

Chemical Analysis Report

NE-DIST-2017-05-26-01

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

Event Description: **Gainesville 3**
Request ID: **RQ-2017-05-22-07**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 21-JUN-2017 11:42



Case Narrative

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

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Lake Alice - center from bridge

Collection Date/Time: 05/25/2017 10:10

Field ID: G1NE0038 05242017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901806	EPA 180.1 Rev. 2.0	Turbidity	9.7		NTU	P325914	
	EPA 300.0 Rev. 2.1	Chloride	17	A	mg Cl/L	P326780	
		Sulfate	31	A	mg SO4/L	P326782	
	SM 2120 B	Color (true)	45		PCU	P325909	
	SM 2320 B-97	Total Alkalinity	55		mg CaCO3/L	P326075	
	SM 2540 C-97	TDS	174		mg/L	P326219	
	SM 2540 D-97	TSS	12		mg/L	P326200	
	SM 4500 F-C-97	Fluoride	0.29		mg F/L	P326077	
1901807	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P326123	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P325941	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.023		mg N/L	P325965	
	EPA 365.1 Rev. 2.0	Total-P	0.58		mg P/L	P325945	
	SM 5310 B-00	Organic Carbon	9.3		mg C/L	P326079	
1901808	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.39		mg P/L	P325912	
1901832	EPA 8321B	Glyphosate**	10	U	ug/L	P325790	
		Pyraclostrobin**	0.0040	U	ug/L	P325788	
		Sucralose**	0.28		ug/L	P325805	
	USGS O-2060-01	2,4-D	0.0030	I	ug/L	P325956	
		Diuron	0.010		ug/L	P325956	
		Fenuron	0.0040	U	ug/L	P325956	
		Imidacloprid	0.015		ug/L	P325956	MS
		Bentazon	8.0E-04	U	ug/L	P325956	MS
		Linuron	0.0040	U	ug/L	P325956	
		Acetaminophen**	0.0080	U	ug/L	P325956	
		MCP	0.0020	U	ug/L	P325956	
		Carbamazepine**	8.8E-04	I	ug/L	P325956	
		Triclopyr**	0.0040	U	ug/L	P325956	
		Primidone**	0.0040	U	ug/L	P325956	
		Fluridone**	0.0010	I	ug/L	P325956	
	EPA 200.7 Rev. 4.4	Calcium	29.6		mg/L	P325995	
		Iron	63	I	ug/L	P325995	
		Magnesium	5.86		mg/L	P325995	
		Potassium	3.0		mg/L	P325995	
		Sodium	10.2		mg/L	P325995	
		Zinc	5.0	U	ug/L	P325995	
	EPA 200.8 Rev. 5.4	Arsenic	0.78		ug/L	P325995	
		Cadmium	0.020	U	ug/L	P325995	
		Chromium	0.40	U	ug/L	P325995	
		Copper	2.71		ug/L	P325995	
		Lead	0.54		ug/L	P326641	
		Nickel	0.35	I	ug/L	P325995	
		Silver	0.020	I	ug/L	P325995	
1901834	EPA 8270D	Aldrin	4.8	U	ng/L	P325976	

Field ID: G1NE0038 05242017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901834	EPA 8270D	Alpha-BHC	2.4	U	ng/L	P325976	
		Beta-BHC	4.8	U	ng/L	P325976	
		Delta-BHC	4.8	U	ng/L	P325976	
		Gamma-BHC	4.8	U	ng/L	P325976	
		Carbophenothion	4.8	UJ	ng/L	P325976	CCV
		Chlorothalonil	2.4	UJ	ng/L	P325976	MS
		Cypermethrin	24	U	ng/L	P325976	
		DDD-p,p'	2.4	U	ng/L	P325976	
		DDE-p,p'	3.6	U	ng/L	P325976	
		DDT-p,p'	3.6	U	ng/L	P325976	
		Dieldrin	4.8	U	ng/L	P325976	
		Endosulfan I	4.8	U	ng/L	P325976	
		Endosulfan II	4.8	U	ng/L	P325976	
		Endosulfan Sulfate	2.4	U	ng/L	P325976	
		Endrin	2.4	U	ng/L	P325976	
		Endrin Aldehyde	2.4	U	ng/L	P325976	
		Heptachlor	1.8	U	ng/L	P325976	
		Heptachlor Epoxide	2.4	U	ng/L	P325976	
		Methoxychlor	4.8	U	ng/L	P325976	
		Mirex	2.4	U	ng/L	P325976	
		Permethrin	12	U	ng/L	P325976	
		Trifluralin	1.2	U	ng/L	P325976	
		Alpha-Chlordane	1.2	U	ng/L	P325976	
		Gamma-Chlordane	1.2	U	ng/L	P325976	
		Endrin Ketone	2.4	U	ng/L	P325976	
		Dicofol	36	UJ	ng/L	P325976	MS
1901835		Alachlor	0.24	U	ng/L	P325833	
		Ametryn	0.32	U	ng/L	P325833	
		Atrazine	2.6		ng/L	P325833	
		Atrazine Desethyl	1.5	U	ng/L	P325833	RPD
		Azinphos Methyl	2.2	U	ng/L	P325833	
		Bromacil	6.2		ng/L	P325833	
		Butylate	0.39	U	ng/L	P325833	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P325833	
		Chlorpyrifos Methyl	0.098	U	ng/L	P325833	
		Demeton	2.0	U	ng/L	P325833	
		Diazinon	0.12	U	ng/L	P325833	
		Disulfoton	0.32	U	ng/L	P325833	
		EPTC	1.2	U	ng/L	P325833	
		Ethion	0.15	U	ng/L	P325833	
		Ethoprop	0.098	U	ng/L	P325833	MS
		Fenamiphos	0.24	U	ng/L	P325833	
		Fipronil	0.60	I	ng/L	P325833	
		Fipronil Sulfide	1.6		ng/L	P325833	
		Fipronil Sulfone	1.4		ng/L	P325833	

