

Chemical Analysis Report

SE-DIST-2017-07-18-01

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

Event Description: **SMP-G2 Jupiter Run**
Request ID: **RQ-2017-06-19-19**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 10-AUG-2017 11:45

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored rectangular background.

Case Narrative

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

Results for the following analytical groups are included in this report: 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: HENDERSON POND

Collection Date/Time: 07/17/2017 12:15

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1913897	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P328709	
	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P328740	
		Sulfate	2.9		mg SO4/L	P328741	
	SM 2120 B	Color (true)	150		PCU	P328699	
	SM 2320 B-97	Total Alkalinity	4.5		mg CaCO3/L	P328815	
	SM 2540 C-97	TDS	142	A	mg/L	P329277	
	SM 2540 D-97	TSS	3	IA	mg/L	P329293	
	SM 4500 F-C-97	Fluoride	0.056	I	mg F/L	P328817	
1913898	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P328884	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P328715	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P328768	MS
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P328753	
	SM 5310 B-00	Organic Carbon	24		mg C/L	P328974	
1913899	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P328691	
1913901	EPA 8321B	Glyphosate**	0.50	U	ug/L	P328648	
		Pyraclostrobin**	0.0020	U	ug/L	P328371	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P328669	
		Diuron	8.0E-04	U	ug/L	P328669	
		Fenuron	0.0080	U	ug/L	P328669	
		Imidacloprid	8.0E-04	U	ug/L	P328669	
		Bentazon	0.0030	I	ug/L	P328669	
		Linuron	0.0040	U	ug/L	P328669	
		Acetaminophen**	0.0080	U	ug/L	P328669	
		MCP	0.0020	U	ug/L	P328669	
		Carbamazepine**	4.0E-04	U	ug/L	P328669	
		Triclopyr**	0.0040	U	ug/L	P328669	
		Primidone**	0.0040	U	ug/L	P328669	
		Fluridone**	4.0E-04	U	ug/L	P328669	
1913902	EPA 8270D	Aldrin	4.5	U	ng/L	P328810	
		Alpha-BHC	2.2	U	ng/L	P328810	
		Beta-BHC	4.5	U	ng/L	P328810	
		Delta-BHC	4.5	U	ng/L	P328810	
		Gamma-BHC	4.5	U	ng/L	P328810	
		Carbophenothion	4.5	U	ng/L	P328810	RPD
		Chlorothalonil	2.2	UJ	ng/L	P328810	CCV
		Cypermethrin	22	U	ng/L	P328810	
		DDD-p,p'	2.2	U	ng/L	P328810	
		DDE-p,p'	3.4	U	ng/L	P328810	
		DDT-p,p'	3.4	U	ng/L	P328810	
		Dieldrin	4.5	U	ng/L	P328810	
		Endosulfan I	4.5	U	ng/L	P328810	
		Endosulfan II	4.5	U	ng/L	P328810	
		Endosulfan Sulfate	2.2	U	ng/L	P328810	

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1913902	EPA 8270D	Endrin	2.2	U	ng/L	P328810	
		Endrin Aldehyde	2.2	U	ng/L	P328810	
		Heptachlor	1.7	U	ng/L	P328810	
		Heptachlor Epoxide	2.2	U	ng/L	P328810	
		Methoxychlor	4.5	U	ng/L	P328810	
		Mirex	2.2	U	ng/L	P328810	
		Permethrin	11	U	ng/L	P328810	
		Trifluralin	1.1	U	ng/L	P328810	
		Alpha-Chlordane	1.1	U	ng/L	P328810	
		Gamma-Chlordane	1.1	U	ng/L	P328810	
		Endrin Ketone	2.2	U	ng/L	P328810	
		Dicofol	34	UJ	ng/L	P328810	CCV, RPD
		Chlordane**	2.8	U	ng/L	P328810	
		Toxaphene**	14	U	ng/L	P328810	
1913903	EPA 8270D						
		Alachlor	0.26	U	ng/L	P329016	
		Ametryn	0.48	I	ng/L	P329016	
		Atrazine	7.7		ng/L	P329016	
		Atrazine Desethyl	1.9	I	ng/L	P329016	
		Azinphos Methyl	2.3	U	ng/L	P329016	
		Bromacil	0.52	U	ng/L	P329016	
		Butylate	0.41	U	ng/L	P329016	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P329016	
		Chlorpyrifos Methyl	0.10	U	ng/L	P329016	
		Demeton	2.1	U	ng/L	P329016	RPD
		Diazinon	0.13	U	ng/L	P329016	MS, RPD
		Disulfoton	0.34	U	ng/L	P329016	RPD
		EPTC	1.3	U	ng/L	P329016	
		Ethion	0.16	U	ng/L	P329016	
		Ethoprop	0.10	U	ng/L	P329016	MS, RPD
		Fenamiphos	0.26	U	ng/L	P329016	
		Fipronil	0.26	U	ng/L	P329016	
		Fipronil Sulfide	0.16	U	ng/L	P329016	
		Fipronil Sulfone	0.16	U	ng/L	P329016	
		Hexazinone	0.52	U	ng/L	P329016	
		Malathion	0.36	U	ng/L	P329016	
		Metribuzin	0.21	U	ng/L	P329016	MS, RPD
		Mevinphos	0.52	U	ng/L	P329016	RPD
		Molinate	0.31	U	ng/L	P329016	RPD
		Norflurazon	0.52	U	ng/L	P329016	
		Pendimethalin	1.6	U	ng/L	P329016	
		Phorate	0.26	U	ng/L	P329016	RPD
		Prometon	0.93	U	ng/L	P329016	
		Prometryn	0.21	U	ng/L	P329016	
		Simazine	0.52	U	ng/L	P329016	
		Terbufos	0.10	U	ng/L	P329016	MS, RPD

