

Chemical Analysis Report

NW-DIST-2016-05-12-01

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

Event Description: **WBID 24AA 260 10G 35 11A 635**

Request ID: **RQ-2016-05-09-25**

Customer: **NW-DIST**

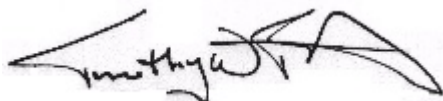
Project ID: **SMP**

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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 08-JUN-2016 14:22

A handwritten signature in black ink, appearing to read 'Timothy Fitzpatrick', with a stylized flourish at the end.

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: THOMPSON BAYOU @ GREENBRIAR RD.

Collection Date/Time: 05/11/2016 10:20

Field ID: G4NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798251	EPA 180.1 Rev. 2.0	Turbidity	2.9	A	NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	7.5		mg Cl/L	P304781	
		Sulfate	2.7		mg SO4/L	P304784	
	SM 2120 B	Color (true)	23		PCU	P304257	
	SM 2320 B-97	Total Alkalinity	10		mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	35		mg/L	P304881	
	SM 2540 D-97	TSS	2	U	mg/L	P304863	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P304907	
1798261	EPA 353.2 Rev. 2.0	NO2NO3-N	0.68		mg N/L	P304654	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	1.9		mg C/L	P304981	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P304183	
	dissolved						

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: THOMPSON BAYOU @ GREENBRIAR RD.

Collection Date/Time: 05/11/2016 10:20

Field ID: G4NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798318	EPA 8321B	Glyphosate**	10	U	ug/L	P304182	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P304181	
		Diuron	0.0020	U	ug/L	P304181	
		2,4-DB	0.0020	U	ug/L	P304181	
		Fenuron	0.0080	U	ug/L	P304181	
		2,4,5-T	0.0020	U	ug/L	P304181	
		Acifluorfen	0.0020	U	ug/L	P304181	RPD
		Imidacloprid	0.046		ug/L	P304181	MS
		Bentazon	0.041		ug/L	P304181	MS
		Linuron	0.0040	U	ug/L	P304181	
		Dichlorprop	0.0020	U	ug/L	P304181	
		Dinoseb	0.020	U	ug/L	P304181	
		MCPA	0.0040	U	ug/L	P304181	
		Acetaminophen**	0.0040	U	ug/L	P303923	
		MCPD	0.0040	U	ug/L	P304181	
		Carbamazepine**	0.0019		ug/L	P304181	
		Silvex	0.0020	U	ug/L	P304181	
		Primidone**	0.0080	U	ug/L	P304181	
		Fluridone**	4.0E-04	U	ug/L	P304181	
1798321	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P304490	
1798337	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0021	U	ug/L	P304213	
		Alpha-BHC	0.0021	U	ug/L	P304213	

Field ID: G4NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798337	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Beta-BHC	0.0021	U	ug/L	P304213	
		Delta-BHC	0.0021	U	ug/L	P304213	
		Gamma-BHC	0.0021	U	ug/L	P304213	
		Carbophenothion	0.0063	U	ug/L	P304213	
		Chlorothalonil	0.0083	UJ	ug/L	P304213	CCV
		Cypermethrin	0.013	U	ug/L	P304213	
		DDD-p,p'	0.0042	U	ug/L	P304213	
		DDE-p,p'	0.0042	U	ug/L	P304213	
		DDT-p,p'	0.0042	U	ug/L	P304213	
		Dicofol	0.025	U	ug/L	P304213	
		Dieldrin	0.0021	U	ug/L	P304213	
		Endosulfan I	0.0021	U	ug/L	P304213	
		Endosulfan II	0.0021	U	ug/L	P304213	
		Endosulfan Sulfate	0.0042	U	ug/L	P304213	
		Endrin	0.0042	U	ug/L	P304213	
		Endrin Aldehyde	0.0042	U	ug/L	P304213	
		Heptachlor	0.0021	U	ug/L	P304213	
		Heptachlor Epoxide	0.0021	U	ug/L	P304213	
		Methoxychlor	0.010	U	ug/L	P304213	
		Mirex	0.0042	U	ug/L	P304213	
		Permethrin	0.010	U	ug/L	P304213	
1798340	EPA 8270D	Ametryn	0.34	I	ng/L	P304420	
		Atrazine	24		ng/L	P304420	
		Chlorpyrifos Ethyl	0.10	U	ng/L	P304420	
		Chlorpyrifos Methyl	0.10	U	ng/L	P304420	
		Disulfoton	0.34	U	ng/L	P304420	
		Ethion	0.15	U	ng/L	P304420	
		Ethoprop	0.10	U	ng/L	P304420	
		Hexazinone	0.52	U	ng/L	P304420	
		Malathion	0.36	U	ng/L	P304420	
		Metribuzin	0.21	U	ng/L	P304420	MS
		Mevinphos	0.52	U	ng/L	P304420	
		Norflurazon	0.52	U	ng/L	P304420	
		Phorate	0.26	U	ng/L	P304420	
		Prometryn	0.21	U	ng/L	P304420	
		Simazine	2.0	I	ng/L	P304420	
		Atrazine Desethyl	6.3	J	ng/L	P304420	RPD
		Prometon	0.93	U	ng/L	P304420	
		Fipronil	1.1		ng/L	P304420	
		Molinate	0.31	U	ng/L	P304420	
		Pendimethalin	1.5	U	ng/L	P304420	
		Terbufos	0.10	U	ng/L	P304420	
		EPTC	1.3	U	ng/L	P304420	
		Terbuthylazine	0.44	U	ng/L	P304420	

Field ID: G4NW0240

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798340	EPA 8270D	Bromacil	4.1		ng/L	P304420	
		Fipronil Sulfide	0.45	I	ng/L	P304420	
		Fipronil Sulfone	4.0		ng/L	P304420	
		Alachlor	0.26	U	ng/L	P304420	
		Azinphos Methyl	2.3	U	ng/L	P304420	
		Butylate	0.41	U	ng/L	P304420	
		Demeton	1.0	U	ng/L	P304420	MS
		Diazinon	0.13	U	ng/L	P304420	
		Fenamiphos	0.26	UJ	ng/L	P304420	LCS, MS, RPD
		Fonofos	0.21	U	ng/L	P304420	
		Metalaxyl	0.21	IJ	ng/L	P304420	LCS
		Metolachlor	0.26	U	ng/L	P304420	
		Acetochlor	0.26	U	ng/L	P304420	
		Cyanazine	0.52	U	ng/L	P304420	
		Parathion Ethyl	0.26	U	ng/L	P304420	
		Parathion Methyl	0.26	UJ	ng/L	P304420	LCS

Ref. Method and Comment:

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

DEP SOP: GC-011-5 (based on EPA 608 and 617): Matrix spikes recoveries for Heptachlor Epoxide and Dieldrin not assessed in duplicate matrix spikes due to high content of these analytes in the spiked sample. Refer to the narrative for an explanation of QC Codes.

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

Sample Location: CLEAR CREEK ABV CR 749

Collection Date/Time: 05/11/2016 10:50

Field ID: G4NW0169

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798252	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	7.6		mg Cl/L	P304781	
		Sulfate	8.6		mg SO4/L	P304784	
	SM 2120 B	Color (true)	43		PCU	P304257	
	SM 2320 B-97	Total Alkalinity	40		mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	73		mg/L	P304881	
	SM 2540 D-97	TSS	10	I	mg/L	P304863	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798262	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.066		mg N/L	P304654	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	3.4		mg C/L	P304981	
1798272	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304183	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: CLEAR CREEK DR @ TECUMSEH TRAIL

Collection Date/Time: 05/11/2016 11:15

Field ID: G4NW0358

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G4NW0358

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798253	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	7.9		mg Cl/L	P304781	
		Sulfate	4.3		mg SO4/L	P304784	
	SM 2120 B	Color (true)	31		PCU	P304257	
	SM 2320 B-97	Total Alkalinity	18		mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	48		mg/L	P304881	
	SM 2540 D-97	TSS	2	U	mg/L	P304863	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798263	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P304654	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	2.7		mg C/L	P304981	
1798273	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304183	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: CLEAR CREEK DR. CR 749 NORTH

Collection Date/Time: 05/11/2016 11:30

Field ID: G4NW0359

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798254	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P304795	
		Sulfate	2.3		mg SO4/L	P304798	
	SM 2120 B	Color (true)	58		PCU	P304257	
	SM 2320 B-97	Total Alkalinity	15		mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	51		mg/L	P304881	
	SM 2540 D-97	TSS	2	U	mg/L	P304863	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798264	EPA 350.1 Rev. 2.0	Ammonia-N	0.014	Y	mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	Y	mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	IY	mg N/L	P304655	
	EPA 365.1 Rev. 2.0	Total-P	0.018	Y	mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	5.8	Y	mg C/L	P304981	
1798274	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304183	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 353.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

SM 5310 B-00: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

Sample Location: SEVENMILE CREEK UPSTREAM OF ALDERBROOK BLVD.