Field ID: G1NE0038 05242017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901835	EPA 8270D	Hexazinone	0.49	U	ng/L	P325833	
		Malathion	0.34	U	ng/L	P325833	
		Metribuzin	0.20	U	ng/L	P325833	
		Mevinphos	0.49	U	ng/L	P325833	
		Molinate	0.29	U	ng/L	P325833	
		Norflurazon	0.49	U	ng/L	P325833	
		Pendimethalin	1.5	U	ng/L	P325833	
		Phorate	0.24	UJ	ng/L	P325833	RPD
		Prometon	1.9	I	ng/L	P325833	
		Prometryn	0.20	U	ng/L	P325833	
		Simazine	1.3	I	ng/L	P325833	
		Terbufos	0.098	U	ng/L	P325833	
		Terbutylazine	0.42	U	ng/L	P325833	
		Fonofos	0.20	U	ng/L	P325833	
		Metalaxyl	86		ng/L	P325833	
		Metolachlor	3.2		ng/L	P325833	
		Acetochlor	0.24	U	ng/L	P325833	
		Cyanazine	0.49	U	ng/L	P325833	
		Parathion Ethyl	0.24	U	ng/L	P325833	
		Parathion Methyl	0.24	U	ng/L	P325833	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

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

USGS O-2060-01: Results confirmed in re-extraction. MS accuracy for fenuron and fluridone could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270D: Insufficient sample available to perform duplicate matrix spikes. Refer to the narrative for an explanation of QC Codes.

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

Sample Location: Calf Pond - Center

Collection Date/Time: 05/25/2017 12:00

Field ID: G1NE0862 05242017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901803	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P325914	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P326765	
		Sulfate	18		mg SO4/L	P326768	
		SM 2120 B	Color (true)	60		PCU	P325909
	SM 2320 B-97	Total Alkalinity	66	A	mg CaCO3/L	P326075	
	SM 2540 C-97	TDS	159		mg/L	P326219	
	SM 2540 D-97	TSS	3	I	mg/L	P326200	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P326077	
1901804	EPA 350.1 Rev. 2.0	Ammonia-N	0.066		mg N/L	P326123	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.88		mg N/L	P325941	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P325965	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P325945	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P326079	

Field ID: G1NE0862 05242017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1901805	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.041		mg P/L	P325912	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P325914

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P325995

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P325995

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P326641

Component	Result	Code	Units
Lead	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P326765

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P326768

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: P326780

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326782

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325912

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

Reference Method: EPA 8270D
Batch ID: P325833

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D

Batch ID: P325833

Component	Result	Code	Units
Cyanazine	0.50	U	ng/L
Demeton	2.0	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 8270D

Batch ID: P325976

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	2.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P325976

Component	Result	Code	Units
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8321B
Batch ID: P325788

Component	Result	Code	Units
Pyraclostrobin	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P325790

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P325805

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P325909

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P326075

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

Reference Method: SM 2540 C-97
Batch ID: P326219

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P326200

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326079

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

Reference Method: USGS O-2060-01
Batch ID: P325956

Component	Result	Code	Units
2,4-D	8.0E-04	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0040	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	106		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	100		P	85 - 115
Sodium	105		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.1		P	85 - 115
Cadmium	97.6		P	85 - 115
Chromium	92.7		P	85 - 115
Copper	94.3		P	85 - 115
Nickel	96.2		P	85 - 115
Silver	94.4		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	96.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326765

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326780

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	92.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

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: P325941

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	94.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.1		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P325833

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.7	86.9	P/P	78 - 118
Alachlor	90.4	87.6	P/P	77 - 119
Ametryn	107	96.7	P/P	61 - 136
Atrazine	98.8	97.8	P/P	73 - 120
Atrazine Desethyl	70.8	58.2	P/P	16 - 122
Azinphos Methyl	145	114	P/P	69 - 186
Bromacil	70.5	72.4	P/P	40 - 125
Butylate	64.7	52.2	P/P	32 - 87.0
Chlorpyrifos Ethyl	91.5	85.9	P/P	53 - 110
Chlorpyrifos Methyl	96.5	84.4	P/P	31 - 119
Cyanazine	107	93.6	P/P	36 - 224
Demeton	98.8	81.1	P/P	39 - 122
Diazinon	93.0	87.2	P/P	75 - 119
Disulfoton	89.1	71.5	P/P	42 - 139
EPTC	63.8	50.8	P/P	33 - 96.0
Ethion	94.8	92.9	P/P	63 - 127
Ethoprop	97.8	81.4	P/P	65 - 107
Fenamiphos	106	92.4	P/P	64 - 137
Fipronil	92.6	93.9	P/P	60 - 126
Fipronil Sulfide	86.4	89.1	P/P	58 - 124
Fipronil Sulfone	75.6	83.6	P/P	57 - 126
Fonofos	91.9	76.5	P/P	65 - 111
Hexazinone	88.5	89.8	P/P	46 - 151
Malathion	103	95.9	P/P	68 - 132
Metaxyl	87.0	72.5	P/P	51 - 132
Metolachlor	91.3	90.2	P/P	78 - 119
Metribuzin	120	98.5	P/P	64 - 138
Mevinphos	97.7	74.1	P/P	34 - 128
Molinate	68.7	57.1	P/P	44 - 101
Norflurazon	92.1	86.4	P/P	63 - 129
Parathion Ethyl	95.3	95.5	P/P	80 - 109
Parathion Methyl	103	94.8	P/P	74 - 125
Pendimethalin	90.2	89.1	P/P	48 - 134
Phorate	115	83.1	P/P	52 - 119
Prometon	102	85.8	P/P	69 - 124
Prometryn	102	90.4	P/P	66 - 124
Simazine	97.3	92.2	P/P	61 - 134
Terbufos	91.6	75.5	P/P	58 - 115
Terbutylazine	92.4	91.7	P/P	77 - 113