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1913903	EPA 8270D	Terbutylazine	0.44	U	ng/L	P329016	MS, RPD
		Fonofos	0.21	U	ng/L	P329016	
		Metalaxyl	0.21	U	ng/L	P329016	
		Metolachlor	0.26	U	ng/L	P329016	
		Acetochlor	0.26	U	ng/L	P329016	
		Cyanazine	0.52	U	ng/L	P329016	RPD
		Parathion Ethyl	0.26	U	ng/L	P329016	
		Parathion Methyl	0.26	U	ng/L	P329016	
1913904	EPA 200.7 Rev. 4.4	Calcium	4.86		mg/L	P328713	
		Iron	79	I	ug/L	P328713	
		Magnesium	2.89		mg/L	P328713	
		Potassium	0.57	I	mg/L	P328713	
		Sodium	25.0		mg/L	P328713	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P328713	
		Arsenic	0.69		ug/L	P328713	
		Cadmium	0.020	U	ug/L	P328713	
		Chromium	0.40	U	ug/L	P328713	
		Copper	0.52	I	ug/L	P328713	
		Lead	0.65		ug/L	P328713	
		Nickel	0.20	U	ug/L	P328713	
		Silver	0.010	U	ug/L	P328713	

Ref. Method and Comment:

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

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

EPA 8270D: MS accuracy for Atrazine, Fipronil, Fipronil Sulfide, and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 08/08/2017.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P328709

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P328713

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328713

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
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328740

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328741

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328884

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328715

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328768

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328753

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328691

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P328810

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
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 8270D
Batch ID: P329016

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P329016

Component	Result	Code	Units
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P328810

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B
Batch ID: P328371

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P328648

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: SM 2120 B
Batch ID: P328699

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P328815

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
 Batch ID: P329277

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
 Batch ID: P329293

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P328817

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P328974

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

Reference Method: USGS O-2060-01
 Batch ID: P328669

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPD	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: P328713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	107		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	96.9		P	85 - 115
Sodium	99.2		P	85 - 115
Zinc	100		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P328713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	99.7		P	85 - 115
Chromium	98.6		P	85 - 115
Copper	96.8		P	85 - 115
Lead	94.9		P	85 - 115
Nickel	99.6		P	85 - 115
Silver	96.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P328740

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P328741

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P328884

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P328715

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P328768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P328753

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P328691

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P328810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	55.9	51.6	P/P	26 - 88.0
Alpha-BHC	90.7	84.5	P/P	63 - 114
Alpha-Chlordane	91.1	83.6	P/P	56 - 117
Beta-BHC	106	105	P/P	57 - 138
Carbophenothion	102	86.3	P/P	36 - 148
Chlorothalonil	40.9	42.8	P/P	26 - 173
Cypermethrin	85.1	84.9	P/P	42 - 159
DDD-p,p'	103	91.9	P/P	62 - 126
DDE-p,p'	95.5	85.6	P/P	53 - 115
DDT-p,p'	95.0	87.3	P/P	54 - 117
Delta-BHC	113	100	P/P	68 - 158
Dicofol	65.3	69.1	P/P	25 - 114
Dieldrin	96.8	91.4	P/P	59 - 126
Endosulfan I	94.5	85.8	P/P	62 - 138
Endosulfan II	99.0	84.1	P/P	61 - 150
Endosulfan Sulfate	94.9	85.9	P/P	63 - 132
Endrin	101	102	P/P	49 - 148
Endrin Aldehyde	102	89.7	P/P	50 - 144
Endrin Ketone	97.7	90.3	P/P	66 - 122
Gamma-BHC	96.5	97.9	P/P	60 - 137
Gamma-Chlordane	95.1	85.9	P/P	54 - 113
Heptachlor	79.5	73.0	P/P	43 - 104
Heptachlor Epoxide	94.6	87.3	P/P	64 - 118
Methoxychlor	107	98.6	P/P	63 - 129
Mirex	81.9	76.6	P/P	39 - 93.0
Permethrin	93.5	86.4	P/P	51 - 123
Trifluralin	149	139	P/P	35 - 187

Reference Method: EPA 8270D
Batch ID: P329016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	88.8	92.5	P/P	78 - 118
Alachlor	88.5	92.0	P/P	77 - 119
Ametryn	83.4	80.8	P/P	61 - 136
Atrazine	96.9	92.4	P/P	73 - 120
Atrazine Desethyl	80.2	84.1	P/P	16 - 122
Azinphos Methyl	119	126	P/P	69 - 186
Bromacil	84.1	92.1	P/P	40 - 125
Butylate	42.0	51.3	P/P	32 - 87.0
Chlorpyrifos Ethyl	93.1	103	P/P	53 - 110
Chlorpyrifos Methyl	89.4	96.5	P/P	31 - 119
Cyanazine	121	123	P/P	36 - 224
Demeton	72.2	82.9	P/P	39 - 122
Diazinon	87.3	92.0	P/P	75 - 119
Disulfoton	79.4	80.0	P/P	42 - 139
EPTC	44.2	51.1	P/P	33 - 96.0
Ethion	96.9	103	P/P	63 - 127
Ethoprop	67.5	74.2	P/P	65 - 107
Fenamiphos	90.2	102	P/P	64 - 137
Fipronil	78.1	88.1	P/P	60 - 126
Fipronil Sulfide	76.3	93.2	P/P	58 - 124

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P329016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Sulfone	80.0	92.6	P/P	57 - 126
Fonofos	80.4	87.2	P/P	65 - 111
Hexazinone	86.3	88.9	P/P	46 - 151
Malathion	102	107	P/P	68 - 132
Metalaxyl	85.8	87.0	P/P	51 - 132
Metolachlor	89.5	92.8	P/P	78 - 119
Metribuzin	112	120	P/P	64 - 138
Mevinphos	67.9	77.9	P/P	34 - 128
Molinate	52.1	63.7	P/P	44 - 101
Norflurazon	84.9	93.0	P/P	63 - 129
Parathion Ethyl	85.2	85.4	P/P	80 - 109
Parathion Methyl	93.0	97.0	P/P	74 - 125
Pendimethalin	86.7	83.7	P/P	48 - 134
Phorate	80.3	67.9	P/P	52 - 119
Prometon	90.5	90.0	P/P	69 - 124
Prometryn	89.2	90.8	P/P	66 - 124
Simazine	102	89.6	P/P	61 - 134
Terbufos	74.7	80.7	P/P	58 - 115
Terbutylazine	91.9	98.2	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P328810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	87.5	82.5	P/P	48 - 121
Toxaphene	98.6	88.3	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P328371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	88.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P328648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	123		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P328815

