Chemical Analysis Report

NW-DIST-2017-10-26-01

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

Event Description: **South Milton Run WBID 534 18 10G 11A 260 537A 833 635**
Request ID: **RQ-2017-10-23-16**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
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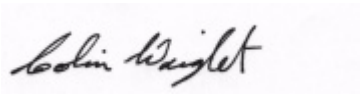
Certified by: Colin Wright, Program Administrator

Date Certified: 29-NOV-2017 10:26



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: White Oak Bayou @ End of Aegean Dr. **Collection Date/Time: 10/25/2017 10:05**

Field ID: G4NW0387 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940088	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P334126	
	SM 2320 B-97	Total Alkalinity	7.6		mg CaCO3/L	P334233	
	SM 2540 D-97	TSS	2	I	mg/L	P334962	
	SM 4500 F-C-97	Fluoride	0.056	I	mg F/L	P334460	
1940089	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P334570	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P334450	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P334366	
	EPA 365.1 Rev. 2.0	Total-P	0.01		mg P/L	P334204	
	SM 5310 B-00	Organic Carbon	9.3		mg C/L	P334707	
1940090	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P334134	

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

Sample Location: Jakes Bayou abv Robinson Point Rd. **Collection Date/Time: 10/25/2017 10:20**

Field ID: G4NW0394 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940076	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P334126	
	EPA 300.0 Rev. 2.1	Chloride	1.6E+03		mg Cl/L	P334434	
		Sulfate	210		mg SO4/L	P334437	
	SM 2120 B	Color (true)	73		PCU	P334150	
	SM 2320 B-97	Total Alkalinity	8.2		mg CaCO3/L	P334233	
	SM 2540 C-97	TDS	2.74E+03	A	mg/L	P334418	
	SM 2540 D-97	TSS	2	UA	mg/L	P334962	
	SM 4500 F-C-97	Fluoride	0.099	I	mg F/L	P334460	
1940080	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P334267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P334629	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P334186	
	EPA 365.1 Rev. 2.0	Total-P	0.008	I	mg P/L	P334200	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P334707	
1940084	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P334137	

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

Sample Location: Sandy Point Creek Below Sandy Point St. **Collection Date/Time: 10/25/2017 10:45**

Field ID: G4NW0080 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940077	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P334126	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P334434	
		Sulfate	1.8		mg SO4/L	P334437	
	SM 2120 B	Color (true)	350		PCU	P334150	
	SM 2320 B-97	Total Alkalinity	4.7		mg CaCO3/L	P334233	
	SM 2540 C-97	TDS	67		mg/L	P334418	
	SM 2540 D-97	TSS	2	I	mg/L	P334962	

Field ID: G4NW0080 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940077	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P334460	
1940081	EPA 350.1 Rev. 2.0	Ammonia-N	0.22		mg N/L	P334710	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P334450	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P334726	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P334202	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P334707	
1940085	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P334134	

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

Sample Location: Clear Creek @ CR 191 **Collection Date/Time: 10/25/2017 11:15**

Field ID: G4NW0143 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940078	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P334126	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P334434	
		Sulfate	0.42	I	mg SO4/L	P334437	
	SM 2120 B	Color (true)	17		PCU	P334150	
	SM 2320 B-97	Total Alkalinity	2.8		mg CaCO3/L	P334233	
	SM 2540 C-97	TDS	15	I	mg/L	P334418	
	SM 2540 D-97	TSS	3	I	mg/L	P334962	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P334460	
1940082	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P334710	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.096	I	mg N/L	P334450	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.74		mg N/L	P334366	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P334202	
	SM 5310 B-00	Organic Carbon	1.5		mg C/L	P334707	
1940086	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P334134	

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

Sample Location: West Fork Downstream of Hwy 87 **Collection Date/Time: 10/25/2017 12:10**

Field ID: G4NW0017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940073	EPA 180.1 Rev. 2.0	Turbidity	4.4	A	NTU	P334126	
	EPA 300.0 Rev. 2.1	Chloride	5.5		mg Cl/L	P334434	
		Sulfate	1.1		mg SO4/L	P334437	
	SM 2120 B	Color (true)	36	A	PCU	P334150	
	SM 2320 B-97	Total Alkalinity	2.5		mg CaCO3/L	P334233	
	SM 2540 C-97	TDS	31		mg/L	P334418	
	SM 2540 D-97	TSS	5	I	mg/L	P334962	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P334460	
1940074	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P334570	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P334450	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.3		mg N/L	P334366	

Field ID: G4NW0017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940074	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P334202	
	SM 5310 B-00	Organic Carbon	3.9		mg C/L	P334707	
1940075	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P334133	
1940100	EPA 200.7 Rev. 4.4	Calcium	2.11		mg/L	P334131	
		Iron	480		ug/L	P334131	
		Magnesium	1.74		mg/L	P334131	
		Potassium	1.0	I	mg/L	P334131	
		Sodium	2.2		mg/L	P334131	
		Zinc	5.0	U	ug/L	P334131	
	EPA 200.8 Rev. 5.4	Arsenic	0.29		ug/L	P334131	
		Cadmium	0.020	U	ug/L	P334131	
		Chromium	0.40	U	ug/L	P334131	
		Copper	0.30	I	ug/L	P334131	
		Lead	0.22		ug/L	P335017	
		Nickel	0.77	I	ug/L	P334131	
		Silver	0.010	U	ug/L	P334131	

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

Sample Location: West Fork Downstream of Hwy 87 **Collection Date/Time: 10/25/2017 12:10**

Field ID: G4NW0017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940097	EPA 8321B	Glyphosate**	0.10	U	ug/L	P334110	
		Pyraclostrobin**	0.0020	U	ug/L	P334111	
		Sucralose**	0.016	I	ug/L	P334158	
	USGS O-2060-01	2,4-D	0.0020	UQ	ug/L	P335526	
		Diuron	8.0E-04	U	ug/L	P334217	
		Fenuron	0.0080	U	ug/L	P334217	
		Imidacloprid	0.0019	I	ug/L	P334217	MS
		Bentazon	0.0025	IQ	ug/L	P335526	
		Linuron	0.0040	U	ug/L	P334217	
		Acetaminophen**	0.0080	UJ	ug/L	P334217	LCS
		MCPP	0.0020	UQ	ug/L	P335526	
		Carbamazepine**	4.0E-04	U	ug/L	P334217	MS
		Triclopyr**	0.0040	UQ	ug/L	P335526	
		Primidone**	0.0040	U	ug/L	P334217	
		Fluridone**	4.0E-04	U	ug/L	P334217	
1940098	EPA 8270D	Aldrin	4.5	U	ng/L	P334412	
		Alpha-BHC	2.3	U	ng/L	P334412	
		Beta-BHC	4.5	U	ng/L	P334412	
		Delta-BHC	4.5	U	ng/L	P334412	
		Gamma-BHC	4.5	U	ng/L	P334412	
		Carbophenothion	4.5	U	ng/L	P334412	
		Chlorothalonil	2.3	U	ng/L	P334412	