Reference Method: EPA 8270D
Batch ID: P325976

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.4	47.8	P/P	30 - 83.0
Alpha-BHC	92.6	85.7	P/P	62 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P325976

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alpha-Chlordane	90.5	87.2	P/P	56 - 119
Beta-BHC	105	97.4	P/P	54 - 141
Carbophenothion	88.4	86.2	P/P	33 - 147
Chlorothalonil	84.8	102	P/P	25 - 175
Cypermethrin	92.4	106	P/P	50 - 155
DDD-p,p'	99.9	102	P/P	56 - 135
DDE-p,p'	89.4	88.0	P/P	48 - 120
DDT-p,p'	87.2	88.9	P/P	51 - 121
Delta-BHC	128	116	P/P	65 - 163
Dicofol	70.3	68.7	P/P	15 - 112
Dieldrin	96.5	91.1	P/P	59 - 134
Endosulfan I	92.5	94.0	P/P	65 - 142
Endosulfan II	99.9	104	P/P	65 - 154
Endosulfan Sulfate	99.6	102	P/P	65 - 136
Endrin	93.6	90.0	P/P	53 - 156
Endrin Aldehyde	96.9	91.7	P/P	47 - 156
Endrin Ketone	87.3	89.5	P/P	70 - 124
Gamma-BHC	96.7	87.2	P/P	64 - 142
Gamma-Chlordane	90.1	88.8	P/P	55 - 114
Heptachlor	81.2	82.7	P/P	42 - 105
Heptachlor Epoxide	88.4	86.6	P/P	67 - 120
Methoxychlor	93.9	94.1	P/P	63 - 134
Mirex	75.9	75.5	P/P	40 - 90.0
Permethrin	85.4	95.3	P/P	36 - 144
Trifluralin	95.6	90.7	P/P	40 - 170

Reference Method: EPA 8321B
Batch ID: P325788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	47.2		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P325790

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	91.2		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P325805

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	79.3		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P326075

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.7		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P325956

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	90.0		P	40 - 140
Acetaminophen	119		P	40 - 140
Bentazon	71.6		P	40 - 140
Carbamazepine	127		P	40 - 140
Diuron	129		P	40 - 140
Fenuron	111		P	40 - 140
Fluridone	127		P	40 - 140
Imidacloprid	110		P	40 - 160
Linuron	117		P	40 - 140
MCPP	101		P	40 - 140
Primidone	112		P	40 - 140
Triclopyr	101		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901521	Calcium	106		P	80 - 120
1901521	Iron	105	105	P/P	80 - 120
1901521	Magnesium	105		P	80 - 120
1901521	Potassium	101	99.6	P/P	80 - 120
1901521	Sodium	106		P	80 - 120
1901521	Zinc	99.3	98.4	P/P	80 - 120
1901736	Calcium	96.6		P	80 - 120
1901736	Iron	105		P	80 - 120
1901736	Magnesium	104		P	80 - 120
1901736	Potassium	102		P	80 - 120
1901736	Sodium	99.0		P	80 - 120
1901736	Zinc	100		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901521	Arsenic	98.5	97.5	P/P	80 - 120
1901521	Cadmium	103	101	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901521	Chromium	93.5	93.6	P/P	80 - 120
1901521	Copper	93.8	93.1	P/P	80 - 120
1901521	Nickel	95.5	94.8	P/P	80 - 120
1901521	Silver	94.9	96.0	P/P	80 - 120
1901736	Arsenic	97.8		P	80 - 120
1901736	Cadmium	102		P	80 - 120
1901736	Chromium	89.9		P	80 - 120
1901736	Copper	93.7		P	80 - 120
1901736	Nickel	95.1		P	80 - 120
1901736	Silver	92.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901502	Lead	100	99.1	P/P	80 - 120
1901737	Lead	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901900	Chloride	101		P	90 - 110
1902025	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901900	Sulfate	95.2		P	90 - 110
1902025	Sulfate	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901806	Chloride	96.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901787	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901787	Kjeldahl Nitrogen	102	91.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901704	NO2NO3-N	95.7	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901790	Total-P	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901805	O-Phosphate-P	95.8	96.5	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P325833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900695	Acetochlor	101	100	P/P	74 - 123
1900695	Alachlor	106	104	P/P	73 - 124
1900695	Ametryn	147	145	P/P	56 - 149
1900695	Atrazine	103	103	P/P	73 - 124
1900695	Atrazine Desethyl	47.6	71.3	P/P	12 - 103
1900695	Azinphos Methyl	163	161	P/P	60 - 202
1900695	Bromacil	90.4	89.2	P/P	42 - 133
1900695	Butylate	52.1	55.3	P/P	10 - 85.0
1900695	Chlorpyrifos Ethyl	86.6	89.5	P/P	53 - 113
1900695	Chlorpyrifos Methyl	96.5	93.0	P/P	40 - 115
1900695	Cyanazine	103	98.9	P/P	22 - 210
1900695	Demeton	106	103	P/P	17 - 149
1900695	Diazinon	108	107	P/P	72 - 124
1900695	Disulfoton	92.3	89.8	P/P	43 - 139
1900695	EPTC	52.7	52.7	P/P	10 - 86.0
1900695	Ethion	101	100	P/P	65 - 131
1900695	Ethoprop	116	112	F/F	59 - 110
1900695	Fenamiphos	98.0	94.1	P/P	57 - 138
1900695	Fipronil	92.3	91.8	P/P	40 - 130
1900695	Fipronil Sulfide	81.1	79.8	P/P	36 - 128
1900695	Fipronil Sulfone	68.4	66.4	P/P	16 - 145
1900695	Fonofos	104	104	P/P	60 - 112
1900695	Hexazinone	97.5	96.3	P/P	69 - 142
1900695	Malathion	104	101	P/P	68 - 132
1900695	Metalaxyl	90.4	90.3	P/P	66 - 118
1900695	Metolachlor	99.1	98.3	P/P	71 - 124
1900695	Metribuzin	116	114	P/P	61 - 140
1900695	Mevinphos	108	111	P/P	38 - 130
1900695	Molinate	66.3	65.2	P/P	23 - 99.0
1900695	Norflurazon	87.5	87.3	P/P	39 - 139
1900695	Parathion Ethyl	101	100	P/P	75 - 111
1900695	Parathion Methyl	108	109	P/P	64 - 130
1900695	Pendimethalin	98.3	98.6	P/P	26 - 173
1900695	Phorate	115	109	P/P	43 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P325833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900695	Prometon	117	116	P/P	50 - 144
1900695	Prometryn	91.6	90.6	P/P	69 - 126
1900695	Simazine	93.4	98.3	P/P	51 - 152
1900695	Terbufos	107	106	P/P	54 - 125
1900695	Terbuthylazine	99.4	97.9	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P325976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901834	Aldrin	43.4		P	30 - 83.0
1901834	Alpha-BHC	63.8		P	62 - 119
1901834	Alpha-Chlordane	61.3		P	56 - 119
1901834	Beta-BHC	76.9		P	54 - 141
1901834	Carbophenothion	126		P	33 - 147
1901834	Chlorothalonil	181		F	25 - 175
1901834	Cypermethrin	143		P	50 - 155
1901834	DDD-p,p'	72.3		P	56 - 135
1901834	DDE-p,p'	57.8		P	48 - 120
1901834	DDT-p,p'	63.3		P	51 - 121
1901834	Delta-BHC	89.6		P	65 - 163
1901834	Dicofol	13.8		F	15 - 112
1901834	Dieldrin	64.9		P	59 - 134
1901834	Endosulfan I	77.2		P	65 - 142
1901834	Endosulfan II	90.3		P	65 - 154
1901834	Endosulfan Sulfate	92.5		P	65 - 136
1901834	Endrin	72.9		P	53 - 156
1901834	Endrin Aldehyde	58.8		P	47 - 156
1901834	Endrin Ketone	101		P	70 - 124
1901834	Gamma-BHC	71.1		P	64 - 142
1901834	Gamma-Chlordane	62.8		P	55 - 114
1901834	Heptachlor	57.9		P	42 - 105
1901834	Heptachlor Epoxide	73.8		P	67 - 120
1901834	Methoxychlor	73.1		P	63 - 134
1901834	Mirex	48.2		P	40 - 90.0
1901834	Permethrin	91.9		P	36 - 144
1901834	Trifluralin	112		P	40 - 170