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P328817

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P328974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.9		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P328669

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	91.9		P	40 - 150
Acetaminophen	78.9		P	30 - 150
Bentazon	85.8		P	40 - 150
Carbamazepine	96.7		P	40 - 150
Diuron	102		P	40 - 150
Fenuron	90.5		P	40 - 150
Fluridone	91.9		P	40 - 150
Imidacloprid	92.6		P	40 - 160
Linuron	92.4		P	40 - 150
MCP	76.9		P	40 - 150
Primidone	99.6		P	40 - 150
Triclopyr	67.3		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P328713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913450	Calcium	100		P	80 - 120
1913450	Iron	108		P	80 - 120
1913450	Magnesium	103		P	80 - 120
1913450	Potassium	95.1		P	80 - 120
1913450	Sodium	100		P	80 - 120
1913450	Zinc	102		P	80 - 120
1913904	Calcium	107		P	80 - 120
1913904	Iron	106	107	P/P	80 - 120
1913904	Magnesium	105	107	P/P	80 - 120
1913904	Potassium	94.1	94.8	P/P	80 - 120
1913904	Sodium	101		P	80 - 120
1913904	Zinc	105	104	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913450	Arsenic	108		P	80 - 120
1913450	Cadmium	108		P	80 - 120
1913450	Chromium	99.7		P	80 - 120
1913450	Copper	102		P	80 - 120
1913450	Lead	101		P	80 - 120
1913450	Nickel	102		P	80 - 120
1913450	Silver	101		P	80 - 120
1913904	Arsenic	106	106	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913904	Cadmium	105	105	P/P	80 - 120
1913904	Chromium	99.2	99.3	P/P	80 - 120
1913904	Copper	103	102	P/P	80 - 120
1913904	Lead	99.8	99.3	P/P	80 - 120
1913904	Nickel	104	102	P/P	80 - 120
1913904	Silver	99.4	99.9	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914149	Chloride	94.3		P	90 - 110
1914152	Chloride	94.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328741

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914149	Sulfate	93.8		P	90 - 110
1914152	Sulfate	94.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914007	Ammonia-N	97.8	94.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913517	Kjeldahl Nitrogen	95.9	96.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913514	NO2NO3-N	93.0	88.5	P/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913516	Total-P	97.0	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913870	O-Phosphate-P	97.2	99.1	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P328810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915140	Aldrin	63.6	57.5	P/P	22 - 97.0
1915140	Alpha-BHC	89.3	82.0	P/P	43 - 132
1915140	Alpha-Chlordane	86.5	81.7	P/P	36 - 126
1915140	Beta-BHC	97.8	106	P/P	41 - 150
1915140	Carbophenothion	102	64.9	P/P	13 - 196
1915140	Chlorothalonil	85.0	104	P/P	10 - 266
1915140	Cypermethrin	87.3	96.3	P/P	37 - 161
1915140	DDD-p,p'	96.1	92.7	P/P	44 - 131
1915140	DDE-p,p'	91.0	83.6	P/P	32 - 127
1915140	DDT-p,p'	90.6	83.9	P/P	45 - 116
1915140	Delta-BHC	114	113	P/P	50 - 201
1915140	Dicofol	42.5	28.9	P/P	10 - 100
1915140	Dieldrin	91.5	82.0	P/P	39 - 142
1915140	Endosulfan I	100	82.7	P/P	51 - 139
1915140	Endosulfan II	88.0	90.5	P/P	49 - 155
1915140	Endosulfan Sulfate	86.8	87.8	P/P	54 - 136
1915140	Endrin	89.3	85.3	P/P	38 - 141
1915140	Endrin Aldehyde	88.3	79.0	P/P	14 - 152
1915140	Endrin Ketone	86.4	91.1	P/P	60 - 128
1915140	Gamma-BHC	97.6	93.5	P/P	48 - 157
1915140	Gamma-Chlordane	87.7	83.5	P/P	35 - 123
1915140	Heptachlor	73.1	64.9	P/P	25 - 112
1915140	Heptachlor Epoxide	92.5	85.4	P/P	48 - 125
1915140	Methoxychlor	94.0	90.4	P/P	52 - 127
1915140	Mirex	74.7	70.5	P/P	25 - 108
1915140	Permethrin	87.8	90.7	P/P	46 - 133
1915140	Trifluralin	161	165	P/P	29 - 254