Collection Date/Time: 05/11/2016 12:10

Field ID: G4NW0345

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G4NW0345

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798255	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	6.5		mg Cl/L	P304795	
		Sulfate	0.80		mg SO4/L	P304798	
	SM 2120 B	Color (true)	7.4		PCU	P304257	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	36		mg/L	P304881	
	SM 2540 D-97	TSS	2	I	mg/L	P304863	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798265	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P304655	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	1.1		mg C/L	P304981	
1798275	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304183	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: SEVENMILE CREEK UPSTREAM OF QUINTETTE ROAD

Collection Date/Time: 05/11/2016 12:25

Field ID: G4NW0344

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798256	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	6.6		mg Cl/L	P304795	
		Sulfate	0.87		mg SO4/L	P304798	
	SM 2120 B	Color (true)	5.4	I	PCU	P304257	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	34		mg/L	P304882	
	SM 2540 D-97	TSS	2	I	mg/L	P304864	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798266	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P304655	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	0.78	I	mg C/L	P304963	
1798276	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304184	

Sample Location: LOCKLAND LAKE CREEK AT SR 87

Collection Date/Time: 05/11/2016 13:00

Field ID: G4NW0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798257	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	5.5		mg Cl/L	P304795	
		Sulfate	1.4		mg SO4/L	P304798	
	SM 2120 B	Color (true)	13		PCU	P304258	
	SM 2320 B-97	Total Alkalinity	10		mg CaCO3/L	P304847	

Field ID: G4NW0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798257	SM 2540 C-97	TDS	30		mg/L	P304882	
	SM 2540 D-97	TSS	2	U	mg/L	P304864	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798267	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P304655	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	1.7		mg C/L	P304963	
1798277	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304184	

Sample Location: CLEAR CREEK UPSTREAM OF PAT BROWN ROAD

Collection Date/Time: 05/11/2016 13:20

Field ID: G4NW0360

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798258	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	3.9		mg Cl/L	P304795	
		Sulfate	0.38	I	mg SO4/L	P304798	
	SM 2120 B	Color (true)	9.4		PCU	P304258	
	SM 2320 B-97	Total Alkalinity	2.6		mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	18	I	mg/L	P304882	
	SM 2540 D-97	TSS	2	I	mg/L	P304864	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798268	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P304551	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.86		mg N/L	P304655	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	0.96	I	mg C/L	P304963	
1798278	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304184	

Sample Location: WEST FORK @ HWY 87

Collection Date/Time: 05/11/2016 14:05

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798259	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	5.8		mg Cl/L	P304795	
		Sulfate	1.2		mg SO4/L	P304798	
	SM 2120 B	Color (true)	25		PCU	P304258	
	SM 2320 B-97	Total Alkalinity	3.1		mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	30		mg/L	P304882	
	SM 2540 D-97	TSS	4	I	mg/L	P304864	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798269	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P304552	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P304655	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798269	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	2.1		mg C/L	P304963	
1798279	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P304184	

Sample Location: WEST FORK @ HWY 87

Collection Date/Time: 05/11/2016 14:05

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798319	EPA 8321B	Glyphosate**	10	U	ug/L	P304182	
	USGS O-2060-01	2,4-D	0.11		ug/L	P304181	
		Diuron	0.0020	U	ug/L	P304181	
		2,4-DB	0.0020	U	ug/L	P304181	
		Fenuron	0.0080	U	ug/L	P304181	
		2,4,5-T	0.0020	U	ug/L	P304181	
		Acifluorfen	0.0020	UJ	ug/L	P304181	RPD
		Imidacloprid	0.0040	UJ	ug/L	P304181	MS
		Bentazon	0.0096	J	ug/L	P304181	MS
		Linuron	0.0040	U	ug/L	P304181	
		Dichlorprop	0.0020	U	ug/L	P304181	
		Dinoseb	0.020	U	ug/L	P304181	
		MCPA	0.0040	U	ug/L	P304181	
		Acetaminophen**	0.0040	U	ug/L	P303923	
		MCPD	0.0040	U	ug/L	P304181	
		Carbamazepine**	4.0E-04	U	ug/L	P304181	
		Silvex	0.0020	U	ug/L	P304181	
		Primidone**	0.0080	U	ug/L	P304181	
		Fluridone**	4.0E-04	U	ug/L	P304181	
1798322	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P304490	
1798338	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0020	U	ug/L	P304213	
		Alpha-BHC	0.0020	U	ug/L	P304213	
		Beta-BHC	0.0020	U	ug/L	P304213	
		Delta-BHC	0.0020	U	ug/L	P304213	
		Gamma-BHC	0.0020	U	ug/L	P304213	
		Carbophenothion	0.0059	U	ug/L	P304213	
		Chlorothalonil	0.0079	UJ	ug/L	P304213	CCV
		Cypermethrin	0.012	U	ug/L	P304213	
		DDD-p,p'	0.0039	U	ug/L	P304213	
		DDE-p,p'	0.0039	U	ug/L	P304213	
		DDT-p,p'	0.0039	U	ug/L	P304213	
		Dicofol	0.024	U	ug/L	P304213	
		Dieldrin	0.0020	U	ug/L	P304213	
		Endosulfan I	0.0020	U	ug/L	P304213	
		Endosulfan II	0.0020	U	ug/L	P304213	
		Endosulfan Sulfate	0.0039	U	ug/L	P304213	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798338	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Endrin	0.0039	U	ug/L	P304213	
		Endrin Aldehyde	0.0039	U	ug/L	P304213	
		Heptachlor	0.0020	U	ug/L	P304213	
		Heptachlor Epoxide	0.0020	U	ug/L	P304213	
		Methoxychlor	0.0099	U	ug/L	P304213	
		Mirex	0.0039	U	ug/L	P304213	
		Permethrin	0.0099	U	ug/L	P304213	
1798341	EPA 8270D	Ametryn	0.33	U	ng/L	P304420	
		Atrazine	0.95	I	ng/L	P304420	
		Chlorpyrifos Ethyl	0.10	U	ng/L	P304420	
		Chlorpyrifos Methyl	0.10	U	ng/L	P304420	
		Disulfoton	0.33	U	ng/L	P304420	
		Ethion	0.15	U	ng/L	P304420	
		Ethoprop	0.10	U	ng/L	P304420	
		Hexazinone	2.8		ng/L	P304420	
		Malathion	0.36	U	ng/L	P304420	
		Metribuzin	0.20	UJ	ng/L	P304420	MS
		Mevinphos	0.51	U	ng/L	P304420	
		Norflurazon	1.4	I	ng/L	P304420	
		Phorate	0.26	U	ng/L	P304420	
		Prometryn	0.20	U	ng/L	P304420	
		Simazine	0.51	U	ng/L	P304420	
		Atrazine Desethyl	1.5	UJ	ng/L	P304420	RPD
		Prometon	0.92	U	ng/L	P304420	
		Fipronil	0.26	U	ng/L	P304420	
		Molinate	0.31	U	ng/L	P304420	
		Pendimethalin	2.0	I	ng/L	P304420	
		Terbufos	0.10	U	ng/L	P304420	
		EPTC	1.3	U	ng/L	P304420	
		Terbuthylazine	0.44	U	ng/L	P304420	
		Bromacil	1.2	I	ng/L	P304420	
		Fipronil Sulfide	0.15	U	ng/L	P304420	
		Fipronil Sulfone	0.15	U	ng/L	P304420	
		Alachlor	1.8		ng/L	P304420	
		Azinphos Methyl	2.3	U	ng/L	P304420	
		Butylate	0.41	U	ng/L	P304420	
		Demeton	1.0	UJ	ng/L	P304420	MS
		Diazinon	0.13	U	ng/L	P304420	
		Fenamiphos	0.26	UJ	ng/L	P304420	LCS, MS, RPD
		Fonofos	0.20	U	ng/L	P304420	
		Metalaxyl	0.20	UJ	ng/L	P304420	LCS
		Metolachlor	12		ng/L	P304420	
		Acetochlor	0.26	U	ng/L	P304420	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798341	EPA 8270D	Cyanazine	0.51	U	ng/L	P304420	
		Parathion Ethyl	0.26	U	ng/L	P304420	
		Parathion Methyl	0.26	UJ	ng/L	P304420	LCS

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): Matrix spikes recoveries for Heptachlor Epoxide and Dieldrin not assessed in duplicate matrix spikes due to high content of these analytes in the spiked sample. Refer to the narrative for an explanation of QC Codes.