Reference Method: EPA 8321B
Batch ID: P325788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901499	Pyraclostrobin	89.6	101	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P325790

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1900995	Glyphosate	101	97.0	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P325805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901732	Sucralose	94.3	75.7	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901803	Fluoride	101	105	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P326079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901538	Organic Carbon	90.0	94.0	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P325956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1901733	2,4-D	98.6	131	P/P	40 - 140
1901733	Acetaminophen	119	126	P/P	40 - 140
1901733	Bentazon	36.8	41.0	F/P	40 - 140
1901733	Carbamazepine	76.8	92.0	P/P	40 - 140
1901733	Diuron	62.4	74.0	P/P	40 - 140
1901733	Imidacloprid	144	177	P/F	40 - 160
1901733	Linuron	91.0	104	P/P	40 - 140
1901733	MCP	72.0	75.4	P/P	40 - 140
1901733	Primidone	79.2	94.4	P/P	40 - 140
1901733	Triclopyr	84.8	85.8	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P325914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901789	Turbidity	2.64	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901521	Calcium	0.177	Spike	P	0 - 20
1901521	Iron	0.155	Spike	P	0 - 20
1901521	Magnesium	0.936	Spike	P	0 - 20
1901521	Potassium	0.737	Spike	P	0 - 20
1901521	Sodium	0.0617	Spike	P	0 - 20
1901521	Zinc	0.922	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901521	Arsenic	1.06	Spike	P	0 - 20
1901521	Cadmium	2.17	Spike	P	0 - 20
1901521	Chromium	0.187	Spike	P	0 - 20
1901521	Copper	0.688	Spike	P	0 - 20
1901521	Nickel	0.774	Spike	P	0 - 20
1901521	Silver	1.12	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P326641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901502	Lead	1.19	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901900	Chloride	0.814	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901900	Sulfate	1.08	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901806	Chloride	2.85	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P326782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901806	Sulfate	2.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901787	Ammonia-N	0.431	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P325941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901787	Kjeldahl Nitrogen	7.39	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P325965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901704	NO2NO3-N	4.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P325945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901790	Total-P	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P325912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901805	O-Phosphate-P	0.509	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P325833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900695	Acetochlor	0.235	Spike	P	0 - 30
1900695	Alachlor	1.81	Spike	P	0 - 30
1900695	Ametryn	0.894	Spike	P	0 - 30
1900695	Atrazine	0.0496	Spike	P	0 - 30
1900695	Atrazine Desethyl	39.9	Spike	F	0 - 30
1900695	Azinphos Methyl	1.49	Spike	P	0 - 30
1900695	Bromacil	1.37	Spike	P	0 - 30
1900695	Butylate	5.99	Spike	P	0 - 30
1900695	Chlorpyrifos Ethyl	3.24	Spike	P	0 - 30
1900695	Chlorpyrifos Methyl	3.69	Spike	P	0 - 30
1900695	Cyanazine	4.41	Spike	P	0 - 30
1900695	Demeton	2.49	Spike	P	0 - 30
1900695	Diazinon	1.15	Spike	P	0 - 30
1900695	Disulfoton	2.69	Spike	P	0 - 30
1900695	EPTC	0.0211	Spike	P	0 - 30
1900695	Ethion	1.10	Spike	P	0 - 30
1900695	Ethoprop	3.38	Spike	P	0 - 30
1900695	Fenamiphos	4.01	Spike	P	0 - 30