Reference Method: EPA 8270D
Batch ID: P329016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914535	Acetochlor	82.4	94.7	P/P	74 - 123
1914535	Alachlor	78.9	97.3	P/P	73 - 124
1914535	Ametryn	92.4	113	P/P	56 - 149
1914535	Atrazine Desethyl	63.9	89.8	P/P	12 - 103
1914535	Azinphos Methyl	113	136	P/P	60 - 202
1914535	Bromacil	65.9	82.3	P/P	42 - 133
1914535	Butylate	33.6	42.7	P/P	10 - 85.0
1914535	Chlorpyrifos Ethyl	83.6	93.3	P/P	53 - 113
1914535	Chlorpyrifos Methyl	72.1	92.1	P/P	40 - 115
1914535	Cyanazine	67.3	149	P/P	22 - 210
1914535	Demeton	53.1	135	P/P	17 - 149
1914535	Diazinon	69.2	99.4	F/P	72 - 124
1914535	Disulfoton	64.8	92.9	P/P	43 - 139
1914535	EPTC	28.4	36.2	P/P	10 - 86.0
1914535	Ethion	95.2	87.6	P/P	65 - 131
1914535	Ethoprop	49.9	77.8	F/P	59 - 110
1914535	Fenamiphos	89.4	92.7	P/P	57 - 138
1914535	Fonofos	53.0	82.5	F/P	60 - 112
1914535	Hexazinone	76.9	83.8	P/P	69 - 142
1914535	Malathion	97.1	101	P/P	68 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P329016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914535	Metalaxyl	78.3	91.8	P/P	66 - 118
1914535	Metolachlor	82.9	97.6	P/P	71 - 124
1914535	Metribuzin	114	162	P/F	61 - 140
1914535	Mevinphos	47.0	71.0	P/P	38 - 130
1914535	Molinate	32.9	59.7	P/P	23 - 99.0
1914535	Norflurazon	65.5	85.4	P/P	39 - 139
1914535	Parathion Ethyl	77.9	81.9	P/P	75 - 111
1914535	Parathion Methyl	80.6	92.6	P/P	64 - 130
1914535	Pendimethalin	77.6	83.6	P/P	26 - 173
1914535	Phorate	45.0	84.3	P/P	43 - 127
1914535	Prometon	77.6	91.8	P/P	50 - 144
1914535	Prometryn	84.7	81.0	P/P	69 - 126
1914535	Simazine	96.5	113	P/P	51 - 152
1914535	Terbufos	50.0	85.6	F/P	54 - 125
1914535	Terbutylazine	82.9	86.4	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P328810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1915146	Chlordane	97.4	103	P/P	44 - 134
1915146	Toxaphene	106	123	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P328371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1912650	Pyraclostrobin	83.0	83.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P328648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913901	Glyphosate	114	119	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P328817

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914004	Fluoride	96.9	98.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P328974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913398	Organic Carbon	99.2		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P328669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913836	2,4-D	116	107	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P328669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913836	Acetaminophen	116	128	P/P	30 - 150
1913836	Bentazon	74.7	77.1	P/P	40 - 150
1913836	Carbamazepine	120	120	P/P	40 - 150
1913836	Diuron	100	108	P/P	40 - 150
1913836	Fenuron	81.1	91.9	P/P	40 - 150
1913836	Fluridone	92.4	100	P/P	40 - 150
1913836	Imidacloprid	130	143	P/P	40 - 160
1913836	Linuron	102	96.4	P/P	40 - 150
1913836	MCP	98.9	116	P/P	40 - 150
1913836	Primidone	100	118	P/P	40 - 150
1913836	Triclopyr	88.5	76.4	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P328709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913868	Turbidity	0.402	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P328713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913904	Calcium	0.585	Spike	P	0 - 20
1913904	Iron	1.20	Spike	P	0 - 20
1913904	Magnesium	1.32	Spike	P	0 - 20
1913904	Potassium	0.636	Spike	P	0 - 20
1913904	Sodium	0.806	Spike	P	0 - 20
1913904	Zinc	0.741	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P328713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913904	Arsenic	0.465	Spike	P	0 - 20
1913904	Cadmium	0.233	Spike	P	0 - 20
1913904	Chromium	0.0568	Spike	P	0 - 20
1913904	Copper	1.03	Spike	P	0 - 20
1913904	Lead	0.425	Spike	P	0 - 20
1913904	Nickel	1.01	Spike	P	0 - 20
1913904	Silver	0.530	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914149	Chloride	5.32	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328741

