F-C-97	09/22/2016			09/27/2016	Dale L. Simmons	1834065, 1834066, 1834067, 1834068, 1834069
SM 5310 B-00	09/22/2016			09/27/2016	Julie Michelle Frank	1834070, 1834071, 1834072, 1834073, 1834074
USGS O-2060-01	09/22/2016	09/23/2016	Hoor Shaik	09/27/2016	Juyoung Kim	1834094, 1834095
	09/22/2016	09/23/2016	Hoor Shaik	09/28/2016	Juyoung Kim	1834094, 1834095
	09/22/2016	09/29/2016	Hoor Shaik	09/29/2016	Juyoung Kim	1834096, 1834097
	09/22/2016	09/29/2016	Hoor Shaik	09/30/2016	Juyoung Kim	1834096, 1834097