1900695	Fipronil	0.514	Spike	P	0 - 30
1900695	Fipronil Sulfide	1.65	Spike	P	0 - 30
1900695	Fipronil Sulfone	3.02	Spike	P	0 - 30
1900695	Fonofos	0.396	Spike	P	0 - 30
1900695	Hexazinone	1.09	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P325833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900695	Malathion	2.82	Spike	P	0 - 30
1900695	Metalaxyl	0.142	Spike	P	0 - 30
1900695	Metolachlor	0.769	Spike	P	0 - 30
1900695	Metribuzin	1.94	Spike	P	0 - 30
1900695	Mevinphos	2.86	Spike	P	0 - 30
1900695	Molinate	1.65	Spike	P	0 - 30
1900695	Norflurazon	0.258	Spike	P	0 - 30
1900695	Parathion Ethyl	1.06	Spike	P	0 - 30
1900695	Parathion Methyl	0.524	Spike	P	0 - 30
1900695	Pendimethalin	0.210	Spike	P	0 - 30
1900695	Phorate	5.40	Spike	P	0 - 30
1900695	Prometon	0.593	Spike	P	0 - 30
1900695	Prometryn	1.07	Spike	P	0 - 30
1900695	Simazine	4.32	Spike	P	0 - 30
1900695	Terbufos	0.876	Spike	P	0 - 30
1900695	Terbutylazine	1.58	Spike	P	0 - 30
LFB	Acetochlor	6.48	LCS	P	0 - 30
LFB	Alachlor	3.09	LCS	P	0 - 30
LFB	Ametryn	10.3	LCS	P	0 - 30
LFB	Atrazine	0.989	LCS	P	0 - 30
LFB	Atrazine Desethyl	19.5	LCS	P	0 - 30
LFB	Azinphos Methyl	24.2	LCS	P	0 - 30
LFB	Bromacil	2.61	LCS	P	0 - 30
LFB	Butylate	21.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.36	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	13.3	LCS	P	0 - 30
LFB	Cyanazine	13.3	LCS	P	0 - 30
LFB	Demeton	19.6	LCS	P	0 - 30
LFB	Diazinon	6.47	LCS	P	0 - 30
LFB	Disulfoton	21.9	LCS	P	0 - 30
LFB	EPTC	22.6	LCS	P	0 - 30
LFB	Ethion	2.03	LCS	P	0 - 30
LFB	Ethoprop	18.3	LCS	P	0 - 30
LFB	Fenamiphos	13.2	LCS	P	0 - 30
LFB	Fipronil	1.43	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.12	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.97	LCS	P	0 - 30
LFB	Fonofos	18.3	LCS	P	0 - 30
LFB	Hexazinone	1.41	LCS	P	0 - 30
LFB	Malathion	7.00	LCS	P	0 - 30
LFB	Metalaxyl	18.2	LCS	P	0 - 30
LFB	Metolachlor	1.25	LCS	P	0 - 30
LFB	Metribuzin	19.5	LCS	P	0 - 30
LFB	Mevinphos	27.6	LCS	P	0 - 30
LFB	Molinate	18.5	LCS	P	0 - 30
LFB	Norflurazon	6.39	LCS	P	0 - 30
LFB	Parathion Ethyl	0.125	LCS	P	0 - 30
LFB	Parathion Methyl	8.30	LCS	P	0 - 30
LFB	Pendimethalin	1.25	LCS	P	0 - 30
LFB	Phorate	32.0	LCS	F	0 - 30
LFB	Prometon	16.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P325833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prometryn	12.4	LCS	P	0 - 30
LFB	Simazine	5.38	LCS	P	0 - 30
LFB	Terbufos	19.2	LCS	P	0 - 30
LFB	Terbutylazine	0.753	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P325976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	5.30	LCS	P	0 - 30
LFB	Alpha-BHC	7.67	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.71	LCS	P	0 - 30
LFB	Beta-BHC	7.67	LCS	P	0 - 30
LFB	Carbophenothion	2.59	LCS	P	0 - 30
LFB	Chlorothalonil	18.6	LCS	P	0 - 30
LFB	Cypermethrin	13.5	LCS	P	0 - 30
LFB	DDD-p,p'	1.71	LCS	P	0 - 30
LFB	DDE-p,p'	1.58	LCS	P	0 - 30
LFB	DDT-p,p'	1.92	LCS	P	0 - 30
LFB	Delta-BHC	9.82	LCS	P	0 - 30
LFB	Dicofol	2.25	LCS	P	0 - 30
LFB	Dieldrin	5.77	LCS	P	0 - 30
LFB	Endosulfan I	1.64	LCS	P	0 - 30
LFB	Endosulfan II	3.85	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.80	LCS	P	0 - 30
LFB	Endrin	3.99	LCS	P	0 - 30
LFB	Endrin Aldehyde	5.51	LCS	P	0 - 30
LFB	Endrin Ketone	2.50	LCS	P	0 - 30
LFB	Gamma-BHC	10.4	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.45	LCS	P	0 - 30
LFB	Heptachlor	1.88	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.11	LCS	P	0 - 30
LFB	Methoxychlor	0.213	LCS	P	0 - 30
LFB	Mirex	0.453	LCS	P	0 - 30
LFB	Permethrin	11.0	LCS	P	0 - 30
LFB	Trifluralin	5.28	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P325788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901499	Pyraclostrobin	11.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P325790