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914149	Sulfate	3.42	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914007	Ammonia-N	2.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913517	Kjeldahl Nitrogen	0.562	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913514	NO2NO3-N	4.96	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913516	Total-P	1.98	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913870	O-Phosphate-P	1.94	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P328810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915140	Aldrin	10.1	Spike	P	0 - 30
1915140	Alpha-BHC	8.41	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P328810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915140	Alpha-Chlordane	5.67	Spike	P	0 - 30
1915140	Beta-BHC	8.34	Spike	P	0 - 30
1915140	Carbophenothion	44.3	Spike	F	0 - 30
1915140	Chlorothalonil	19.7	Spike	P	0 - 30
1915140	Cypermethrin	9.78	Spike	P	0 - 30
1915140	DDD-p,p'	3.59	Spike	P	0 - 30
1915140	DDE-p,p'	8.38	Spike	P	0 - 30
1915140	DDT-p,p'	7.74	Spike	P	0 - 30
1915140	Delta-BHC	1.40	Spike	P	0 - 30
1915140	Dicofol	38.1	Spike	F	0 - 30
1915140	Dieldrin	11.0	Spike	P	0 - 30
1915140	Endosulfan I	18.9	Spike	P	0 - 30
1915140	Endosulfan II	2.82	Spike	P	0 - 30
1915140	Endosulfan Sulfate	1.16	Spike	P	0 - 30
1915140	Endrin	4.60	Spike	P	0 - 30
1915140	Endrin Aldehyde	11.2	Spike	P	0 - 30
1915140	Endrin Ketone	5.30	Spike	P	0 - 30
1915140	Gamma-BHC	4.33	Spike	P	0 - 30
1915140	Gamma-Chlordane	4.90	Spike	P	0 - 30
1915140	Heptachlor	12.0	Spike	P	0 - 30
1915140	Heptachlor Epoxide	7.99	Spike	P	0 - 30
1915140	Methoxychlor	3.88	Spike	P	0 - 30
1915140	Mirex	5.71	Spike	P	0 - 30
1915140	Permethrin	3.18	Spike	P	0 - 30
1915140	Trifluralin	2.03	Spike	P	0 - 30
LFB	Aldrin	8.03	LCS	P	0 - 30
LFB	Alpha-BHC	7.11	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.55	LCS	P	0 - 30
LFB	Beta-BHC	1.40	LCS	P	0 - 30
LFB	Carbophenothion	16.6	LCS	P	0 - 30
LFB	Chlorothalonil	4.63	LCS	P	0 - 30
LFB	Cypermethrin	0.258	LCS	P	0 - 30
LFB	DDD-p,p'	11.5	LCS	P	0 - 30
LFB	DDE-p,p'	10.9	LCS	P	0 - 30
LFB	DDT-p,p'	8.40	LCS	P	0 - 30
LFB	Delta-BHC	12.1	LCS	P	0 - 30
LFB	Dicofol	5.77	LCS	P	0 - 30
LFB	Dieldrin	5.75	LCS	P	0 - 30
LFB	Endosulfan I	9.65	LCS	P	0 - 30
LFB	Endosulfan II	16.3	LCS	P	0 - 30
LFB	Endosulfan Sulfate	9.96	LCS	P	0 - 30
LFB	Endrin	0.388	LCS	P	0 - 30
LFB	Endrin Aldehyde	12.6	LCS	P	0 - 30
LFB	Endrin Ketone	7.82	LCS	P	0 - 30
LFB	Gamma-BHC	1.50	LCS	P	0 - 30
LFB	Gamma-Chlordane	10.2	LCS	P	0 - 30
LFB	Heptachlor	8.52	LCS	P	0 - 30
LFB	Heptachlor Epoxide	8.02	LCS	P	0 - 30
LFB	Methoxychlor	8.47	LCS	P	0 - 30
LFB	Mirex	6.76	LCS	P	0 - 30
LFB	Permethrin	7.85	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P328810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Trifluralin	6.69	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P329016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914535	Acetochlor	14.0	Spike	P	0 - 30
1914535	Alachlor	20.9	Spike	P	0 - 30
1914535	Ametryn	20.0	Spike	P	0 - 30
1914535	Atrazine	3.68	Spike	P	0 - 30
1914535	Atrazine Desethyl	24.9	Spike	P	0 - 30
1914535	Azinphos Methyl	19.2	Spike	P	0 - 30
1914535	Bromacil	18.0	Spike	P	0 - 30
1914535	Butylate	23.9	Spike	P	0 - 30
1914535	Chlorpyrifos Ethyl	11.0	Spike	P	0 - 30
1914535	Chlorpyrifos Methyl	24.3	Spike	P	0 - 30
1914535	Cyanazine	75.6	Spike	F	0 - 30
1914535	Demeton	87.3	Spike	F	0 - 30
1914535	Diazinon	35.9	Spike	F	0 - 30
1914535	Disulfoton	35.7	Spike	F	0 - 30
1914535	EPTC	24.1	Spike	P	0 - 30
1914535	Ethion	8.35	Spike	P	0 - 30
1914535	Ethoprop	43.8	Spike	F	0 - 30
1914535	Fenamiphos	3.57	Spike	P	0 - 30
1914535	Fipronil	28.0	Spike	P	0 - 30
1914535	Fipronil Sulfide	16.0	Spike	P	0 - 30
1914535	Fipronil Sulfone	28.4	Spike	P	0 - 30
1914535	Fonofos	43.6	Spike	F	0 - 30
1914535	Hexazinone	8.62	Spike	P	0 - 30
1914535	Malathion	3.86	Spike	P	0 - 30
1914535	Metalaxyl	15.9	Spike	P	0 - 30
1914535	Metolachlor	15.7	Spike	P	0 - 30
1914535	Metribuzin	34.3	Spike	F	0 - 30
1914535	Mevinphos	40.6	Spike	F	0 - 30
1914535	Molinate	57.9	Spike	F	0 - 30
1914535	Norflurazon	26.4	Spike	P	0 - 30
1914535	Parathion Ethyl	4.96	Spike	P	0 - 30
1914535	Parathion Methyl	13.9	Spike	P	0 - 30
1914535	Pendimethalin	7.46	Spike	P	0 - 30
1914535	Phorate	60.8	Spike	F	0 - 30
1914535	Prometon	14.4	Spike	P	0 - 30
1914535	Prometryn	4.53	Spike	P	0 - 30
1914535	Simazine	16.1	Spike	P	0 - 30
1914535	Terbufos	52.5	Spike	F	0 - 30
1914535	Terbutylazine	4.14	Spike	P	0 - 30
LFB	Acetochlor	4.17	LCS	P	0 - 30
LFB	Alachlor	3.95	LCS	P	0 - 30
LFB	Ametryn	3.20	LCS	P	0 - 30
LFB	Atrazine	4.77	LCS	P	0 - 30
LFB	Atrazine Desethyl	4.76	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P329016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Azinphos Methyl	5.65	LCS	P	0 - 30
LFB	Bromacil	9.08	LCS	P	0 - 30
LFB	Butylate	19.9	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.81	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.64	LCS	P	0 - 30
LFB	Cyanazine	1.84	LCS	P	0 - 30
LFB	Demeton	13.8	LCS	P	0 - 30
LFB	Diazinon	5.18	LCS	P	0 - 30
LFB	Disulfoton	0.757	LCS	P	0 - 30
LFB	EPTC	14.4	LCS	P	0 - 30
LFB	Ethion	5.70	LCS	P	0 - 30
LFB	Ethoprop	9.54	LCS	P	0 - 30
LFB	Fenamiphos	12.1	LCS	P	0 - 30
LFB	Fipronil	12.1	LCS	P	0 - 30
LFB	Fipronil Sulfide	19.9	LCS	P	0 - 30
LFB	Fipronil Sulfone	14.6	LCS	P	0 - 30
LFB	Fonofos	8.03	LCS	P	0 - 30
LFB	Hexazinone	2.98	LCS	P	0 - 30
LFB	Malathion	5.22	LCS	P	0 - 30
LFB	Metalaxyl	1.43	LCS	P	0 - 30
LFB	Metolachlor	3.67	LCS	P	0 - 30
LFB	Metribuzin	7.33	LCS	P	0 - 30
LFB	Mevinphos	13.6	LCS	P	0 - 30
LFB	Molinate	20.1	LCS	P	0 - 30
LFB	Norflurazon	9.11	LCS	P	0 - 30
LFB	Parathion Ethyl	0.198	LCS	P	0 - 30
LFB	Parathion Methyl	4.19	LCS	P	0 - 30
LFB	Pendimethalin	3.43	LCS	P	0 - 30
LFB	Phorate	16.6	LCS	P	0 - 30
LFB	Prometon	0.530	LCS	P	0 - 30
LFB	Prometryn	1.82	LCS	P	0 - 30
LFB	Simazine	12.7	LCS	P	0 - 30
LFB	Terbufos	7.69	LCS	P	0 - 30
LFB	Terbuthylazine	6.67	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P328810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1915146	Chlordane	5.31	Spike	P	0 - 30
1915146	Toxaphene	15.0	Spike	P	0 - 30
LFB	Chlordane	5.95	LCS	P	0 - 30
LFB	Toxaphene	11.0	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P328371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1912650	Pyraclostrobin	0.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P328648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913901	Glyphosate	4.42	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P328699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914077	Color (true)	1.60	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P328815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914004	Total Alkalinity	0.118	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P329277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913897	TDS	0.707	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P328817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914004	Fluoride	1.04	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P328974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913398	Organic Carbon	0.125	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P328669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913836	2,4-D	7.78	Spike	P	0 - 30
1913836	Acetaminophen	10.4	Spike	P	0 - 30
1913836	Bentazon	3.14	Spike	P	0 - 30
1913836	Carbamazepine	0.384	Spike	P	0 - 30
1913836	Diuron	7.44	Spike	P	0 - 30
1913836	Fenuron	12.5	Spike	P	0 - 30
1913836	Fluridone	8.44	Spike	P	0 - 30
1913836	Imidacloprid	9.09	Spike	P	0 - 30
1913836	Linuron	6.04	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P328669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913836	MCP	15.6	Spike	P	0 - 30
1913836	Primidone	16.2	Spike	P	0 - 30
1913836	Triclopyr	14.7	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: 1913901
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	119	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.0	P	30 - 160
EPA 8321B	Diuron-d6	130	P	30 - 160
EPA 8321B	Diuron-d6	78.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	83.7	P	40 - 160
EPA 8321B	Primidone-d5	78.6	P	30 - 160
USGS O-2060-01	2,4-D-d3	133	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	119	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	93.0	P	30 - 160
USGS O-2060-01	Diuron-d6	130	P	30 - 160
USGS O-2060-01	Diuron-d6	78.5	P	30 - 160
USGS O-2060-01	Primidone-d5	78.6	P	30 - 160