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

Sample Location: WEST FORK @ HWY 87

Collection Date/Time: 05/11/2016 14:15

Field ID: FIELDBLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798320	EPA 8321B	Glyphosate**	10	U	ug/L	P304182	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P304181	
		Diuron	0.0020	U	ug/L	P304181	
		2,4-DB	0.0020	U	ug/L	P304181	
		Fenuron	0.0080	U	ug/L	P304181	
		2,4,5-T	0.0020	U	ug/L	P304181	
		Acifluorfen	0.0020	U	ug/L	P304181	RPD
		Imidacloprid	0.0040	U	ug/L	P304181	MS
		Bentazon	0.0020	U	ug/L	P304181	MS
		Linuron	0.0040	U	ug/L	P304181	
		Dichlorprop	0.0020	U	ug/L	P304181	
		Dinoseb	0.020	U	ug/L	P304181	
		MCPA	0.0040	U	ug/L	P304181	
		Acetaminophen**	0.0040	U	ug/L	P303923	
		MCPP	0.0040	U	ug/L	P304181	
		Carbamazepine**	4.0E-04	U	ug/L	P304181	
		Silvex	0.0020	U	ug/L	P304181	
		Primidone**	0.0080	U	ug/L	P304181	
		Fluridone**	4.0E-04	U	ug/L	P304181	
1798323	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P304490	
1798339	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0022	U	ug/L	P304213	
		Alpha-BHC	0.0022	U	ug/L	P304213	
		Beta-BHC	0.0022	U	ug/L	P304213	
		Delta-BHC	0.0022	U	ug/L	P304213	
		Gamma-BHC	0.0022	U	ug/L	P304213	
		Carbophenothion	0.0065	U	ug/L	P304213	
		Chlorothalonil	0.0087	UJ	ug/L	P304213	CCV
		Cypermethrin	0.013	U	ug/L	P304213	
		DDD-p,p'	0.0044	U	ug/L	P304213	
		DDE-p,p'	0.0044	U	ug/L	P304213	
		DDT-p,p'	0.0044	U	ug/L	P304213	
		Dicofol	0.026	U	ug/L	P304213	
		Dieldrin	0.0022	U	ug/L	P304213	

Field ID: FIELDBLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798339	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Endosulfan I	0.0022	U	ug/L	P304213	
		Endosulfan II	0.0022	U	ug/L	P304213	
		Endosulfan Sulfate	0.0044	U	ug/L	P304213	
		Endrin	0.0044	U	ug/L	P304213	
		Endrin Aldehyde	0.0044	U	ug/L	P304213	
		Heptachlor	0.0022	U	ug/L	P304213	
		Heptachlor Epoxide	0.0022	U	ug/L	P304213	
		Methoxychlor	0.011	U	ug/L	P304213	
		Mirex	0.0044	U	ug/L	P304213	
		Permethrin	0.011	U	ug/L	P304213	
1798342	EPA 8270D	Ametryn	0.34	U	ng/L	P304420	
		Atrazine	0.26	U	ng/L	P304420	
		Chlorpyrifos Ethyl	0.10	U	ng/L	P304420	
		Chlorpyrifos Methyl	0.10	U	ng/L	P304420	
		Disulfoton	0.34	U	ng/L	P304420	
		Ethion	0.15	U	ng/L	P304420	
		Ethoprop	0.10	U	ng/L	P304420	
		Hexazinone	0.52	U	ng/L	P304420	
		Malathion	0.36	U	ng/L	P304420	
		Metribuzin	0.21	U	ng/L	P304420	MS
		Mevinphos	0.52	U	ng/L	P304420	
		Norflurazon	0.52	U	ng/L	P304420	
		Phorate	0.26	U	ng/L	P304420	
		Prometryn	0.21	U	ng/L	P304420	
		Simazine	0.52	U	ng/L	P304420	
		Atrazine Desethyl	1.5	UJ	ng/L	P304420	RPD
		Prometon	0.93	U	ng/L	P304420	
		Fipronil	0.26	U	ng/L	P304420	
		Molinate	0.31	U	ng/L	P304420	
		Pendimethalin	1.5	U	ng/L	P304420	
		Terbufos	0.10	U	ng/L	P304420	
		EPTC	1.3	U	ng/L	P304420	
		Terbutylazine	0.44	U	ng/L	P304420	
		Bromacil	0.52	U	ng/L	P304420	
		Fipronil Sulfide	0.15	U	ng/L	P304420	
		Fipronil Sulfone	0.15	U	ng/L	P304420	
		Alachlor	0.26	U	ng/L	P304420	
		Azinphos Methyl	2.3	U	ng/L	P304420	
		Butylate	0.41	U	ng/L	P304420	
		Demeton	1.0	U	ng/L	P304420	MS
		Diazinon	0.13	U	ng/L	P304420	
		Fenamiphos	0.26	UJ	ng/L	P304420	LCS, MS, RPD
		Fonofos	0.21	U	ng/L	P304420	

Field ID: FIELDBLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798342	EPA 8270D	Metalaxyl	0.21	UJ	ng/L	P304420	LCS
		Metolachlor	0.26	U	ng/L	P304420	
		Acetochlor	0.26	U	ng/L	P304420	
		Cyanazine	0.52	U	ng/L	P304420	
		Parathion Ethyl	0.26	U	ng/L	P304420	
		Parathion Methyl	0.26	UJ	ng/L	P304420	LCS

Ref. Method and Comment:

DEP SOP: GC-011-5 (based on EPA 608 and 617): Matrix spikes recoveries for Heptachlor Epoxide and Dieldrin not assessed in duplicate matrix spikes due to high content of these analytes in the spiked sample. Refer to the narrative for an explanation of QC Codes.

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

Sample Location: WEST FORK @ HWY 87

Collection Date/Time: 05/11/2016 14:15

Field ID: FIELDBLANK

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1798260	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P304189	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P304795	
		Sulfate	0.20	U	mg SO4/L	P304798	
	SM 2120 B	Color (true)	2.5	U	PCU	P304258	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P304847	
	SM 2540 C-97	TDS	15	U	mg/L	P304882	
	SM 2540 D-97	TSS	2	U	mg/L	P304864	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P305055	
1798270	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P304552	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P304907	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P304655	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P304978	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P304963	
1798280	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P304184	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The result was confirmed on 05/12/2016.

Quality Assurance Report

Method Blank Results

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

Batch ID: P304213

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

Quality Assurance Report Method Blank Results

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

Batch ID: P304213

Component	Result	Code	Units
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

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P304189

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304781

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304784

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304795

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304798

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P304551

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304552

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304907

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304654

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304655

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304978

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P304183

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P304184

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

Reference Method: EPA 8270D
Batch ID: P304420

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	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P304420

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

Reference Method: EPA 8321B
Batch ID: P304182

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P304490

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P304257

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P304258

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P304258

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P304847

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

Reference Method: SM 2540 C-97
Batch ID: P304881

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P304882

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304863

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304864

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P305055

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P304963

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

Reference Method: SM 5310 B-00
Batch ID: P304981

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P303923

Component	Result	Code	Units
Acetaminophen	0.0040	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P304181

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0020	U	ug/L
2,4-DB	0.0020	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	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
Primidone	0.0080	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: P304213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	93.8	98.1	P/P	70 - 130
Alpha-BHC	94.4	94.8	P/P	70 - 130
Beta-BHC	128	124	P/P	70 - 130
DDD-p,p'	97.6	94.3	P/P	70 - 130
DDE-p,p'	89.1	89.8	P/P	70 - 130
DDT-p,p'	98.5	88.5	P/P	70 - 130
Delta-BHC	91.6	90.0	P/P	70 - 130
Dieldrin	90.4	90.7	P/P	70 - 130
Endosulfan I	92.8	94.0	P/P	70 - 130
Endosulfan II	98.5	96.4	P/P	70 - 130
Endosulfan Sulfate	106	97.3	P/P	70 - 130
Endrin	105	103	P/P	81 - 147
Endrin Aldehyde	88.9	82.2	P/P	70 - 130
Gamma-BHC	89.4	87.2	P/P	70 - 130
Heptachlor	109	108	P/P	70 - 130
Heptachlor Epoxide	94.4	96.6	P/P	70 - 130
Methoxychlor	122	133	P/P	86 - 145