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1900995	Glyphosate	4.44	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P325805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901732	Sucralose	19.4	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P325909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901789	Color (true)	1.55	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901803	Total Alkalinity	0.218	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P326219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901786	TDS	3.14	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P326077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901803	Fluoride	2.42	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901538	Organic Carbon	2.71	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P325956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901733	2,4-D	2.71	Spike	P	0 - 30
1901733	Acetaminophen	5.38	Spike	P	0 - 30
1901733	Bentazon	4.39	Spike	P	0 - 30
1901733	Carbamazepine	18.0	Spike	P	0 - 30
1901733	Diuron	14.1	Spike	P	0 - 30
1901733	Fenuron	4.58	Spike	P	0 - 30
1901733	Fluridone	10.3	Spike	P	0 - 30
1901733	Imidacloprid	15.9	Spike	P	0 - 30
1901733	Linuron	12.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P325956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1901733	MCP	4.61	Spike	P	0 - 30
1901733	Primidone	17.5	Spike	P	0 - 30
1901733	Triclopyr	1.17	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: 1901832
Field Sample ID: G1NE0038 05242017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	120	P	30 - 150
EPA 8321B	Carbamazepine-d10	88.5	P	30 - 160
EPA 8321B	Diuron-d6	91.1	P	30 - 160
EPA 8321B	Diuron-d6	75.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	40 - 150
EPA 8321B	Primidone-d5	113	P	30 - 150
EPA 8321B	Sucralose-d6	71.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	86.8	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	120	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	88.5	P	30 - 160
USGS O-2060-01	Diuron-d6	91.1	P	30 - 160
USGS O-2060-01	Diuron-d6	75.6	P	30 - 160
USGS O-2060-01	Primidone-d5	113	P	30 - 150

Lab Sample ID: 1901834
Field Sample ID: G1NE0038 05242017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	53.9	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	37.3	P	31 - 111

Lab Sample ID: 1901835
Field Sample ID: G1NE0038 05242017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	86.4	P	62 - 132
EPA 8270D	Simazine-d10	116	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A76713
Included Lab Sample IDs: 1901803, 1901806

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: A76713

Included Lab Sample IDs: 1901803, 1901806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	99.7	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A76716

Included Lab Sample IDs: 1901805, 1901808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	99.2	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A76717

Included Lab Sample IDs: 1901803, 1901806

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

Reference Method: EPA 8321B

Run ID: A76722

Included Lab Sample IDs: 1901832

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	93.4	94.8	P/P	70 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76743

Included Lab Sample IDs: 1901804, 1901807

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A76745

Included Lab Sample IDs: 1901832

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	66.0	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A76790

Included Lab Sample IDs: 1901803, 1901806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	105	P/P	90 - 110
Total Alkalinity	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A76790

Included Lab Sample IDs: 1901803, 1901806

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

Reference Method: SM 4500 F-C-97

Run ID: A76790

Included Lab Sample IDs: 1901803, 1901806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.2	97.6	P/P	90 - 110
Fluoride	97.6	97.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76794

Included Lab Sample IDs: 1901804, 1901807

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76799

Included Lab Sample IDs: 1901804, 1901807

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A76803

Included Lab Sample IDs: 1901804, 1901807

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76815

Included Lab Sample IDs: 1901804, 1901807

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A76847

Included Lab Sample IDs: 1901833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	103	102	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	102	104	P/P	90 - 110
Zinc	102	99.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A76863

Included Lab Sample IDs: 1901832

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	89.6	87.6	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A76890

Included Lab Sample IDs: 1901834

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.0		P	80 - 120
Alpha-BHC	104		P	80 - 120
Alpha-Chlordane	95.5		P	80 - 120
Beta-BHC	100		P	80 - 120
Carbophenothion	75.3*		F	80 - 120
Chlorothalonil	110		P	80 - 120
Cypermethrin	89.7		P	80 - 120
DDD-p,p'	97.7		P	80 - 120
DDE-p,p'	95.7		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	109		P	80 - 120
Dicofol	88.5		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	95.0		P	80 - 120
Endosulfan II	89.9		P	80 - 120
Endosulfan Sulfate	98.2		P	80 - 120
Endrin	88.3		P	80 - 120
Endrin Aldehyde	92.7		P	80 - 120
Endrin Ketone	97.7		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	93.5		P	80 - 120
Heptachlor	90.4		P	80 - 120
Heptachlor Epoxide	93.0		P	80 - 120
Methoxychlor	111		P	80 - 120
Mirex	96.7		P	80 - 120
Permethrin	95.2		P	80 - 120
Trifluralin	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76899

Included Lab Sample IDs: 1901833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	92.3	91.1	P/P	90 - 110
Cadmium	96.3	97.2	P/P	90 - 110
Chromium	92.7	90.8	P/P	90 - 110
Silver	96.5	96.1	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A76907

Included Lab Sample IDs: 1901835

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.3		P	80 - 120
Alachlor	99.3		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	100		P	80 - 120
Azinphos Methyl	97.4		P	80 - 120
Bromacil	110		P	80 - 120
Butylate	99.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A76907

Included Lab Sample IDs: 1901835

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlorpyrifos Ethyl	98.1		P	80 - 120
Chlorpyrifos Methyl	98.5		P	80 - 120
Cyanazine	99.2		P	80 - 120
Demeton	95.9		P	80 - 120
Diazinon	100		P	80 - 120
Disulfoton	95.2		P	80 - 120
EPTC	100		P	80 - 120
Ethion	96.0		P	80 - 120
Ethoprop	98.8		P	80 - 120
Fenamiphos	98.5		P	80 - 120
Fipronil	98.3		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fonofos	99.1		P	80 - 120
Hexazinone	99.0		P	80 - 120
Malathion	95.8		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	88.9		P	80 - 120
Molinate	101		P	80 - 120
Norflurazon	93.9		P	80 - 120
Parathion Ethyl	95.0		P	80 - 120
Parathion Methyl	98.8		P	80 - 120
Pendimethalin	98.0		P	80 - 120
Phorate	96.8		P	80 - 120
Prometon	98.7		P	80 - 120
Prometryn	98.6		P	80 - 120
Simazine	101		P	80 - 120
Terbufos	96.6		P	80 - 120
Terbutylazine	98.9		P	80 - 120