Lab Sample ID: 1913902
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	64.3	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	42.0	P	32 - 103
EPA 8276	Decachlorobiphenyl	57.5	P	31 - 100

Lab Sample ID: 1913903
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	91.8	P	53 - 135
EPA 8270D	Simazine-d10	89.2	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A77784
Included Lab Sample IDs: 1913899

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A77784

Included Lab Sample IDs: 1913899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A77785

Included Lab Sample IDs: 1913901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	87.8	115	P/P	60 - 150

Reference Method: SM 2120 B

Run ID: A77788

Included Lab Sample IDs: 1913897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.8	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A77790

Included Lab Sample IDs: 1913897

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77800

Included Lab Sample IDs: 1913897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	101	P/P	90 - 110
Sulfate	96.9	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77806

Included Lab Sample IDs: 1913898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	96.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A77825

Included Lab Sample IDs: 1913904

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	95.7	95.2	P/P	90 - 110
Sodium	99.4	98.1	P/P	90 - 110
Zinc	101	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A77832
Included Lab Sample IDs: 1913897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A77832
Included Lab Sample IDs: 1913897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.0	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A77834
Included Lab Sample IDs: 1913898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A77838
Included Lab Sample IDs: 1913898

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A77856
Included Lab Sample IDs: 1913898

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A77875
Included Lab Sample IDs: 1913904

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	104	103	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	99.2	98.6	P/P	90 - 110
Copper	103	102	P/P	90 - 110
Lead	95.7	95.6	P/P	90 - 110
Nickel	102	101	P/P	90 - 110
Silver	97.6	97.9	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A77885
Included Lab Sample IDs: 1913898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	97.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A77931
Included Lab Sample IDs: 1913901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	105	102	P/P	70 - 160

Reference Method: EPA 8276
Run ID: A77976
Included Lab Sample IDs: 1913902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.7		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 8270D
Run ID: A78023
Included Lab Sample IDs: 1913902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.1		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	93.5		P	80 - 120
Beta-BHC	107		P	80 - 120
Carbophenothion	92.5		P	80 - 120
Chlorothalonil	74.1*		F	80 - 120
Cypermethrin	91.1		P	80 - 120
DDD-p,p'	97.2		P	80 - 120
DDE-p,p'	98.9		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	99.4		P	80 - 120
Dicofol	163*		F	80 - 120
Dieldrin	97.4		P	80 - 120
Endosulfan I	88.2		P	80 - 120
Endosulfan II	86.1		P	80 - 120
Endosulfan Sulfate	96.6		P	80 - 120
Endrin	92.9		P	80 - 120
Endrin Aldehyde	94.0		P	80 - 120
Endrin Ketone	99.4		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	99.0		P	80 - 120
Heptachlor	94.7		P	80 - 120
Heptachlor Epoxide	97.7		P	80 - 120
Methoxychlor	104		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	94.3		P	80 - 120
Trifluralin	89.4		P	80 - 120

Reference Method: USGS O-2060-01
Run ID: A78113
Included Lab Sample IDs: 1913901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	117	97.0	P/P	50 - 150
Acetaminophen	113	110	P/P	60 - 150
Bentazon	103	130	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A78113

Included Lab Sample IDs: 1913901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	121	106	P/P	60 - 150
Diuron	114	112	P/P	60 - 150
Fenuron	98.9	109	P/P	60 - 150
Fluridone	92.4	130	P/P	60 - 160
Imidacloprid	98.2	112	P/P	60 - 150
Linuron	116	118	P/P	60 - 150
MCPPP	99.8	101	P/P	50 - 150
Primidone	88.2	122	P/P	60 - 150
Triclopyr	73.1	87.1	P/P	50 - 150