Field ID: G4NW0017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940098	EPA 8270D	Cypermethrin	23	U	ng/L	P334412	
		DDD-p,p'	3.4	U	ng/L	P334412	
		DDE-p,p'	3.4	U	ng/L	P334412	
		DDT-p,p'	3.4	U	ng/L	P334412	
		Dieldrin	4.5	U	ng/L	P334412	
		Endosulfan I	4.5	U	ng/L	P334412	
		Endosulfan II	4.5	U	ng/L	P334412	
		Endosulfan Sulfate	2.3	U	ng/L	P334412	
		Endrin	2.3	U	ng/L	P334412	
		Endrin Aldehyde	2.3	U	ng/L	P334412	
		Heptachlor	1.7	U	ng/L	P334412	
		Heptachlor Epoxide	2.3	U	ng/L	P334412	
		Methoxychlor	4.5	U	ng/L	P334412	
		Mirex	2.3	U	ng/L	P334412	
		Permethrin	11	U	ng/L	P334412	
		Trifluralin	1.1	U	ng/L	P334412	
		Alpha-Chlordane	1.1	U	ng/L	P334412	
		Gamma-Chlordane	1.1	U	ng/L	P334412	
		Endrin Ketone	2.3	U	ng/L	P334412	
		Dicofol	34	U	ng/L	P334412	
	EPA 8276	Chlordane**	2.8	U	ng/L	P334412	
		Toxaphene**	14	U	ng/L	P334412	
1940099	EPA 8270D	Alachlor	1.5	J	ng/L	P334190	
		Ametryn	0.33	U	ng/L	P334190	
		Atrazine	0.30	I	ng/L	P334190	
		Atrazine Desethyl	1.5	U	ng/L	P334190	
		Azinphos Methyl	2.3	U	ng/L	P334190	
		Bromacil	1.1	I	ng/L	P334190	
		Butylate	0.40	U	ng/L	P334190	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P334190	
		Chlorpyrifos Methyl	0.10	U	ng/L	P334190	MS
		Demeton	2.0	U	ng/L	P334190	RPD
		Diazinon	0.13	U	ng/L	P334190	
		Disulfoton	0.50	U	ng/L	P334190	
		EPTC	1.3	U	ng/L	P334190	
		Ethion	0.15	U	ng/L	P334190	
		Ethoprop	0.10	U	ng/L	P334190	
		Fenamiphos	0.25	U	ng/L	P334190	
		Fipronil	0.25	U	ng/L	P334190	MS
		Fipronil Sulfide	0.15	U	ng/L	P334190	
		Fipronil Sulfone	0.15	U	ng/L	P334190	MS
		Hexazinone	3.8		ng/L	P334190	
		Malathion	0.35	U	ng/L	P334190	
		Metribuzin	0.20	UJ	ng/L	P334190	MS, RPD
		Mevinphos	0.50	U	ng/L	P334190	

Field ID: G4NW0017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940099	EPA 8270D	Molinate	0.30	U	ng/L	P334190	
		Norflurazon	1.1	I	ng/L	P334190	
		Pendimethalin	1.0	U	ng/L	P334190	
		Phorate	0.25	U	ng/L	P334190	
		Prometon	0.91	U	ng/L	P334190	
		Prometryn	0.20	U	ng/L	P334190	
		Simazine	0.50	U	ng/L	P334190	
		Terbufos	0.10	UJ	ng/L	P334190	LCS
		Terbuthylazine	0.43	U	ng/L	P334190	
		Fonofos	0.20	U	ng/L	P334190	
		Metalaxyl	0.25	U	ng/L	P334190	
		Metolachlor	9.3	J	ng/L	P334190	
		Acetochlor	0.25	U	ng/L	P334190	
		Cyanazine	0.50	UJ	ng/L	P334190	LCS, MS, RPD
		Parathion Ethyl	0.25	U	ng/L	P334190	
		Parathion Methyl	0.25	U	ng/L	P334190	

Ref. Method and Comment:
USGS O-2060-01: Sample required re-extraction beyond normal holding time due to reagent performance inconsistencies.
USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.Estimated value for Alachlor and Metolachlor due to internal standard recovery outside control limits.

Sample Location: Sevenmile Creek abv Quientette Rd. **Collection Date/Time: 10/25/2017 13:00**

Field ID: G4NW0344 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1940079	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P334126	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P334435	
		Sulfate	0.92		mg SO4/L	P334438	
	SM 2120 B	Color (true)	12		PCU	P334150	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P334233	
	SM 2540 C-97	TDS	27		mg/L	P334418	
	SM 2540 D-97	TSS	2	U	mg/L	P334962	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P334460	
1940083	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P334570	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P334450	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P334366	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P334204	
	SM 5310 B-00	Organic Carbon	1.3		mg C/L	P334707	
1940087	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P334134	

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P334126

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334131

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: P334131

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: P335017

Component	Result	Code	Units
Lead	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334434

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334435

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334437

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334438

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334438

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334267

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334570

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334710

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334450

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334629

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334186

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334366

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334726

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334200

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334202

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334204

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334133

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334134

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334137

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

Reference Method: EPA 8270D
Batch ID: P334190

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	0.50	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P334190

Component	Result	Code	Units
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.25	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	1.0	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 8270D
Batch ID: P334412

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'	3.0	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P334412

Component	Result	Code	Units
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P334412

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

Reference Method: EPA 8321B
Batch ID: P334110

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P334111

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P334158

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P334150

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P334233

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

Reference Method: SM 2540 C-97
Batch ID: P334418

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P334962

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P334460

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P334707

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

Reference Method: USGS O-2060-01
Batch ID: P334217

Component	Result	Code	Units
Acetaminophen	0.0080	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
Primidone	0.0040	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P335526