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304784

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304795

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304798

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304551

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304907

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304654

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304655

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P304978

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P304183

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P304184

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

Reference Method: EPA 8270D
 Batch ID: P304420

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	109	92.6	P/P	84 - 119
Alachlor	109	93.9	P/P	84 - 121
Ametryn	113	102	P/P	66 - 127
Atrazine	109	99.9	P/P	72 - 119
Atrazine Desethyl	108	78.6	P/P	21 - 111
Azinphos Methyl	105	85.0	P/P	79 - 185
Bromacil	110	87.7	P/P	39 - 122
Butylate	73.3	71.1	P/P	36 - 94.0
Chlorpyrifos Ethyl	96.8	85.5	P/P	54 - 101
Chlorpyrifos Methyl	82.2	72.3	P/P	28 - 114
Cyanazine	97.9	73.6	P/P	58 - 201
Demeton	74.5	60.0	P/P	57 - 130
Diazinon	101	86.4	P/P	79 - 124
Disulfoton	88.5	68.0	P/P	45 - 140
EPTC	64.0	68.1	P/P	43 - 95.0
Ethion	114	90.5	P/P	65 - 125
Ethoprop	101	90.3	P/P	69 - 107
Fenamiphos	94.4	59.0	P/F	78 - 129
Fipronil	106	97.2	P/P	62 - 125
Fipronil Sulfide	91.8	87.5	P/P	65 - 119
Fipronil Sulfone	95.8	89.9	P/P	64 - 122
Fonofos	86.1	82.7	P/P	70 - 112
Hexazinone	102	92.5	P/P	44 - 147
Malathion	102	95.0	P/P	72 - 125
Metalaxyl	47.0	41.9	F/F	83 - 113
Metolachlor	115	97.3	P/P	85 - 120
Metribuzin	106	92.5	P/P	68 - 129
Mevinphos	83.2	92.8	P/P	35 - 125
Molinate	76.0	77.9	P/P	51 - 100
Norflurazon	107	93.6	P/P	66 - 127
Parathion Ethyl	104	93.0	P/P	86 - 108
Parathion Methyl	92.9	84.9	P/F	87 - 125
Pendimethalin	97.0	83.8	P/P	53 - 136
Phorate	80.8	72.9	P/P	52 - 113

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P304420

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prometon	104	96.1	P/P	67 - 125
Prometryn	106	95.3	P/P	73 - 114
Simazine	110	114	P/P	66 - 123
Terbufos	89.5	76.7	P/P	58 - 116
Terbuthylazine	106	95.1	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P304182

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

Reference Method: EPA 8321B
Batch ID: P304490

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	111		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P304847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P305055

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P304963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P304981

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

Reference Method: USGS O-2060-01
Batch ID: P303923

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	114		P	40 - 140

Reference Method: USGS O-2060-01
Batch ID: P304181

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

Reference Method: USGS O-2060-01
Batch ID: P304181

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	77.2		P	40 - 140
2,4-D	81.2		P	40 - 140
2,4-DB	72.8		P	40 - 140
Acifluorfen	78.0		P	40 - 140
Bentazon	110		P	40 - 140
Carbamazepine	101		P	40 - 140
Dichlorprop	76.8		P	40 - 140
Dinoseb	74.0		P	40 - 140
Diuron	85.2		P	40 - 140
Fenuron	93.6		P	40 - 140
Fluridone	98.0		P	40 - 140
Imidacloprid	87.6		P	40 - 160
Linuron	89.6		P	40 - 140
MCPA	86.8		P	40 - 140
MCPP	73.2		P	40 - 140
Primidone	72.8		P	40 - 140
Silvex	90.0		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P304213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798884	Aldrin	120	128	P/P	70 - 130
1798884	Alpha-BHC	88.4	95.4	P/P	70 - 130
1798884	Beta-BHC	102	110	P/P	70 - 130
1798884	DDD-p,p'	97.3	110	P/P	70 - 130
1798884	DDE-p,p'	84.6	99.2	P/P	70 - 130
1798884	DDT-p,p'	98.5	99.2	P/P	70 - 130
1798884	Delta-BHC	91.1	104	P/P	70 - 130
1798884	Endosulfan I	89.1	104	P/P	70 - 130
1798884	Endosulfan II	100	114	P/P	70 - 130
1798884	Endosulfan Sulfate	104	118	P/P	70 - 130
1798884	Endrin	101	116	P/P	81 - 147
1798884	Endrin Aldehyde	82.8	107	P/P	70 - 130
1798884	Gamma-BHC	86.2	93.4	P/P	70 - 130
1798884	Heptachlor	117	126	P/P	70 - 130
1798884	Methoxychlor	122	118	P/P	86 - 145
1798896	Aldrin	94.3		P	70 - 130
1798896	Alpha-BHC	89.0		P	70 - 130
1798896	Beta-BHC	106		P	70 - 130
1798896	DDD-p,p'	105		P	70 - 130
1798896	DDE-p,p'	94.5		P	70 - 130
1798896	DDT-p,p'	103		P	70 - 130
1798896	Delta-BHC	88.9		P	70 - 130
1798896	Dieldrin	94.2		P	70 - 130
1798896	Endosulfan I	98.5		P	70 - 130
1798896	Endosulfan II	106		P	70 - 130
1798896	Endosulfan Sulfate	107		P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P304213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798896	Endrin	117		P	81 - 147
1798896	Endrin Aldehyde	105		P	70 - 130
1798896	Gamma-BHC	86.0		P	70 - 130
1798896	Heptachlor	112		P	70 - 130
1798896	Heptachlor Epoxide	98.5		P	70 - 130
1798896	Methoxychlor	107		P	86 - 145

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798220	Chloride	98.9		P	90 - 110
1798252	Chloride	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304784

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798220	Sulfate	96.3		P	90 - 110
1798252	Sulfate	95.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798556	Chloride	98.7		P	90 - 110
1798764	Chloride	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P304798

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798556	Sulfate	95.3		P	90 - 110
1798764	Sulfate	97.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P304551

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798221	Ammonia-N	99.4	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P304552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798269	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P304907

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798261	Kjeldahl Nitrogen	106	107	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P304654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798172	NO2NO3-N	101	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P304655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798264	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P304978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798261	Total-P	102	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P304183

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798272	O-Phosphate-P	99.5	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P304184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798277	O-Phosphate-P	100	103	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P304420

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798341	Acetochlor	85.9	90.4	P/P	84 - 119
1798341	Alachlor	89.8	89.9	P/P	84 - 121
1798341	Ametryn	76.3	78.3	P/P	66 - 127
1798341	Atrazine	89.6	98.2	P/P	72 - 119
1798341	Atrazine Desethyl	67.4	75.7	P/P	21 - 111
1798341	Azinphos Methyl	96.4	100	P/P	79 - 185
1798341	Bromacil	83.6	64.4	P/P	39 - 122
1798341	Butylate	57.3	56.5	P/P	36 - 94.0
1798341	Chlorpyrifos Ethyl	83.7	83.0	P/P	54 - 101
1798341	Chlorpyrifos Methyl	70.7	72.8	P/P	28 - 114
1798341	Cyanazine	73.1	79.6	P/P	58 - 201
1798341	Demeton	52.4	51.2	F/F	57 - 130
1798341	Diazinon	80.3	84.6	P/P	79 - 124
1798341	Disulfoton	54.1	59.6	P/P	45 - 140
1798341	EPTC	54.8	50.0	P/P	43 - 95.0
1798341	Ethion	96.7	89.5	P/P	65 - 125
1798341	Ethoprop	81.1	82.9	P/P	69 - 107
1798341	Fenamiphos	79.2	73.5	P/F	78 - 129
1798341	Fipronil	93.8	87.6	P/P	62 - 125
1798341	Fipronil Sulfide	82.9	73.1	P/P	65 - 119
1798341	Fipronil Sulfone	101	92.7	P/P	64 - 122
1798341	Fonofos	73.7	75.1	P/P	70 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P304420