Reference Method: EPA 8270D

Run ID: A78232

Included Lab Sample IDs: 1913903

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.7		P	80 - 120
Alachlor	99.9		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	94.5		P	80 - 120
Atrazine Desethyl	94.3		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	96.5		P	80 - 120
Chlorpyrifos Ethyl	94.7		P	80 - 120
Chlorpyrifos Methyl	93.8		P	80 - 120
Cyanazine	83.5		P	80 - 120
Demeton	97.5		P	80 - 120
Diazinon	101		P	80 - 120
Disulfoton	96.7		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	91.4		P	80 - 120
Ethoprop	96.4		P	80 - 120
Fenamiphos	96.6		P	80 - 120
Fipronil	93.9		P	80 - 120
Fipronil Sulfide	91.4		P	80 - 120
Fipronil Sulfone	91.9		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	97.8		P	80 - 120
Malathion	95.6		P	80 - 120
Metalaxyl	96.3		P	80 - 120
Metolachlor	99.9		P	80 - 120
Metribuzin	85.7		P	80 - 120
Mevinphos	97.5		P	80 - 120
Molinate	97.5		P	80 - 120
Norflurazon	93.1		P	80 - 120
Parathion Ethyl	94.2		P	80 - 120
Parathion Methyl	91.4		P	80 - 120
Pendimethalin	88.9		P	80 - 120
Phorate	98.3		P	80 - 120
Prometon	96.0		P	80 - 120
Prometryn	96.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
 Run ID: A78232
 Included Lab Sample IDs: 1913903

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Simazine	95.3		P	80 - 120
Terbufos	91.4		P	80 - 120
Terbutylazine	99.6		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
 Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
 Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							0.402	
EPA 200.7 Rev. 4.4	Calcium	102		100	107				0.585
	Iron	107		108	106	107			1.20
	Magnesium	108		103	105	107			1.32
	Potassium	96.9		95.1	94.1	94.8			0.636
	Sodium	99.2		100	101				0.806
	Zinc	100		102	105	104			0.741
EPA 200.8 Rev. 5.4	Arsenic	101		108	106	106			0.465
	Cadmium	99.7		108	105	105			0.233
	Chromium	98.6		99.7	99.2	99.3			0.0568
	Copper	96.8		102	103	102			1.03
	Lead	94.9		101	99.8	99.3			0.425
	Nickel	99.6		102	104	102			1.01
	Silver	96.3		101	99.4	99.9			0.530
EPA 300.0 Rev. 2.1	Chloride	99.1		94.3	94.2			5.32	
	Sulfate	98.1		93.8	94.1			3.42	
EPA 350.1 Rev. 2.0	Ammonia-N	104		97.8	94.3				2.42
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		95.9	96.9				0.562
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		93.0	88.5				4.96
EPA 365.1 Rev. 2.0	Total-P	97.6		97.0	99.1				1.98
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.9		97.2	99.1				1.94
EPA 8270D	Acetochlor	88.8	92.5	82.4	94.7		4.17		14.0
	Alachlor	88.5	92.0	78.9	97.3		3.95		20.9
	Aldrin	55.9	51.6	63.6	57.5		8.03		10.1
	Alpha-BHC	90.7	84.5	89.3	82.0		7.11		8.41
	Alpha-Chlordane	91.1	83.6	86.5	81.7		8.55		5.67
	Ametryn	83.4	80.8	92.4	113		3.20		20.0
	Atrazine	96.9	92.4				4.77		3.68
	Atrazine Desethyl	80.2	84.1	63.9	89.8		4.76		24.9
	Azinphos Methyl	119	126	113	136		5.65		19.2
	Beta-BHC	106	105	97.8	106		1.40		8.34
	Bromacil	84.1	92.1	65.9	82.3		9.08		18.0
	Butylate	42.0	51.3	33.6	42.7		19.9		23.9
	Carbophenothion	102	86.3	102	64.9		16.6		44.3
	Chlorothalonil	40.9	42.8	85.0	104		4.63		19.7
	Chlorpyrifos Ethyl	93.1	103	83.6	93.3		9.81		11.0
	Chlorpyrifos Methyl	89.4	96.5	72.1	92.1		7.64		24.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Cyanazine	121	123	67.3	149	1.84	75.6
	Cypermethrin	85.1	84.9	87.3	96.3	0.258	9.78
	DDD-p,p'	103	91.9	96.1	92.7	11.5	3.59
	DDE-p,p'	95.5	85.6	91.0	83.6	10.9	8.38
	DDT-p,p'	95.0	87.3	90.6	83.9	8.40	7.74
	Delta-BHC	113	100	114	113	12.1	1.40
	Demeton	72.2	82.9	53.1	135	13.8	87.3
	Diazinon	87.3	92.0	69.2	99.4	5.18	35.9
	Dicofol	65.3	69.1	42.5	28.9	5.77	38.1
	Dieldrin	96.8	91.4	91.5	82.0	5.75	11.0
	Disulfoton	79.4	80.0	64.8	92.9	0.757	35.7
	Endosulfan I	94.5	85.8	100	82.7	9.65	18.9
	Endosulfan II	99.0	84.1	88.0	90.5	16.3	2.82
	Endosulfan Sulfate	94.9	85.9	86.8	87.8	9.96	1.16
	Endrin	101	102	89.3	85.3	0.388	4.60
	Endrin Aldehyde	102	89.7	88.3	79.0	12.6	11.2
	Endrin Ketone	97.7	90.3	86.4	91.1	7.82	5.30
	EPTC	44.2	51.1	28.4	36.2	14.4	24.1
	Ethion	96.9	103	95.2	87.6	5.70	8.35
	Ethoprop	67.5	74.2	49.9	77.8	9.54	43.8
	Fenamiphos	90.2	102	89.4	92.7	12.1	3.57
	Fipronil	78.1	88.1			12.1	28.0
	Fipronil Sulfide	76.3	93.2			19.9	16.0
	Fipronil Sulfone	80.0	92.6			14.6	28.4
	Fonofos	80.4	87.2	53.0	82.5	8.03	43.6
	Gamma-BHC	96.5	97.9	97.6	93.5	1.50	4.33
	Gamma-Chlordane	95.1	85.9	87.7	83.5	10.2	4.90
	Heptachlor	79.5	73.0	73.1	64.9	8.52	12.0
	Heptachlor Epoxide	94.6	87.3	92.5	85.4	8.02	7.99
	Hexazinone	86.3	88.9	76.9	83.8	2.98	8.62
	Malathion	102	107	97.1	101	5.22	3.86
	Metalaxyl	85.8	87.0	78.3	91.8	1.43	15.9
	Methoxychlor	107	98.6	94.0	90.4	8.47	3.88
	Metolachlor	89.5	92.8	82.9	97.6	3.67	15.7
	Metribuzin	112	120	114	162	7.33	34.3
	Mevinphos	67.9	77.9	47.0	71.0	13.6	40.6
	Mirex	81.9	76.6	74.7	70.5	6.76	5.71
	Molinate	52.1	63.7	32.9	59.7	20.1	57.9
	Norflurazon	84.9	93.0	65.5	85.4	9.11	26.4
	Parathion Ethyl	85.2	85.4	77.9	81.9	0.198	4.96
	Parathion Methyl	93.0	97.0	80.6	92.6	4.19	13.9
	Pendimethalin	86.7	83.7	77.6	83.6	3.43	7.46
	Permethrin	93.5	86.4	87.8	90.7	7.85	3.18
	Phorate	80.3	67.9	45.0	84.3	16.6	60.8
	Prometon	90.5	90.0	77.6	91.8	0.530	14.4
	Prometryn	89.2	90.8	84.7	81.0	1.82	4.53
	Simazine	102	89.6	96.5	113	12.7	16.1
	Terbufos	74.7	80.7	50.0	85.6	7.69	52.5
	Terbutylazine	91.9	98.2	82.9	86.4	6.67	4.14
	Trifluralin	149	139	161	165	6.69	2.03
EPA 8276	Chlordane	87.5	82.5	97.4	103	5.95	5.31
	Toxaphene	98.6	88.3	106	123	11.0	15.0
EPA 8321B	Glyphosate	123		114	119		4.42
	Pyraclostrobin	88.0		83.0	83.0		0.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
SM 2120 B	Color (true)					1.60	
SM 2320 B-97	Total Alkalinity	102				0.118	
SM 2540 C-97	TDS					0.707	
SM 4500 F-C-97	Fluoride	95.9	96.9	98.2			1.04
SM 5310 B-00	Organic Carbon	96.9	99.2				0.125
USGS O-2060-01	2,4-D	91.9	116	107			7.78
	Acetaminophen	78.9	116	128			10.4
	Bentazon	85.8	74.7	77.1			3.14
	Carbamazepine	96.7	120	120			0.384
	Diuron	102	100	108			7.44
	Fenuron	90.5	81.1	91.9			12.5
	Fluridone	91.9	92.4	100			8.44
	Imidacloprid	92.6	130	143			9.09
	Linuron	92.4	102	96.4			6.04
	MCPP	76.9	98.9	116			15.6
	Primidone	99.6	100	118			16.2
	Triclopyr	67.3	88.5	76.4			14.7