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
MCPP	0.0020	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: P334131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	104		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	98.5		P	85 - 115
Sodium	99.9		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	106		P	85 - 115
Cadmium	105		P	85 - 115
Chromium	104		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334131

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	102		P	85 - 115
Nickel	103		P	85 - 115
Silver	99.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Lead	98.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334434

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334435

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334437

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334438

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334267

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334570

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334710

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.4		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334450

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334629

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334186

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334366

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334726

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334200

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334202

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334204

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334133

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334134

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334137

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

Reference Method: EPA 8270D
Batch ID: P334190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.2	100	P/P	78 - 118
Alachlor	95.1	94.1	P/P	77 - 119
Ametryn	102	98.9	P/P	61 - 136
Atrazine	90.5	94.5	P/P	73 - 120
Atrazine Desethyl	79.9	62.2	P/P	16 - 122
Azinphos Methyl	160	124	P/P	69 - 186
Bromacil	91.4	86.2	P/P	40 - 125
Butylate	62.3	75.2	P/P	32 - 87.0
Chlorpyrifos Ethyl	90.0	97.3	P/P	53 - 110
Chlorpyrifos Methyl	112	111	P/P	31 - 119
Cyanazine	281	119	F/P	36 - 224
Demeton	87.8	93.8	P/P	39 - 122
Diazinon	99.4	93.4	P/P	75 - 119
Disulfoton	87.7	96.9	P/P	42 - 139
EPTC	56.3	69.7	P/P	33 - 96.0
Ethion	119	114	P/P	63 - 127
Ethoprop	89.9	95.7	P/P	65 - 107
Fenamiphos	105	97.1	P/P	64 - 137
Fipronil	104	91.3	P/P	60 - 126
Fipronil Sulfide	95.2	88.8	P/P	58 - 124
Fipronil Sulfone	108	97.1	P/P	57 - 126
Fonofos	85.7	92.4	P/P	65 - 111
Hexazinone	91.2	101	P/P	46 - 151
Malathion	115	105	P/P	68 - 132
Metalaxyl	83.3	78.3	P/P	51 - 132
Metolachlor	94.3	92.4	P/P	78 - 119
Metribuzin	137	91.9	P/P	58 - 148
Mevinphos	86.4	98.0	P/P	34 - 128
Molinate	67.4	76.7	P/P	44 - 101
Norflurazon	99.5	93.8	P/P	63 - 129
Parathion Ethyl	88.4	91.8	P/P	80 - 109
Parathion Methyl	97.0	112	P/P	74 - 125
Pendimethalin	87.3	97.2	P/P	48 - 134
Phorate	103	106	P/P	52 - 119
Prometon	89.7	96.0	P/P	69 - 124
Prometryn	101	95.8	P/P	66 - 124
Simazine	88.7	101	P/P	61 - 134
Terbufos	113	121	P/F	58 - 115
Terbuthylazine	94.0	95.6	P/P	77 - 113

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P334412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	78.4	82.2	P/P	26 - 88.0
Alpha-BHC	88.1	70.7	P/P	63 - 114
Alpha-Chlordane	87.4	89.6	P/P	56 - 117
Beta-BHC	88.1	83.4	P/P	57 - 138
Carbophenothion	97.3	93.5	P/P	36 - 148
Chlorothalonil	79.5	106	P/P	26 - 173
Cypermethrin	91.7	96.9	P/P	42 - 159
DDD-p,p'	93.9	93.6	P/P	62 - 126
DDE-p,p'	91.3	92.9	P/P	53 - 115
DDT-p,p'	96.3	99.7	P/P	54 - 117
Delta-BHC	103	83.3	P/P	68 - 158
Dicofol	66.7	51.7	P/P	25 - 114
Dieldrin	88.6	90.6	P/P	59 - 126
Endosulfan I	91.5	93.1	P/P	62 - 138
Endosulfan II	91.8	92.0	P/P	61 - 150
Endosulfan Sulfate	94.2	92.3	P/P	63 - 132
Endrin	95.7	92.9	P/P	49 - 148
Endrin Aldehyde	91.8	90.7	P/P	50 - 144
Endrin Ketone	93.7	93.4	P/P	66 - 122
Gamma-BHC	90.1	88.3	P/P	60 - 137
Gamma-Chlordane	85.9	88.6	P/P	54 - 113
Heptachlor	81.7	84.7	P/P	43 - 104
Heptachlor Epoxide	89.1	89.8	P/P	64 - 118
Methoxychlor	102	107	P/P	63 - 129
Mirex	85.4	85.5	P/P	39 - 93.0
Permethrin	88.0	93.8	P/P	51 - 123
Trifluralin	83.5	87.0	P/P	35 - 187

Reference Method: EPA 8276
Batch ID: P334412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	74.5	71.6	P/P	48 - 121
Toxaphene	99.5	102	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P334110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	87.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P334111

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	62.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P334158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	85.0		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P334233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P334460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P334707

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P334217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	151		F	30 - 150
Carbamazepine	143		P	40 - 150
Diuron	112		P	40 - 150
Fenuron	117		P	40 - 150
Fluridone	117		P	40 - 150
Imidacloprid	114		P	40 - 160
Linuron	116		P	40 - 150
Primidone	110		P	40 - 150

Reference Method: USGS O-2060-01
Batch ID: P335526

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	102		P	40 - 150
Bentazon	91.1		P	30 - 150
MCPP	91.5		P	40 - 150
Triclopyr	94.8		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939742	Calcium	103		P	80 - 120
1939742	Iron	103		P	80 - 120
1939742	Magnesium	101		P	80 - 120
1939742	Potassium	97.7		P	80 - 120
1939742	Sodium	99.2		P	80 - 120
1939742	Zinc	98.2		P	80 - 120
1939923	Calcium	107	106	P/P	80 - 120
1939923	Iron	104	104	P/P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939923	Magnesium	107	106	P/P	80 - 120
1939923	Potassium	106	106	P/P	80 - 120
1939923	Sodium	102		P	80 - 120
1939923	Zinc	102	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334131