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798341	Hexazinone	120	110	P/P	44 - 147
1798341	Malathion	103	95.6	P/P	72 - 125
1798341	Metalaxyl	90.3	92.4	P/P	83 - 113
1798341	Metolachlor	101	102	P/P	85 - 120
1798341	Metribuzin	62.8	81.3	F/P	68 - 129
1798341	Mevinphos	86.3	86.3	P/P	35 - 125
1798341	Molinate	61.1	66.5	P/P	51 - 100
1798341	Norflurazon	96.2	89.6	P/P	66 - 127
1798341	Parathion Ethyl	92.4	89.4	P/P	86 - 108
1798341	Parathion Methyl	91.2	87.2	P/P	87 - 125
1798341	Pendimethalin	69.6	75.1	P/P	53 - 136
1798341	Phorate	65.6	70.6	P/P	52 - 113
1798341	Prometon	68.0	72.0	P/P	67 - 125
1798341	Prometryn	74.7	83.0	P/P	73 - 114
1798341	Simazine	98.1	96.7	P/P	66 - 123
1798341	Terbufos	69.2	71.5	P/P	58 - 116
1798341	Terbutylazine	98.9	93.7	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P304182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798318	Glyphosate	93.6	88.0	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P304490

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798322	Pyraclostrobin	92.4	116	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P305055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1799332	Fluoride	98.7	99.3	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P304963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798266	Organic Carbon	97.1	96.2	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P304981

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798047	Organic Carbon	97.0	98.2	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P303923

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

Reference Method: USGS O-2060-01
 Batch ID: P303923

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1797459	Acetaminophen	68.4	73.6	P/P	40 - 140

Reference Method: USGS O-2060-01
 Batch ID: P304181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1798319	2,4,5-T	87.2	89.2	P/P	40 - 140
1798319	2,4-D	98.0	93.2	P/P	40 - 140
1798319	2,4-DB	87.6	77.2	P/P	40 - 140
1798319	Acifluorfen	95.6	60.4	P/P	40 - 140
1798319	Bentazon	170	166	F/F	40 - 140
1798319	Carbamazepine	120	129	P/P	40 - 140
1798319	Dichlorprop	87.6	91.6	P/P	40 - 140
1798319	Dinoseb	94.4	79.6	P/P	40 - 140
1798319	Diuron	77.2	95.6	P/P	40 - 140
1798319	Fenuron	89.2	94.8	P/P	40 - 140
1798319	Fluridone	98.0	103	P/P	40 - 140
1798319	Imidacloprid	192	204	F/F	40 - 160
1798319	Linuron	92.0	92.8	P/P	40 - 140
1798319	MCPA	95.2	100	P/P	40 - 140
1798319	MCPP	90.4	87.6	P/P	40 - 140
1798319	Primidone	105	109	P/P	40 - 140
1798319	Silvex	106	108	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
 Batch ID: P304213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798884	Aldrin	7.18	Spike	P	0 - 30
1798884	Alpha-BHC	7.64	Spike	P	0 - 30
1798884	Beta-BHC	7.27	Spike	P	0 - 30
1798884	DDD-p,p'	11.9	Spike	P	0 - 30
1798884	DDE-p,p'	15.8	Spike	P	0 - 30
1798884	DDT-p,p'	0.716	Spike	P	0 - 30
1798884	Delta-BHC	12.9	Spike	P	0 - 30
1798884	Dieldrin	7.35	Spike	P	0 - 30
1798884	Endosulfan I	15.0	Spike	P	0 - 30
1798884	Endosulfan II	13.1	Spike	P	0 - 30
1798884	Endosulfan Sulfate	12.7	Spike	P	0 - 30
1798884	Endrin	14.0	Spike	P	0 - 30
1798884	Endrin Aldehyde	25.1	Spike	P	0 - 30
1798884	Gamma-BHC	7.99	Spike	P	0 - 30
1798884	Heptachlor	7.07	Spike	P	0 - 30
1798884	Heptachlor Epoxide	6.79	Spike	P	0 - 30
1798884	Methoxychlor	3.73	Spike	P	0 - 30
LFB	Aldrin	4.48	LCS	P	0 - 30
LFB	Alpha-BHC	0.424	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P304213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Beta-BHC	3.38	LCS	P	0 - 30
LFB	DDD-p,p'	3.44	LCS	P	0 - 30
LFB	DDE-p,p'	0.776	LCS	P	0 - 30
LFB	DDT-p,p'	10.7	LCS	P	0 - 30
LFB	Delta-BHC	1.85	LCS	P	0 - 30
LFB	Dieldrin	0.316	LCS	P	0 - 30
LFB	Endosulfan I	1.32	LCS	P	0 - 30
LFB	Endosulfan II	2.19	LCS	P	0 - 30
LFB	Endosulfan Sulfate	8.62	LCS	P	0 - 30
LFB	Endrin	2.00	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.83	LCS	P	0 - 30
LFB	Gamma-BHC	2.44	LCS	P	0 - 30
LFB	Heptachlor	0.654	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.35	LCS	P	0 - 30
LFB	Methoxychlor	8.75	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P304189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798251	Turbidity	0.345	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798220	Chloride	0.131	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304784

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798220	Sulfate	1.95	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798764	Chloride	0.152	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798764	Sulfate	1.53	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304551

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798221	Ammonia-N	1.73	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798269	Ammonia-N	0.612	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304907

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798261	Kjeldahl Nitrogen	0.706	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798172	NO2NO3-N	1.96	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798264	NO2NO3-N	1.85	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798261	Total-P	2.72	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P304183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798272	O-Phosphate-P	1.99	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P304184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798277	O-Phosphate-P	2.57	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P304420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798341	Acetochlor	5.05	Spike	P	0 - 30
1798341	Alachlor	0.0800	Spike	P	0 - 30
1798341	Ametryn	2.62	Spike	P	0 - 30
1798341	Atrazine	7.45	Spike	P	0 - 30
1798341	Atrazine Desethyl	11.6	Spike	P	0 - 30
1798341	Azinphos Methyl	3.84	Spike	P	0 - 30
1798341	Bromacil	22.4	Spike	P	0 - 30
1798341	Butylate	1.40	Spike	P	0 - 30
1798341	Chlorpyrifos Ethyl	0.828	Spike	P	0 - 30
1798341	Chlorpyrifos Methyl	3.02	Spike	P	0 - 30
1798341	Cyanazine	8.49	Spike	P	0 - 30
1798341	Demeton	2.32	Spike	P	0 - 30
1798341	Diazinon	5.29	Spike	P	0 - 30
1798341	Disulfoton	9.71	Spike	P	0 - 30
1798341	EPTC	9.20	Spike	P	0 - 30
1798341	Ethion	7.70	Spike	P	0 - 30
1798341	Ethoprop	2.16	Spike	P	0 - 30
1798341	Fenamiphos	7.39	Spike	P	0 - 30
1798341	Fipronil	6.93	Spike	P	0 - 30
1798341	Fipronil Sulfide	12.5	Spike	P	0 - 30
1798341	Fipronil Sulfone	9.04	Spike	P	0 - 30
1798341	Fonofos	1.88	Spike	P	0 - 30
1798341	Hexazinone	7.66	Spike	P	0 - 30
1798341	Malathion	7.02	Spike	P	0 - 30
1798341	Metaxyl	2.30	Spike	P	0 - 30
1798341	Metolachlor	0.481	Spike	P	0 - 30
1798341	Metribuzin	25.6	Spike	P	0 - 30
1798341	Mevinphos	0.0887	Spike	P	0 - 30
1798341	Molinate	8.52	Spike	P	0 - 30
1798341	Norflurazon	6.56	Spike	P	0 - 30
1798341	Parathion Ethyl	3.32	Spike	P	0 - 30
1798341	Parathion Methyl	4.53	Spike	P	0 - 30
1798341	Pendimethalin	6.10	Spike	P	0 - 30
1798341	Phorate	7.32	Spike	P	0 - 30
1798341	Prometon	5.71	Spike	P	0 - 30
1798341	Prometryn	10.5	Spike	P	0 - 30
1798341	Simazine	1.42	Spike	P	0 - 30
1798341	Terbufos	3.26	Spike	P	0 - 30
1798341	Terbutylazine	5.37	Spike	P	0 - 30
LFB	Acetochlor	16.7	LCS	P	0 - 30
LFB	Alachlor	14.6	LCS	P	0 - 30
LFB	Ametryn	9.78	LCS	P	0 - 30
LFB	Atrazine	8.78	LCS	P	0 - 30
LFB	Atrazine Desethyl	31.4	LCS	F	0 - 30
LFB	Azinphos Methyl	20.8	LCS	P	0 - 30
LFB	Bromacil	22.2	LCS	P	0 - 30
LFB	Butylate	3.01	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	12.4	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	12.8	LCS	P	0 - 30
LFB	Cyanazine	28.4	LCS	P	0 - 30
LFB	Demeton	21.6	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P304420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Diazinon	15.2	LCS	P	0 - 30
LFB	Disulfoton	26.1	LCS	P	0 - 30
LFB	EPTC	6.28	LCS	P	0 - 30
LFB	Ethion	22.5	LCS	P	0 - 30
LFB	Ethoprop	11.2	LCS	P	0 - 30
LFB	Fenamiphos	46.2	LCS	F	0 - 30
LFB	Fipronil	9.01	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.86	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.35	LCS	P	0 - 30
LFB	Fonofos	3.95	LCS	P	0 - 30
LFB	Hexazinone	9.74	LCS	P	0 - 30
LFB	Malathion	7.19	LCS	P	0 - 30
LFB	Metalaxyl	11.4	LCS	P	0 - 30
LFB	Metolachlor	16.3	LCS	P	0 - 30
LFB	Metribuzin	13.8	LCS	P	0 - 30
LFB	Mevinphos	11.0	LCS	P	0 - 30
LFB	Molinate	2.43	LCS	P	0 - 30
LFB	Norflurazon	13.4	LCS	P	0 - 30
LFB	Parathion Ethyl	11.6	LCS	P	0 - 30
LFB	Parathion Methyl	9.01	LCS	P	0 - 30
LFB	Pendimethalin	14.6	LCS	P	0 - 30
LFB	Phorate	10.3	LCS	P	0 - 30
LFB	Prometon	8.19	LCS	P	0 - 30
LFB	Prometryn	10.8	LCS	P	0 - 30
LFB	Simazine	3.11	LCS	P	0 - 30
LFB	Terbufos	15.4	LCS	P	0 - 30
LFB	Terbutylazine	11.1	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P304182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798318	Glyphosate	6.17	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P304490