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1913897
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1913904
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1913904
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1913897
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1913897
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1913898
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1913898
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1913898
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1913898
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1913899
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1913902
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1913903
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1913902
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1913901
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1913901
SM 2120 B / E31780	True Color measured at 450 nm	1913897
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1913897
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1913897
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1913897
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1913897
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1913898
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1913901

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1913901

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	07/18/2017			07/18/2017 15:12	DeAsia Armster	1913897
EPA 200.7 Rev. 4.4	07/18/2017	07/18/2017	Elliott D. Healy	07/19/2017	Betina Topolski	1913904
EPA 200.8 Rev. 5.4	07/18/2017	07/18/2017	Elliott D. Healy	07/21/2017	Nadine Brooks	1913904
EPA 300.0 Rev. 2.1	07/18/2017			07/18/2017	Julia Storbeck	1913897
EPA 350.1 Rev. 2.0	07/18/2017			07/20/2017	Sofia Elnemr	1913898
EPA 351.2 Rev. 2.0	07/18/2017	07/19/2017	Adrian Shelby	07/20/2017	Joseph Suarez	1913898
EPA 353.2 Rev. 2.0	07/18/2017			07/19/2017	Beverly Y. Sanders	1913898
EPA 365.1 Rev. 2.0	07/18/2017	07/19/2017	Adrian Shelby	07/20/2017	Lipi Saha	1913898
EPA 365.1 Rev. 2.0 dissolved	07/18/2017			07/18/2017 14:19	Ping Hua	1913899
EPA 8270D	07/18/2017	07/21/2017	Fe-Val Siddell	07/25/2017	Vandana T. Nagar	1913902
	07/18/2017	07/24/2017	John Kaba	08/01/2017	Irina Carbone	1913903
EPA 8276	07/18/2017	07/21/2017	Fe-Val Siddell	07/25/2017	John P. Burgos	1913902
EPA 8321B	07/18/2017	07/18/2017	Julie Michelle Frank	07/18/2017	Julie Michelle Frank	1913901
	07/18/2017	07/21/2017	Julie Michelle Frank	07/21/2017	Julie Michelle Frank	1913901
SM 2120 B	07/18/2017			07/18/2017 15:14	Tanya Welborn	1913897
SM 2320 B-97	07/18/2017			07/20/2017	Dale L. Simmons	1913897
SM 2540 C-97	07/18/2017			07/21/2017	Yijie Li	1913897
SM 2540 D-97	07/18/2017			07/21/2017	Yijie Li	1913897
SM 4500 F-C-97	07/18/2017			07/20/2017	Dale L. Simmons	1913897
SM 5310 B-00	07/18/2017			07/21/2017	Ping Hua	1913898
USGS O-2060-01	07/18/2017	07/20/2017	Hoor Shaik	07/29/2017	Juyoung Kim	1913901