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939742	Arsenic	107		P	80 - 120
1939742	Cadmium	106		P	80 - 120
1939742	Chromium	103		P	80 - 120
1939742	Copper	98.7		P	80 - 120
1939742	Nickel	102		P	80 - 120
1939742	Silver	100		P	80 - 120
1939923	Arsenic	105	104	P/P	80 - 120
1939923	Cadmium	106	105	P/P	80 - 120
1939923	Chromium	102	105	P/P	80 - 120
1939923	Copper	101	99.7	P/P	80 - 120
1939923	Nickel	102	105	P/P	80 - 120
1939923	Silver	99.1	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939777	Lead	97.4		P	80 - 120
1941704	Lead	96.3	96.1	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334434

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940049	Chloride	103		P	90 - 110
1940073	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334435

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940079	Chloride	106		P	90 - 110
1940108	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940049	Sulfate	101		P	90 - 110
1940073	Sulfate	101		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940079	Sulfate	103		P	90 - 110
1940108	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939614	Ammonia-N	109	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334570

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940054	Ammonia-N	97.6	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334710

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939709	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940083	Kjeldahl Nitrogen	101	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940178	Kjeldahl Nitrogen	96.9	94.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939619	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334366

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940053	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1941222	NO2NO3-N	100	100	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939833	Total-P	98.6	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940054	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940127	Total-P	99.8	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939971	O-Phosphate-P	97.9	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940086	O-Phosphate-P	98.9	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334137

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940084	O-Phosphate-P	92.6	92.0	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P334190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940131	Acetochlor	104	102	P/P	74 - 123
1940131	Alachlor	103	96.3	P/P	73 - 124
1940131	Ametryn	118	110	P/P	56 - 149
1940131	Atrazine Desethyl	83.7	93.4	P/P	12 - 103
1940131	Azinphos Methyl	157	154	P/P	60 - 202
1940131	Bromacil	108	86.8	P/P	42 - 133
1940131	Butylate	33.8	43.1	P/P	10 - 85.0
1940131	Chlorpyrifos Ethyl	109	104	P/P	53 - 113
1940131	Chlorpyrifos Methyl	113	121	P/F	40 - 115
1940131	Cyanazine	307	347	F/F	22 - 210
1940131	Demeton	65.4	101	P/P	17 - 149
1940131	Diazinon	103	101	P/P	72 - 124
1940131	Disulfoton	102	107	P/P	43 - 139
1940131	EPTC	31.1	34.2	P/P	10 - 86.0
1940131	Ethion	126	126	P/P	65 - 131
1940131	Ethoprop	98.3	103	P/P	59 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P334190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940131	Fenamiphos	104	128	P/P	57 - 138
1940131	Fipronil	131	125	F/P	40 - 130
1940131	Fipronil Sulfide	124	119	P/P	36 - 128
1940131	Fipronil Sulfone	201	186	F/F	16 - 145
1940131	Fonofos	85.2	99.3	P/P	60 - 112
1940131	Hexazinone	110	106	P/P	69 - 142
1940131	Malathion	117	119	P/P	68 - 132
1940131	Metalaxyl	101	90.6	P/P	66 - 118
1940131	Metolachlor	104	95.5	P/P	71 - 124
1940131	Metribuzin	154	160	F/F	61 - 140
1940131	Mevinphos	90.4	98.0	P/P	38 - 130
1940131	Molinate	54.2	58.8	P/P	23 - 99.0
1940131	Norflurazon	113	103	P/P	39 - 139
1940131	Parathion Ethyl	90.9	98.7	P/P	75 - 111
1940131	Parathion Methyl	103	111	P/P	64 - 130
1940131	Pendimethalin	111	115	P/P	26 - 173
1940131	Phorate	97.1	113	P/P	43 - 127
1940131	Prometon	126	96.0	P/P	50 - 144
1940131	Prometryn	110	108	P/P	69 - 126
1940131	Simazine	104	108	P/P	51 - 152
1940131	Terbufos	111	125	P/P	54 - 125
1940131	Terbuthylazine	105	97.9	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P334412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940366	Aldrin	84.8	86.2	P/P	22 - 97.0
1940366	Alpha-BHC	96.3	98.6	P/P	43 - 132
1940366	Alpha-Chlordane	96.8	96.3	P/P	36 - 126
1940366	Beta-BHC	97.6	75.8	P/P	41 - 150
1940366	Carbophenothion	114	118	P/P	13 - 196
1940366	Chlorothalonil	128	130	P/P	10 - 266
1940366	Cypermethrin	93.6	125	P/P	37 - 161
1940366	DDD-p,p'	105	93.7	P/P	44 - 131
1940366	DDE-p,p'	95.1	95.2	P/P	32 - 127
1940366	DDT-p,p'	97.9	103	P/P	45 - 116
1940366	Delta-BHC	124	102	P/P	50 - 201
1940366	Dicofol	64.2	65.1	P/P	10 - 100
1940366	Dieldrin	99.7	95.8	P/P	39 - 142
1940366	Endosulfan I	103	97.9	P/P	51 - 139
1940366	Endosulfan II	98.9	98.7	P/P	49 - 155
1940366	Endosulfan Sulfate	98.2	96.4	P/P	54 - 136
1940366	Endrin	108	103	P/P	38 - 141
1940366	Endrin Aldehyde	89.4	99.6	P/P	14 - 152
1940366	Endrin Ketone	99.8	100	P/P	60 - 128
1940366	Gamma-BHC	95.8	90.6	P/P	48 - 157
1940366	Gamma-Chlordane	93.4	94.1	P/P	35 - 123
1940366	Heptachlor	86.7	91.2	P/P	25 - 112
1940366	Heptachlor Epoxide	101	97.3	P/P	48 - 125
1940366	Methoxychlor	111	114	P/P	52 - 127
1940366	Mirex	85.8	91.3	P/P	25 - 108

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P334412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940366	Permethrin	90.3	116	P/P	46 - 133
1940366	Trifluralin	90.9	92.4	P/P	29 - 254

Reference Method: EPA 8276
Batch ID: P334412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940324	Chlordane	49.4	49.7	P/P	44 - 134
1940324	Toxaphene	72.8	75.2	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P334110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940315	Glyphosate	101	105	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P334111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939436	Pyraclostrobin	55.8	59.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P334158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1939692	Sucralose	64.6	64.6	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P334460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940259	Fluoride	99.1	99.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P334707