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798322	Pyraclostrobin	22.6	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P304257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798220	Color (true)	0.793	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P304258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798432	Color (true)	0.376	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P304847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1799332	Total Alkalinity	0.569	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P304881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798205	TDS	5.16	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P304882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798533	TDS	1.08	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P304864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798533	TSS	6.74	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P305055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1799332	Fluoride	0.473	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P304963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798266	Organic Carbon	0.845	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P304981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798047	Organic Carbon	1.19	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P303923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1797459	Acetaminophen	7.32	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P304181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1798319	2,4,5-T	2.27	Spike	P	0 - 30
1798319	2,4-D	2.30	Spike	P	0 - 30
1798319	2,4-DB	12.6	Spike	P	0 - 30
1798319	Acifluorfen	45.1	Spike	F	0 - 30
1798319	Bentazon	2.25	Spike	P	0 - 30
1798319	Carbamazepine	7.72	Spike	P	0 - 30
1798319	Dichlorprop	4.46	Spike	P	0 - 30
1798319	Dinoseb	17.0	Spike	P	0 - 30
1798319	Diuron	21.3	Spike	P	0 - 30
1798319	Fenuron	6.09	Spike	P	0 - 30
1798319	Fluridone	5.17	Spike	P	0 - 30
1798319	Imidacloprid	6.26	Spike	P	0 - 30
1798319	Linuron	0.866	Spike	P	0 - 30
1798319	MCPA	4.92	Spike	P	0 - 30
1798319	MCPP	3.15	Spike	P	0 - 30
1798319	Primidone	4.11	Spike	P	0 - 30
1798319	Silvex	2.62	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: 1798318
Field Sample ID: G4NW0240

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	95.4	P	50 - 150
USGS O-2060-01	2,4-D-d3	87.4	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	78.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	118	P	40 - 160
USGS O-2060-01	Diuron-d6	107	P	40 - 150
USGS O-2060-01	Primidone-d5	110	P	40 - 150

Lab Sample ID: 1798319
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	98.2	P	50 - 150
USGS O-2060-01	2,4-D-d3	96.6	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	95.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	136	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1798319
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Diuron-d6	97.4	P	40 - 150
USGS O-2060-01	Primidone-d5	126	P	40 - 150

Lab Sample ID: 1798320
Field Sample ID: FIELDBLANK

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	107	P	50 - 150
USGS O-2060-01	2,4-D-d3	91.6	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	50.8	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	117	P	40 - 160
USGS O-2060-01	Diuron-d6	115	P	40 - 150
USGS O-2060-01	Primidone-d5	100	P	40 - 150

Lab Sample ID: 1798321
Field Sample ID: G4NW0240

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	106	P	40 - 150

Lab Sample ID: 1798322
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	100	P	40 - 150

Lab Sample ID: 1798323
Field Sample ID: FIELDBLANK

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	98.8	P	40 - 150

Lab Sample ID: 1798337
Field Sample ID: G4NW0240

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	76.7	P	44 - 128

Lab Sample ID: 1798338
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	72.1	P	44 - 128

Lab Sample ID: 1798339
Field Sample ID: FIELDBLANK

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	84.5	P	44 - 128

Quality Assurance Report Surrogates

Lab Sample ID: 1798340
Field Sample ID: G4NW0240

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	102	P	67 - 131
EPA 8270D	Simazine-d10	98.4	P	75 - 130

Lab Sample ID: 1798341
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	93.9	P	67 - 131
EPA 8270D	Simazine-d10	88.2	P	75 - 130

Lab Sample ID: 1798342
Field Sample ID: FIELDBLANK

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	91.9	P	67 - 131
EPA 8270D	Simazine-d10	101	P	75 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A39620
Included Lab Sample IDs: 1798251, 1798252, 1798253

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	99.8	100	P/P	90 - 110
Sulfate	99.0	98.0	P/P	90 - 110
Sulfate	99.3	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A69449
Included Lab Sample IDs: 1798271, 1798272, 1798273, 1798274, 1798275, 1798276, 1798277, 1798278, 1798279, 1798280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	99.8	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A69450
Included Lab Sample IDs: 1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260

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

Reference Method: SM 2120 B
Run ID: A69465
Included Lab Sample IDs: 1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A69465

Included Lab Sample IDs: 1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	99.4	P/P	90 - 115
Color (true)	98.4	102	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A69485

Included Lab Sample IDs: 1798318, 1798319, 1798320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	95.2	94.6	P/P	70 - 130

Reference Method: USGS O-2060-01

Run ID: A69497

Included Lab Sample IDs: 1798318, 1798319, 1798320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	93.6	95.6	P/P	50 - 150
2,4-D	95.0	99.2	P/P	50 - 150
2,4-DB	107	111	P/P	50 - 150
Acifluorfen	117	109	P/P	50 - 150
Bentazon	114	118	P/P	50 - 150
Dichlorprop	93.6	98.2	P/P	50 - 150
Dinoseb	119	112	P/P	50 - 150
MCPA	105	111	P/P	50 - 150
MCPP	95.2	94.8	P/P	50 - 150
Silvex	104	112	P/P	50 - 150

Reference Method: USGS O-2060-01

Run ID: A69503

Included Lab Sample IDs: 1798318, 1798319, 1798320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	106	108	P/P	60 - 150
Diuron	72.8	89.2	P/P	60 - 150
Fenuron	95.6	97.6	P/P	60 - 150
Fluridone	90.4	90.4	P/P	60 - 150
Imidacloprid	94.0	99.6	P/P	60 - 150
Linuron	104	112	P/P	60 - 150
Primidone	86.0	88.0	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A69517

Included Lab Sample IDs: 1798318, 1798319, 1798320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	99.6	94.8	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A69554

Included Lab Sample IDs: 1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A69554

Included Lab Sample IDs: 1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.7	99.7	P/P	90 - 110
Ammonia-N	99.7	99.8	P/P	90 - 110
Ammonia-N	99.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A69565

Included Lab Sample IDs: 1798321, 1798322, 1798323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	82.0	82.4	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A69587

Included Lab Sample IDs: 1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A69620

Included Lab Sample IDs: 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	100	P/P	90 - 110
Chloride	99.8	99.6	P/P	90 - 110
Sulfate	98.2	99.0	P/P	90 - 110
Sulfate	99.0	97.8	P/P	90 - 110