Reference Method: USGS O-2060-01

Run ID: A76921

Included Lab Sample IDs: 1901832

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	98.8	P/P	50 - 150
Acetaminophen	110	101	P/P	60 - 150
Bentazon	120	114	P/P	50 - 150
Carbamazepine	115	113	P/P	60 - 150
Diuron	113	114	P/P	60 - 150
Fenuron	102	104	P/P	60 - 150
Fluridone	114	122	P/P	60 - 160
Imidacloprid	99.6	102	P/P	60 - 150
Linuron	106	104	P/P	60 - 150
MCPP	96.4	95.6	P/P	50 - 150
Primidone	102	104	P/P	60 - 150
Triclopyr	95.2	98.0	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76936

Included Lab Sample IDs: 1901833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	95.6	94.4	P/P	90 - 110
Nickel	95.2	94.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A77049

Included Lab Sample IDs: 1901833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	92.6	98.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77072

Included Lab Sample IDs: 1901803, 1901806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	94.9	95.8	P/P	90 - 110
Chloride	97.0	96.2	P/P	90 - 110
Sulfate	101	94.6	P/P	90 - 110
Sulfate	96.3	95.2	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				2.64	
EPA 200.7 Rev. 4.4	Calcium	105	106 96.6			0.177
	Iron	106	105 105 105			0.155
	Magnesium	105	105 104			0.936
	Potassium	100	101 99.6 102			0.737
	Sodium	105	106 99.0			0.0617
	Zinc	101	99.3 98.4 100			0.922
EPA 200.8 Rev. 5.4	Arsenic	99.1	98.5 97.5 97.8			1.06
	Cadmium	97.6	103 101 102			2.17
	Chromium	92.7	93.5 93.6 89.9			0.187
	Copper	94.3	93.8 93.1 93.7			0.688
	Lead	96.3	100 99.1 101			1.19
	Nickel	96.2	95.5 94.8 95.1			0.774
	Silver	94.4	94.9 96.0 92.3			1.12
EPA 300.0 Rev. 2.1	Chloride	102	101 106		0.814	
	Chloride	96.8	96.6		2.85	
	Sulfate	97.6	95.2 100		1.08	
	Sulfate	92.5			2.75	
EPA 350.1 Rev. 2.0	Ammonia-N	98.9	102 101			0.431
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.3	102 91.9			7.39
EPA 353.2 Rev. 2.0	NO2NO3-N	101	95.7 100			4.42

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 365.1 Rev. 2.0	Total-P	94.3		99.4	101			1.01
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.1		95.8	96.5			0.509
EPA 8270D	Acetochlor	92.7	86.9	100	101	6.48		0.235
	Alachlor	90.4	87.6	104	106	3.09		1.81
	Aldrin	50.4	47.8	43.4		5.30		
	Alpha-BHC	92.6	85.7	63.8		7.67		
	Alpha-Chlordane	90.5	87.2	61.3		3.71		
	Ametryn	107	96.7	145	147	10.3		0.894
	Atrazine	98.8	97.8	103	103	0.989		0.0496
	Atrazine Desethyl	70.8	58.2	71.3	47.6	19.5		39.9
	Azinphos Methyl	145	114	161	163	24.2		1.49
	Beta-BHC	105	97.4	76.9		7.67		
	Bromacil	70.5	72.4	89.2	90.4	2.61		1.37
	Butylate	64.7	52.2	55.3	52.1	21.3		5.99
	Carbophenothion	88.4	86.2	126		2.59		
	Chlorothalonil	84.8	102	181		18.6		
	Chlorpyrifos Ethyl	91.5	85.9	89.5	86.6	6.36		3.24
	Chlorpyrifos Methyl	96.5	84.4	93.0	96.5	13.3		3.69
	Cyanazine	107	93.6	98.9	103	13.3		4.41
	Cypermethrin	92.4	106	143		13.5		
	DDD-p,p'	99.9	102	72.3		1.71		
	DDE-p,p'	89.4	88.0	57.8		1.58		
	DDT-p,p'	87.2	88.9	63.3		1.92		
	Delta-BHC	128	116	89.6		9.82		
	Demeton	98.8	81.1	103	106	19.6		2.49
	Diazinon	93.0	87.2	107	108	6.47		1.15
	Dicofol	70.3	68.7	13.8		2.25		
	Dieldrin	96.5	91.1	64.9		5.77		
	Disulfoton	89.1	71.5	89.8	92.3	21.9		2.69
	Endosulfan I	92.5	94.0	77.2		1.64		
	Endosulfan II	99.9	104	90.3		3.85		
	Endosulfan Sulfate	99.6	102	92.5		2.80		
	Endrin	93.6	90.0	72.9		3.99		
	Endrin Aldehyde	96.9	91.7	58.8		5.51		
	Endrin Ketone	87.3	89.5	101		2.50		
	EPTC	63.8	50.8	52.7	52.7	22.6		0.0211
	Ethion	94.8	92.9	100	101	2.03		1.10
	Ethoprop	97.8	81.4	112	116	18.3		3.38
	Fenamiphos	106	92.4	94.1	98.0	13.2		4.01
	Fipronil	92.6	93.9	91.8	92.3	1.43		0.514
	Fipronil Sulfide	86.4	89.1	79.8	81.1	3.12		1.65
	Fipronil Sulfone	75.6	83.6	66.4	68.4	9.97		3.02
	Fonofos	91.9	76.5	104	104	18.3		0.396
	Gamma-BHC	96.7	87.2	71.1		10.4		
	Gamma-Chlordane	90.1	88.8	62.8		1.45		
	Heptachlor	81.2	82.7	57.9		1.88		
	Heptachlor Epoxide	88.4	86.6	73.8		2.11		
	Hexazinone	88.5	89.8	96.3	97.5	1.41		1.09
	Malathion	103	95.9	101	104	7.00		2.82
	Metalaxyl	87.0	72.5	90.4	90.3	18.2		0.142
	Methoxychlor	93.9	94.1	73.1		0.213		
	Metolachlor	91.3	90.2	99.1	98.3	1.25		0.769
	Metribuzin	120	98.5	116	114	19.5		1.94
	Mevinphos	97.7	74.1	108	111	27.6		2.86