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940054	Organic Carbon	101	102	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P334217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940229	Acetaminophen	97.1	103	P/P	30 - 150
1940229	Carbamazepine	136	154	P/F	40 - 150
1940229	Diuron	90.8	107	P/P	40 - 150
1940229	Fenuron	102	115	P/P	40 - 150
1940229	Fluridone	104	98.0	P/P	40 - 150
1940229	Imidacloprid	217	250	F/F	40 - 160
1940229	Linuron	108	118	P/P	40 - 150
1940229	Primidone	108	129	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P335526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1940027	2,4-D	85.4	83.6	P/P	40 - 150
1940027	Bentazon	87.2	86.7	P/P	30 - 150
1940027	MCPP	71.8	66.5	P/P	40 - 150
1940027	Triclopyr	69.0	65.9	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P334126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940073	Turbidity	0.460	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P334131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939923	Calcium	0.409	Spike	P	0 - 20
1939923	Iron	0.116	Spike	P	0 - 20
1939923	Magnesium	0.668	Spike	P	0 - 20
1939923	Potassium	0.0319	Spike	P	0 - 20
1939923	Sodium	0.655	Spike	P	0 - 20
1939923	Zinc	0.689	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P334131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939923	Arsenic	0.982	Spike	P	0 - 20
1939923	Cadmium	0.691	Spike	P	0 - 20
1939923	Chromium	3.13	Spike	P	0 - 20
1939923	Copper	1.12	Spike	P	0 - 20
1939923	Nickel	2.42	Spike	P	0 - 20
1939923	Silver	1.83	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1941704	Lead	0.185	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940049	Chloride	0.322	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940108	Chloride	0.467	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940049	Sulfate	0.638	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P334438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940108	Sulfate	0.366	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939614	Ammonia-N	2.11	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334570

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940054	Ammonia-N	0.452	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P334710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939709	Ammonia-N	0.199	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940083	Kjeldahl Nitrogen	3.10	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P334629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940178	Kjeldahl Nitrogen	2.38	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939619	NO2NO3-N	0.471	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334366

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940053	NO2NO3-N	0.289	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P334726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1941222	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939833	Total-P	0.366	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940054	Total-P	0.303	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P334204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940127	Total-P	3.16	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939971	O-Phosphate-P	1.22	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334134