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

Run ID: A69626

Included Lab Sample IDs: 1798337, 1798338, 1798339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	94.3	90.9	P/P	85 - 115
Alpha-BHC	105	101	P/P	85 - 115
Beta-BHC	95.8	93.0	P/P	85 - 115
Carbophenothion	103	106	P/P	90 - 110
Chlorothalonil	88.7*	90.1	F/P	90 - 110
Cypermethrin	102	99.6	P/P	85 - 115
DDD-p,p'	96.9	94.2	P/P	85 - 115
DDE-p,p'	93.6	90.7	P/P	85 - 115
DDT-p,p'	101	96.9	P/P	85 - 115
Delta-BHC	94.5	88.8	P/P	85 - 115
Dicofol	98.5	95.0	P/P	90 - 110
Dieldrin	94.6	90.7	P/P	85 - 115
Endosulfan I	96.0	93.1	P/P	85 - 115
Endosulfan II	97.0	87.7	P/P	85 - 115
Endosulfan Sulfate	95.1	91.1	P/P	85 - 115
Endrin	95.9	92.2	P/P	85 - 115

Quality Assurance Report Calibration Verification

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

Run ID: A69626

Included Lab Sample IDs: 1798337, 1798338, 1798339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Aldehyde	99.6	95.6	P/P	85 - 115
Gamma-BHC	97.9	94.6	P/P	85 - 115
Heptachlor	98.3	95.0	P/P	85 - 115
Heptachlor Epoxide	96.2	93.1	P/P	85 - 115
Methoxychlor	102	99.7	P/P	90 - 110
Mirex	104	104	P/P	90 - 110
Permethrin	105	103	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A69641

Included Lab Sample IDs: 1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	98.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A69677

Included Lab Sample IDs: 1798266, 1798267, 1798268, 1798269, 1798270

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

Reference Method: SM 5310 B-00

Run ID: A69683

Included Lab Sample IDs: 1798261, 1798262, 1798263, 1798264, 1798265

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

Reference Method: SM 4500 F-C-97

Run ID: A69701

Included Lab Sample IDs: 1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A69705

Included Lab Sample IDs: 1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	103	P/P	90 - 110
Kjeldahl Nitrogen	103	105	P/P	90 - 110
Kjeldahl Nitrogen	105	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A69725

Included Lab Sample IDs: 1798270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A69756

Included Lab Sample IDs: 1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269

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

Reference Method: EPA 8270D

Run ID: A69856

Included Lab Sample IDs: 1798340, 1798342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.0		P	80 - 120
Alachlor	99.9		P	80 - 120
Ametryn	94.5		P	80 - 120
Atrazine	90.8		P	80 - 120
Atrazine Desethyl	103		P	80 - 120
Azinphos Methyl	95.5		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	104		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	96.9		P	80 - 120
Cyanazine	85.4		P	80 - 120
Demeton	94.7		P	80 - 120
Diazinon	103		P	80 - 120
Disulfoton	103		P	80 - 120
EPTC	100		P	80 - 120
Ethion	95.5		P	80 - 120
Ethoprop	97.4		P	80 - 120
Fenamiphos	96.3		P	80 - 120
Fipronil	92.0		P	80 - 120
Fipronil Sulfide	97.3		P	80 - 120
Fipronil Sulfone	94.9		P	80 - 120
Fonofos	97.1		P	80 - 120
Hexazinone	94.7		P	80 - 120
Malathion	94.1		P	80 - 120
Metalaxyl	99.5		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	98.0		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	97.9		P	80 - 120
Norflurazon	96.3		P	80 - 120
Parathion Ethyl	93.5		P	80 - 120
Parathion Methyl	97.4		P	80 - 120
Pendimethalin	96.9		P	80 - 120
Phorate	87.6		P	80 - 120
Prometon	88.3		P	80 - 120
Prometryn	99.7		P	80 - 120
Simazine	106		P	80 - 120
Terbufos	97.4		P	80 - 120
Terbuthylazine	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A69858
Included Lab Sample IDs: 1798341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.4		P	80 - 120
Alachlor	95.2		P	80 - 120
Ametryn	96.6		P	80 - 120
Atrazine	95.0		P	80 - 120
Atrazine Desethyl	99.3		P	80 - 120
Azinphos Methyl	88.9		P	80 - 120
Bromacil	95.4		P	80 - 120
Butylate	91.9		P	80 - 120
Chlorpyrifos Ethyl	93.0		P	80 - 120
Chlorpyrifos Methyl	92.6		P	80 - 120
Cyanazine	92.5		P	80 - 120
Demeton	89.1		P	80 - 120
Diazinon	97.5		P	80 - 120
Disulfoton	105		P	80 - 120
EPTC	86.6		P	80 - 120
Ethion	84.5		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	97.0		P	80 - 120
Fipronil	98.3		P	80 - 120
Fipronil Sulfide	99.1		P	80 - 120
Fipronil Sulfone	87.6		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	96.7		P	80 - 120
Malathion	90.5		P	80 - 120
Metaxyl	93.8		P	80 - 120
Metolachlor	97.5		P	80 - 120
Metribuzin	95.3		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	93.0		P	80 - 120
Norflurazon	92.2		P	80 - 120
Parathion Ethyl	94.9		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	90.8		P	80 - 120
Phorate	90.2		P	80 - 120
Prometon	90.5		P	80 - 120
Prometryn	96.2		P	80 - 120
Simazine	85.6		P	80 - 120
Terbufos	94.3		P	80 - 120
Terbutylazine	94.8		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	
				LCS	MS
				SMP	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery				Precision	MS
						LCS		SMP	
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	93.8	98.1	120	128	94.3	4.48		7.18
	Alpha-BHC	94.4	94.8	88.4	95.4	89.0	0.424		7.64
	Beta-BHC	128	124	102	110	106	3.38		7.27
	DDD-p,p'	97.6	94.3	97.3	110	105	3.44		11.9
	DDE-p,p'	89.1	89.8	84.6	99.2	94.5	0.776		15.8
	DDT-p,p'	98.5	88.5	98.5	99.2	103	10.7		0.716
	Delta-BHC	91.6	90.0	91.1	104	88.9	1.85		12.9
	Dieldrin	90.4	90.7	94.2			0.316		7.35
	Endosulfan I	92.8	94.0	89.1	104	98.5	1.32		15.0
	Endosulfan II	98.5	96.4	100	114	106	2.19		13.1
	Endosulfan Sulfate	106	97.3	104	118	107	8.62		12.7
	Endrin	105	103	101	116	117	2.00		14.0
	Endrin Aldehyde	88.9	82.2	82.8	107	105	7.83		25.1
	Gamma-BHC	89.4	87.2	86.2	93.4	86.0	2.44		7.99
	Heptachlor	109	108	117	126	112	0.654		7.07
	Heptachlor Epoxide	94.4	96.6	98.5			2.35		6.79
	Methoxychlor	122	133	122	118	107	8.75		3.73
EPA 180.1 Rev. 2.0	Turbidity							0.345	
EPA 300.0 Rev. 2.1	Chloride	99.4		98.9	99.9			0.131	
	Chloride	99.2		99.3	98.7			0.152	
	Sulfate	96.8		96.3	95.2			1.95	
	Sulfate	97.0		97.0	95.3			1.53	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2		99.4	101				1.73
	Ammonia-N	98.9		100	101				0.612
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109		106	107				0.706
EPA 353.2 Rev. 2.0	NO2NO3-N	103		101	103				1.96
	NO2NO3-N	104		102	104				1.85
EPA 365.1 Rev. 2.0	Total-P	99.8		102	105				2.72
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.6		99.5	102				1.99
	O-Phosphate-P	103		100	103				2.57
EPA 8270D	Acetochlor	109	92.6	85.9	90.4		16.7		5.05
	Alachlor	109	93.9	89.8	89.9		14.6		0.0800
	Ametryn	113	102	76.3	78.3		9.78		2.62
	Atrazine	109	99.9	89.6	98.2		8.78		7.45
	Atrazine Desethyl	108	78.6	67.4	75.7		31.4		11.6
	Azinphos Methyl	105	85.0	96.4	100		20.8		3.84
	Bromacil	110	87.7	83.6	64.4		22.2		22.4
	Butylate	73.3	71.1	57.3	56.5		3.01		1.40
	Chlorpyrifos Ethyl	96.8	85.5	83.7	83.0		12.4		0.828
	Chlorpyrifos Methyl	82.2	72.3	70.7	72.8		12.8		3.02
	Cyanazine	97.9	73.6	73.1	79.6		28.4		8.49
	Demeton	74.5	60.0	52.4	51.2		21.6		2.32
	Diazinon	101	86.4	80.3	84.6		15.2		5.29
	Disulfoton	88.5	68.0	54.1	59.6		26.1		9.71
	EPTC	64.0	68.1	54.8	50.0		6.28		9.20
	Ethion	114	90.5	96.7	89.5		22.5		7.70
	Ethoprop	101	90.3	81.1	82.9		11.2		2.16
	Fenamiphos	94.4	59.0	79.2	73.5		46.2		7.39
	Fipronil	106	97.2	93.8	87.6		9.01		6.93
	Fipronil Sulfide	91.8	87.5	82.9	73.1		4.86		12.5
	Fipronil Sulfone	95.8	89.9	101	92.7		6.35		9.04
	Fonofos	86.1	82.7	73.7	75.1		3.95		1.88
	Hexazinone	102	92.5	120	110		9.74		7.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Malathion	102	95.0	103	95.6	7.19	7.02
	Metalaxyl	47.0	41.9	90.3	92.4	11.4	2.30
	Metolachlor	115	97.3	101	102	16.3	0.481
	Metribuzin	106	92.5	62.8	81.3	13.8	25.6
	Mevinphos	83.2	92.8	86.3	86.3	11.0	0.0887
	Molinate	76.0	77.9	61.1	66.5	2.43	8.52
	Norflurazon	107	93.6	96.2	89.6	13.4	6.56
	Parathion Ethyl	104	93.0	92.4	89.4	11.6	3.32
	Parathion Methyl	92.9	84.9	91.2	87.2	9.01	4.53
	Pendimethalin	97.0	83.8	69.6	75.1	14.6	6.10
	Phorate	80.8	72.9	65.6	70.6	10.3	7.32
	Prometon	104	96.1	68.0	72.0	8.19	5.71
	Prometryn	106	95.3	74.7	83.0	10.8	10.5
	Simazine	110	114	98.1	96.7	3.11	1.42
	Terbufos	89.5	76.7	69.2	71.5	15.4	3.26
	Terbuthylazine	106	95.1	98.9	93.7	11.1	5.37
	Glyphosate	108		93.6	88.0		6.17
	Pyraclostrobin	111		92.4	116		22.6
EPA 8321B							
SM 2120 B	Color (true)					0.793	
	Color (true)					0.376	
SM 2320 B-97	Total Alkalinity	101				0.569	
SM 2540 C-97	TDS					5.16	
	TDS					1.08	
SM 2540 D-97	TSS					6.74	
SM 4500 F-C-97	Fluoride	96.5		98.7	99.3		0.473
SM 5310 B-00	Organic Carbon	99.2		97.1	96.2		0.845
	Organic Carbon	100		97.0	98.2		1.19
USGS O-2060-01	2,4,5-T	77.2		87.2	89.2		2.27
	2,4-D	81.2		98.0	93.2		2.30
	2,4-DB	72.8		87.6	77.2		12.6
	Acetaminophen	114		68.4	73.6		7.32
	Acifluorfen	78.0		95.6	60.4		45.1
	Bentazon	110		170	166		2.25
	Carbamazepine	101		120	129		7.72
	Dichlorprop	76.8		87.6	91.6		4.46
	Dinoseb	74.0		94.4	79.6		17.0
	Diuron	85.2		77.2	95.6		21.3
	Fenuron	93.6		89.2	94.8		6.09
	Fluridone	98.0		98.0	103		5.17
	Imidacloprid	87.6		192	204		6.26
	Linuron	89.6		92.0	92.8		0.866
	MCPA	86.8		95.2	100		4.92
	MCPP	73.2		90.4	87.6		3.15
	Primidone	72.8		105	109		4.11
	Silvex	90.0		106	108		2.62