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Mirex	75.9	75.5	48.2		0.453	
	Molinate	68.7	57.1	66.3	65.2	18.5	1.65
	Norflurazon	92.1	86.4	87.5	87.3	6.39	0.258
	Parathion Ethyl	95.3	95.5	101	100	0.125	1.06
	Parathion Methyl	103	94.8	108	109	8.30	0.524
	Pendimethalin	90.2	89.1	98.3	98.6	1.25	0.210
	Permethrin	85.4	95.3	91.9		11.0	
	Phorate	115	83.1	115	109	32.0	5.40
	Prometon	102	85.8	117	116	16.8	0.593
	Prometryn	102	90.4	91.6	90.6	12.4	1.07
	Simazine	97.3	92.2	93.4	98.3	5.38	4.32
	Terbufos	91.6	75.5	107	106	19.2	0.876
	Terbuthylazine	92.4	91.7	99.4	97.9	0.753	1.58
	Trifluralin	95.6	90.7	112		5.28	
EPA 8321B	Glyphosate	91.2		101	97.0		4.44
	Pyraclostrobin	47.2		89.6	101		11.8
	Sucralose	79.3		94.3	75.7		19.4
SM 2120 B	Color (true)					1.55	
SM 2320 B-97	Total Alkalinity	104				0.218	
SM 2540 C-97	TDS					3.14	
SM 4500 F-C-97	Fluoride	97.1		101	105		2.42
SM 5310 B-00	Organic Carbon	94.7		90.0	94.0		2.71
USGS O-2060-01	2,4-D	90.0		98.6	131		2.71
	Acetaminophen	119		119	126		5.38
	Bentazon	71.6		36.8	41.0		4.39
	Carbamazepine	127		76.8	92.0		18.0
	Diuron	129		62.4	74.0		14.1
	Fenuron	111					4.58
	Fluridone	127					10.3
	Imidacloprid	110		144	177		15.9
	Linuron	117		91.0	104		12.9
	MCPP	101		72.0	75.4		4.61
	Primidone	112		79.2	94.4		17.5
	Triclopyr	101		84.8	85.8		1.17

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1901803, 1901806
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1901833
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1901833
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1901803, 1901806
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1901803, 1901806
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1901804, 1901807
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1901804, 1901807
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1901804, 1901807

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1901804, 1901807
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1901805, 1901808
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1901834
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1901835
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1901832
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1901832
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1901832
SM 2120 B / E31780	True Color measured at 450 nm	1901803, 1901806
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1901803, 1901806
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1901803, 1901806
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1901803, 1901806
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1901803, 1901806
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1901804, 1901807
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1901832
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1901832

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	05/26/2017			05/26/2017 15:03	Sima Feizi	1901803, 1901806
EPA 200.7 Rev. 4.4	05/26/2017	05/30/2017	Elliott D. Healy	06/03/2017	Betina Topolski	1901833
EPA 200.8 Rev. 5.4	05/26/2017	05/30/2017	Elliott D. Healy	06/06/2017	Robert K Palmer	1901833
	05/26/2017	05/30/2017	Elliott D. Healy	06/07/2017	Robert K Palmer	1901833
	05/26/2017	06/12/2017	Elliott D. Healy	06/13/2017	Robert K Palmer	1901833
EPA 300.0 Rev. 2.1	05/26/2017			06/13/2017	Julia Storbeck	1901803, 1901806
EPA 350.1 Rev. 2.0	05/26/2017			06/01/2017	Julie Michelle Frank	1901804, 1901807
EPA 351.2 Rev. 2.0	05/26/2017	05/30/2017	Adrian Shelby	06/01/2017	Joseph Suarez	1901804, 1901807
EPA 353.2 Rev. 2.0	05/26/2017			05/30/2017	Beverly Y. Sanders	1901804, 1901807
EPA 365.1 Rev. 2.0	05/26/2017	05/30/2017	Adrian Shelby	06/01/2017	Lipi Saha	1901804, 1901807
EPA 365.1 Rev. 2.0 dissolved	05/26/2017			05/26/2017 14:46	Anthony C. Onicha	1901805
	05/26/2017			05/26/2017 15:23	Anthony C. Onicha	1901808
EPA 8270D	05/26/2017	05/26/2017	Fe-Val Siddell	06/01/2017	Marek Topolski	1901835
	05/26/2017	05/26/2017	Fe-Val Siddell	06/02/2017	Vandana T. Nagar	1901834
EPA 8321B	05/26/2017	05/26/2017	Fe-Val Siddell	05/31/2017	Juyoung Kim	1901832
	05/26/2017	05/26/2017	Mohammad Ghaffari	05/26/2017	Mohammad Ghaffari	1901832
	05/26/2017	05/27/2017	Mohammad Ghaffari	05/28/2017	Mohammad Ghaffari	1901832
SM 2120 B	05/26/2017			05/26/2017 14:51	Tanya Welborn	1901803
	05/26/2017			05/26/2017 14:52	Tanya Welborn	1901806
SM 2320 B-97	05/26/2017			05/31/2017	Dale L. Simmons	1901803, 1901806
SM 2540 C-97	05/26/2017			05/31/2017	Yijie Li	1901803, 1901806
SM 2540 D-97	05/26/2017			05/31/2017	Yijie Li	1901803, 1901806
SM 4500 F-C-97	05/26/2017			05/31/2017	Dale L. Simmons	1901803, 1901806
SM 5310 B-00	05/26/2017			05/31/2017	Julie Michelle Frank	1901804, 1901807
USGS O-2060-01	05/26/2017	05/31/2017	Hoor Shaik	06/02/2017	Juyoung Kim	1901832