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940086	O-Phosphate-P	4.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P334137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940084	O-Phosphate-P	0.650	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P334190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940131	Acetochlor	1.72	Spike	P	0 - 30
1940131	Alachlor	7.09	Spike	P	0 - 30
1940131	Ametryn	6.95	Spike	P	0 - 30
1940131	Atrazine	4.11	Spike	P	0 - 30
1940131	Atrazine Desethyl	7.70	Spike	P	0 - 30
1940131	Azinphos Methyl	1.85	Spike	P	0 - 30
1940131	Bromacil	14.8	Spike	P	0 - 30
1940131	Butylate	24.2	Spike	P	0 - 30
1940131	Chlorpyrifos Ethyl	4.40	Spike	P	0 - 30
1940131	Chlorpyrifos Methyl	7.51	Spike	P	0 - 30
1940131	Cyanazine	12.1	Spike	P	0 - 30
1940131	Demeton	42.8	Spike	F	0 - 30
1940131	Diazinon	1.88	Spike	P	0 - 30
1940131	Disulfoton	5.20	Spike	P	0 - 30
1940131	EPTC	9.68	Spike	P	0 - 30
1940131	Ethion	0.410	Spike	P	0 - 30
1940131	Ethoprop	4.34	Spike	P	0 - 30
1940131	Fenamiphos	21.2	Spike	P	0 - 30
1940131	Fipronil	3.17	Spike	P	0 - 30
1940131	Fipronil Sulfide	1.61	Spike	P	0 - 30
1940131	Fipronil Sulfone	2.48	Spike	P	0 - 30
1940131	Fonofos	15.3	Spike	P	0 - 30
1940131	Hexazinone	1.93	Spike	P	0 - 30
1940131	Malathion	2.07	Spike	P	0 - 30
1940131	Metalaxyl	5.58	Spike	P	0 - 30
1940131	Metolachlor	8.53	Spike	P	0 - 30
1940131	Metribuzin	3.22	Spike	P	0 - 30
1940131	Mevinphos	8.10	Spike	P	0 - 30
1940131	Molinate	8.13	Spike	P	0 - 30
1940131	Norflurazon	8.60	Spike	P	0 - 30
1940131	Parathion Ethyl	8.22	Spike	P	0 - 30
1940131	Parathion Methyl	6.76	Spike	P	0 - 30
1940131	Pendimethalin	3.87	Spike	P	0 - 30
1940131	Phorate	14.8	Spike	P	0 - 30
1940131	Prometon	26.9	Spike	P	0 - 30
1940131	Prometryn	1.40	Spike	P	0 - 30
1940131	Simazine	3.34	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P334190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940131	Terbufos	11.9	Spike	P	0 - 30
1940131	Terbuthylazine	6.80	Spike	P	0 - 30
LFB	Acetochlor	1.19	LCS	P	0 - 30
LFB	Alachlor	1.08	LCS	P	0 - 30
LFB	Ametryn	2.62	LCS	P	0 - 30
LFB	Atrazine	4.39	LCS	P	0 - 30
LFB	Atrazine Desethyl	25.0	LCS	P	0 - 30
LFB	Azinphos Methyl	25.0	LCS	P	0 - 30
LFB	Bromacil	5.77	LCS	P	0 - 30
LFB	Butylate	18.8	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	7.76	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.06	LCS	P	0 - 30
LFB	Cyanazine	80.7	LCS	F	0 - 30
LFB	Demeton	6.65	LCS	P	0 - 30
LFB	Diazinon	6.19	LCS	P	0 - 30
LFB	Disulfoton	9.90	LCS	P	0 - 30
LFB	EPTC	21.3	LCS	P	0 - 30
LFB	Ethion	4.74	LCS	P	0 - 30
LFB	Ethoprop	6.33	LCS	P	0 - 30
LFB	Fenamiphos	8.02	LCS	P	0 - 30
LFB	Fipronil	13.3	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.95	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.2	LCS	P	0 - 30
LFB	Fonofos	7.55	LCS	P	0 - 30
LFB	Hexazinone	10.4	LCS	P	0 - 30
LFB	Malathion	9.31	LCS	P	0 - 30
LFB	Metalaxyl	6.16	LCS	P	0 - 30
LFB	Metolachlor	2.01	LCS	P	0 - 30
LFB	Metribuzin	39.4	LCS	F	0 - 30
LFB	Mevinphos	12.7	LCS	P	0 - 30
LFB	Molinate	12.9	LCS	P	0 - 30
LFB	Norflurazon	5.91	LCS	P	0 - 30
LFB	Parathion Ethyl	3.78	LCS	P	0 - 30
LFB	Parathion Methyl	14.6	LCS	P	0 - 30
LFB	Pendimethalin	10.7	LCS	P	0 - 30
LFB	Phorate	2.29	LCS	P	0 - 30
LFB	Prometon	6.74	LCS	P	0 - 30
LFB	Prometryn	5.63	LCS	P	0 - 30
LFB	Simazine	13.1	LCS	P	0 - 30
LFB	Terbufos	6.96	LCS	P	0 - 30
LFB	Terbuthylazine	1.72	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P334412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940366	Aldrin	1.56	Spike	P	0 - 30
1940366	Alpha-BHC	2.33	Spike	P	0 - 30
1940366	Alpha-Chlordane	0.586	Spike	P	0 - 30
1940366	Beta-BHC	25.1	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P334412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940366	Carbophenothion	3.82	Spike	P	0 - 30
1940366	Chlorothalonil	1.45	Spike	P	0 - 30
1940366	Cypermethrin	28.6	Spike	P	0 - 30
1940366	DDD-p,p'	11.2	Spike	P	0 - 30
1940366	DDE-p,p'	0.115	Spike	P	0 - 30
1940366	DDT-p,p'	5.03	Spike	P	0 - 30
1940366	Delta-BHC	19.1	Spike	P	0 - 30
1940366	Dicofol	1.49	Spike	P	0 - 30
1940366	Dieldrin	3.98	Spike	P	0 - 30
1940366	Endosulfan I	4.94	Spike	P	0 - 30
1940366	Endosulfan II	0.137	Spike	P	0 - 30
1940366	Endosulfan Sulfate	1.82	Spike	P	0 - 30
1940366	Endrin	4.49	Spike	P	0 - 30
1940366	Endrin Aldehyde	10.8	Spike	P	0 - 30
1940366	Endrin Ketone	0.661	Spike	P	0 - 30
1940366	Gamma-BHC	5.51	Spike	P	0 - 30
1940366	Gamma-Chlordane	0.782	Spike	P	0 - 30
1940366	Heptachlor	5.03	Spike	P	0 - 30
1940366	Heptachlor Epoxide	3.82	Spike	P	0 - 30
1940366	Methoxychlor	2.75	Spike	P	0 - 30
1940366	Mirex	6.30	Spike	P	0 - 30
1940366	Permethrin	25.0	Spike	P	0 - 30
1940366	Trifluralin	1.73	Spike	P	0 - 30
LFB	Aldrin	4.78	LCS	P	0 - 30
LFB	Alpha-BHC	21.9	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.49	LCS	P	0 - 30
LFB	Beta-BHC	5.47	LCS	P	0 - 30
LFB	Carbophenothion	4.04	LCS	P	0 - 30
LFB	Chlorothalonil	28.3	LCS	P	0 - 30
LFB	Cypermethrin	5.50	LCS	P	0 - 30
LFB	DDD-p,p'	0.316	LCS	P	0 - 30
LFB	DDE-p,p'	1.80	LCS	P	0 - 30
LFB	DDT-p,p'	3.51	LCS	P	0 - 30
LFB	Delta-BHC	20.8	LCS	P	0 - 30
LFB	Dicofol	25.4	LCS	P	0 - 30
LFB	Dieldrin	2.26	LCS	P	0 - 30
LFB	Endosulfan I	1.80	LCS	P	0 - 30
LFB	Endosulfan II	0.221	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.06	LCS	P	0 - 30
LFB	Endrin	2.95	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.21	LCS	P	0 - 30
LFB	Endrin Ketone	0.292	LCS	P	0 - 30
LFB	Gamma-BHC	1.97	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.08	LCS	P	0 - 30
LFB	Heptachlor	3.60	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.758	LCS	P	0 - 30
LFB	Methoxychlor	5.41	LCS	P	0 - 30
LFB	Mirex	0.0933	LCS	P	0 - 30
LFB	Permethrin	6.36	LCS	P	0 - 30
LFB	Trifluralin	4.09	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P334412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940324	Chlordane	0.619	Spike	P	0 - 30
1940324	Toxaphene	3.24	Spike	P	0 - 30
LFB	Chlordane	3.91	LCS	P	0 - 30
LFB	Toxaphene	2.04	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P334110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940315	Glyphosate	2.74	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P334111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939436	Pyraclostrobin	6.50	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P334158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1939692	Sucralose	0.0	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P334150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940073	Color (true)	0.692	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P334233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940259	Total Alkalinity	0.565	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P334418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940076	TDS	0.292	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P334460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940259	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P334707

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940054	Organic Carbon	0.269	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P334217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940229	Acetaminophen	6.23	Spike	P	0 - 30
1940229	Carbamazepine	13.1	Spike	P	0 - 30
1940229	Diuron	16.3	Spike	P	0 - 30
1940229	Fenuron	11.6	Spike	P	0 - 30
1940229	Fluridone	4.88	Spike	P	0 - 30
1940229	Imidacloprid	14.5	Spike	P	0 - 30
1940229	Linuron	8.92	Spike	P	0 - 30
1940229	Primidone	17.6	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P335526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1940027	2,4-D	2.07	Spike	P	0 - 30
1940027	Bentazon	0.633	Spike	P	0 - 30
1940027	MCPP	7.60	Spike	P	0 - 30
1940027	Triclopyr	4.66	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: 1940097
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	149	P	30 - 160
EPA 8321B	Carbamazepine-d10	149	P	30 - 160
EPA 8321B	Diuron-d6	93.8	P	30 - 160
EPA 8321B	Diuron-d6	100	P	30 - 160
EPA 8321B	Diuron-d6	93.8	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 1940097
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.4	P	40 - 160
EPA 8321B	Primidone-d5	124	P	30 - 160
EPA 8321B	Primidone-d5	124	P	30 - 160
EPA 8321B	Sucralose-d6	90.7	P	40 - 160
EPA 8321B	Sucralose-d6	90.7	P	40 - 160
USGS O-2060-01	2,4-D-d3	67.4	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	108	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	149	P	30 - 160
USGS O-2060-01	Diuron-d6	93.8	P	30 - 160
USGS O-2060-01	Diuron-d6	100	P	30 - 160
USGS O-2060-01	Primidone-d5	124	P	30 - 160
USGS O-2060-01	Sucralose-d6	90.7	P	40 - 160