Reference Method Descriptions

Method / DoH Cert #
DEP SOP: GC-011-5
(based on EPA 608 and
617) / E31780

Description
Organochlorine pesticides (low levels) in water matrices by GC/ECD.

Associated Samples
1798337, 1798338, 1798339

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1798271, 1798272, 1798273, 1798274, 1798275, 1798276, 1798277, 1798278, 1798279, 1798280
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1798340, 1798341, 1798342
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1798318, 1798319, 1798320
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1798321, 1798322, 1798323
SM 2120 B / E31780	True Color measured at 450 nm	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1798318, 1798319, 1798320
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1798318, 1798319, 1798320

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)	05/12/2016	05/16/2016	Fe-Val Siddell	05/21/2016	Vandana T. Nagar	1798337, 1798338, 1798339
EPA 180.1 Rev. 2.0	05/12/2016			05/12/2016 15:28	Sima Feizi	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
EPA 300.0 Rev. 2.1	05/12/2016			05/20/2016	Elisa J Lutz	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
EPA 350.1 Rev. 2.0	05/12/2016			05/18/2016	Diana M. Turner	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 351.2 Rev. 2.0	05/12/2016	05/24/2016	Sofia Elnemr	05/25/2016	Christopher Armour	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 353.2 Rev. 2.0	05/12/2016			05/19/2016	Peter D. Kaus	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269, 1798270
EPA 365.1 Rev. 2.0	05/12/2016	05/25/2016	Vijayalakshmi Reddy	05/26/2016	Rochelle Y Jackson	1798270
	05/12/2016	05/25/2016	Vijayalakshmi Reddy	05/27/2016	Rochelle Y Jackson	1798261, 1798262, 1798263, 1798264, 1798265, 1798266, 1798267, 1798268, 1798269
EPA 365.1 Rev. 2.0 dissolved	05/12/2016			05/12/2016 15:01	Julia Storbeck	1798272
	05/12/2016			05/12/2016 15:05	Julia Storbeck	1798277
	05/12/2016			05/12/2016 15:17	Julia Storbeck	1798280
	05/12/2016			05/12/2016 15:28	Julia Storbeck	1798271, 1798273
	05/12/2016			05/12/2016 15:29	Julia Storbeck	1798274
	05/12/2016			05/12/2016 15:30	Julia Storbeck	1798275
	05/12/2016			05/12/2016 15:31	Julia Storbeck	1798276
	05/12/2016			05/12/2016 15:32	Julia Storbeck	1798278
	05/12/2016			05/12/2016 15:33	Julia Storbeck	1798279
EPA 8270D	05/12/2016	05/18/2016	Rasheda Ghaffari	06/02/2016	Irina Carbone	1798340, 1798342
	05/12/2016	05/18/2016	Rasheda Ghaffari	06/03/2016	Irina Carbone	1798341
EPA 8321B	05/12/2016	05/16/2016	Mohammad Ghaffari	05/16/2016	Mohammad Ghaffari	1798318, 1798319, 1798320
	05/12/2016	05/18/2016	Hoor Shaik	05/18/2016	Juyoung Kim	1798321, 1798322, 1798323
SM 2120 B	05/12/2016			05/12/2016 16:03	Chrisoulla Rakowski	1798251
	05/12/2016			05/12/2016 16:04	Chrisoulla Rakowski	1798252
	05/12/2016			05/12/2016 16:05	Chrisoulla Rakowski	1798253
	05/12/2016			05/12/2016 16:06	Chrisoulla Rakowski	1798254
	05/12/2016			05/12/2016 16:07	Chrisoulla Rakowski	1798255, 1798256
	05/12/2016			05/12/2016 16:10	Chrisoulla Rakowski	1798257
	05/12/2016			05/12/2016 16:11	Chrisoulla Rakowski	1798258
	05/12/2016			05/12/2016 16:12	Chrisoulla Rakowski	1798259

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	05/12/2016			05/12/2016 16:13	Chrisoulla Rakowski	1798260
SM 2320 B-97	05/12/2016			05/22/2016	Dale L. Simmons	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 2540 C-97	05/12/2016			05/16/2016	Sima Feizi	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 2540 D-97	05/12/2016			05/16/2016	Sima Feizi	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 4500 F-C-97	05/12/2016			05/25/2016	Dale L. Simmons	1798251, 1798252, 1798253, 1798254, 1798255, 1798256, 1798257, 1798258, 1798259, 1798260
SM 5310 B-00	05/12/2016			05/24/2016	Rochelle Y Jackson	1798266, 1798267, 1798268, 1798269, 1798270
	05/12/2016			05/25/2016	Diana M. Turner	1798261, 1798262, 1798263, 1798264, 1798265
USGS O-2060-01	05/12/2016	05/13/2016	Hoor Shaik	05/14/2016	Juyoung Kim	1798318, 1798319, 1798320
	05/12/2016	05/16/2016	Hoor Shaik	05/17/2016	Juyoung Kim	1798318, 1798319, 1798320