Lab Sample ID: 1940098
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	68.3	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	53.6	P	32 - 103
EPA 8276	Decachlorobiphenyl	58.7	P	31 - 100

Lab Sample ID: 1940099
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	119	P	53 - 135
EPA 8270D	Simazine-d10	106	P	71 - 126

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A79831
Included Lab Sample IDs: 1940073, 1940076, 1940077, 1940078, 1940079, 1940088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79834
Included Lab Sample IDs: 1940075, 1940084, 1940085, 1940086, 1940087, 1940090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	103	P/P	90 - 110
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	101	103	P/P	90 - 110
O-Phosphate-P	101	101	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B
Run ID: A79841
Included Lab Sample IDs: 1940073, 1940076, 1940077, 1940078, 1940079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.6	100	P/P	85 - 115
Color (true)	99.3	102	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A79849
Included Lab Sample IDs: 1940080

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A79868
Included Lab Sample IDs: 1940100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	100	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	99.9	98.1	P/P	90 - 110
Sodium	102	99.4	P/P	90 - 110
Zinc	96.5	98.3	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A79869
Included Lab Sample IDs: 1940073, 1940076, 1940077, 1940078, 1940079, 1940088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.3	P/P	90 - 110
Total Alkalinity	99.6	103	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A79873
Included Lab Sample IDs: 1940097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	87.2	91.6	P/P	70 - 160

Reference Method: EPA 8321B
Run ID: A79874
Included Lab Sample IDs: 1940097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	77.0	78.0	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A79878
Included Lab Sample IDs: 1940080

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.8	98.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A79900
Included Lab Sample IDs: 1940074, 1940080, 1940081, 1940082, 1940083, 1940089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	100	P/P	90 - 110
Total-P	99.8	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A79916
Included Lab Sample IDs: 1940074, 1940082, 1940083, 1940089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A79937
Included Lab Sample IDs: 1940073, 1940076, 1940077, 1940078, 1940079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	105	105	P/P	90 - 110
Chloride	105	106	P/P	90 - 110
Chloride	107	106	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110
Sulfate	104	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A79945
Included Lab Sample IDs: 1940097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	98.6	P/P	60 - 150

Reference Method: SM 4500 F-C-97
Run ID: A79949
Included Lab Sample IDs: 1940073, 1940076, 1940077, 1940078, 1940079, 1940088

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A79972
Included Lab Sample IDs: 1940100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	109	104	P/P	90 - 110
Nickel	109	109	P/P	90 - 110
Silver	102	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A79995
Included Lab Sample IDs: 1940074, 1940083, 1940089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A79995
Included Lab Sample IDs: 1940074, 1940083, 1940089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	104	P/P	90 - 110
Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A80031
Included Lab Sample IDs: 1940074, 1940081, 1940082, 1940083, 1940089

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A80041
Included Lab Sample IDs: 1940100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	107	109	P/P	90 - 110
Cadmium	105	105	P/P	90 - 110
Copper	105	106	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A80051
Included Lab Sample IDs: 1940074, 1940080, 1940081, 1940082, 1940083, 1940089

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A80055
Included Lab Sample IDs: 1940081, 1940082

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A80058
Included Lab Sample IDs: 1940081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A80098
Included Lab Sample IDs: 1940080

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A80218
Included Lab Sample IDs: 1940100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	95.3	93.8	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A80234
Included Lab Sample IDs: 1940098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	86.8		P	80 - 120
Toxaphene	108		P	80 - 120

Reference Method: EPA 8270D
Run ID: A80284
Included Lab Sample IDs: 1940098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	98.5		P	80 - 120
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	97.4		P	80 - 120
Carbophenothion	86.8		P	80 - 120
Chlorothalonil	90.4		P	80 - 120
Cypermethrin	94.3		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	106		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	94.9		P	80 - 120
Dicofol	98.7		P	80 - 120
Dieldrin	97.6		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	114		P	80 - 120
Endosulfan Sulfate	99.2		P	80 - 120
Endrin	105		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	97.3		P	80 - 120
Gamma-BHC	94.2		P	80 - 120
Gamma-Chlordane	102		P	80 - 120
Heptachlor	100		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	93.7		P	80 - 120
Trifluralin	99.7		P	80 - 120

Reference Method: USGS O-2060-01
Run ID: A80386
Included Lab Sample IDs: 1940097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.8	103	P/P	50 - 150
Bentazon	121	122	P/P	50 - 150
MCPP	106	104	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: USGS O-2060-01
Run ID: A80386
Included Lab Sample IDs: 1940097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Triclopyr	107	101	P/P	50 - 150

Reference Method: USGS O-2060-01
Run ID: A80401
Included Lab Sample IDs: 1940097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	127	124	P/P	60 - 150
Carbamazepine	135	132	P/P	60 - 150
Diuron	115	115	P/P	60 - 150
Fenuron	115	114	P/P	60 - 150
Fluridone	125	127	P/P	60 - 160
Imidacloprid	114	115	P/P	60 - 150
Linuron	125	128	P/P	60 - 150
Primidone	116	121	P/P	60 - 150

Reference Method: EPA 8270D
Run ID: A80519
Included Lab Sample IDs: 1940099

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	98.2		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	93.0		P	80 - 120
Atrazine Desethyl	94.0		P	80 - 120
Azinphos Methyl	93.8		P	80 - 120
Bromacil	97.8		P	80 - 120
Butylate	99.9		P	80 - 120
Chlorpyrifos Ethyl	99.1		P	80 - 120
Chlorpyrifos Methyl	95.4		P	80 - 120
Cyanazine	102		P	80 - 120
Demeton	90.1		P	80 - 120
Diazinon	93.3		P	80 - 120
Disulfoton	94.1		P	80 - 120
EPTC	98.2		P	80 - 120
Ethion	95.7		P	80 - 120
Ethoprop	97.2		P	80 - 120
Fenamiphos	96.1		P	80 - 120
Fipronil	94.4		P	80 - 120
Fipronil Sulfide	94.0		P	80 - 120
Fipronil Sulfone	94.0		P	80 - 120
Fonofos	86.1		P	80 - 120
Hexazinone	102		P	80 - 120
Malathion	94.3		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	97.8		P	80 - 120
Metribuzin	90.7		P	80 - 120
Mevinphos	90.1		P	80 - 120
Molinate	95.0		P	80 - 120
Norflurazon	101		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A80519
Included Lab Sample IDs: 1940099

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Ethyl	92.9		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	93.6		P	80 - 120
Phorate	89.2		P	80 - 120
Prometon	93.9		P	80 - 120
Prometryn	101		P	80 - 120
Simazine	97.5		P	80 - 120
Terbufos	86.2		P	80 - 120
Terbuthylazine	94.3		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.460	
EPA 200.7 Rev. 4.4	Calcium	106	103	107	106			0.409
	Iron	104	103	104	104			0.116
	Magnesium	107	101	107	106			0.668
	Potassium	98.5	97.7	106	106			0.0319
	Sodium	99.9	99.2	102				0.655
	Zinc	101	98.2	102	103			0.689
EPA 200.8 Rev. 5.4	Arsenic	106	107	105	104			0.982
	Cadmium	105	106	106	105			0.691
	Chromium	104	103	102	105			3.13
	Copper	102	98.7	101	99.7			1.12
	Lead	98.0	97.4	96.3	96.1			0.185
	Nickel	103	102	102	105			2.42
	Silver	99.5	100	99.1	101			1.83
EPA 300.0 Rev. 2.1	Chloride	104	103	104			0.322	
	Chloride	106	105	106			0.467	
	Sulfate	102	101	101			0.638	
	Sulfate	103	103	103			0.366	
EPA 350.1 Rev. 2.0	Ammonia-N	109	109	106				2.11
	Ammonia-N	99.2	97.6	98.1				0.452
	Ammonia-N	95.4	102	102				0.199
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	101	97.7				3.10
	Kjeldahl Nitrogen	100	96.9	94.2				2.38
EPA 353.2 Rev. 2.0	NO2NO3-N	104	103	103				0.471
	NO2NO3-N	104	104	104				0.289
	NO2NO3-N	102	100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	103	98.6	98.2				0.366
	Total-P	105	103	102				0.303
	Total-P	105	99.8	103				3.16
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4	97.9	99.1				1.22
	O-Phosphate-P	104	98.9	103				4.35

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		92.6	92.0			0.650
EPA 8270D	Acetochlor	99.2	100	104	102	1.19		1.72
	Alachlor	95.1	94.1	103	96.3	1.08		7.09
	Aldrin	78.4	82.2	84.8	86.2	4.78		1.56
	Alpha-BHC	88.1	70.7	96.3	98.6	21.9		2.33
	Alpha-Chlordane	87.4	89.6	96.3	96.8	2.49		0.586
	Ametryn	102	98.9	118	110	2.62		6.95
	Atrazine	90.5	94.5			4.39		4.11
	Atrazine Desethyl	79.9	62.2	83.7	93.4	25.0		7.70
	Azinphos Methyl	160	124	157	154	25.0		1.85
	Beta-BHC	88.1	83.4	75.8	97.6	5.47		25.1
	Bromacil	91.4	86.2	108	86.8	5.77		14.8
	Butylate	62.3	75.2	33.8	43.1	18.8		24.2
	Carbophenothion	97.3	93.5	118	114	4.04		3.82
	Chlorothalonil	79.5	106	130	128	28.3		1.45
	Chlorpyrifos Ethyl	90.0	97.3	109	104	7.76		4.40
	Chlorpyrifos Methyl	112	111	113	121	1.06		7.51
	Cyanazine	281	119	307	347	80.7		12.1
	Cypermethrin	91.7	96.9	125	93.6	5.50		28.6
	DDD-p,p'	93.9	93.6	93.7	105	0.316		11.2
	DDE-p,p'	91.3	92.9	95.1	95.2	1.80		0.115
	DDT-p,p'	96.3	99.7	97.9	103	3.51		5.03
	Delta-BHC	103	83.3	102	124	20.8		19.1
	Demeton	87.8	93.8	65.4	101	6.65		42.8
	Diazinon	99.4	93.4	103	101	6.19		1.88
	Dicofol	66.7	51.7	65.1	64.2	25.4		1.49
	Dieldrin	88.6	90.6	99.7	95.8	2.26		3.98
	Disulfoton	87.7	96.9	102	107	9.90		5.20
	Endosulfan I	91.5	93.1	103	97.9	1.80		4.94
	Endosulfan II	91.8	92.0	98.9	98.7	0.221		0.137
	Endosulfan Sulfate	94.2	92.3	98.2	96.4	2.06		1.82
	Endrin	95.7	92.9	108	103	2.95		4.49
	Endrin Aldehyde	91.8	90.7	89.4	99.6	1.21		10.8
	Endrin Ketone	93.7	93.4	100	99.8	0.292		0.661
	EPTC	56.3	69.7	31.1	34.2	21.3		9.68
	Ethion	119	114	126	126	4.74		0.410
	Ethoprop	89.9	95.7	98.3	103	6.33		4.34
	Fenamiphos	105	97.1	104	128	8.02		21.2
	Fipronil	104	91.3	131	125	13.3		3.17
	Fipronil Sulfide	95.2	88.8	124	119	6.95		1.61
	Fipronil Sulfone	108	97.1	201	186	10.2		2.48
	Fonofos	85.7	92.4	85.2	99.3	7.55		15.3
	Gamma-BHC	90.1	88.3	90.6	95.8	1.97		5.51
	Gamma-Chlordane	85.9	88.6	94.1	93.4	3.08		0.782
	Heptachlor	81.7	84.7	86.7	91.2	3.60		5.03
	Heptachlor Epoxide	89.1	89.8	101	97.3	0.758		3.82
	Hexazinone	91.2	101	110	106	10.4		1.93
	Malathion	115	105	117	119	9.31		2.07
	Metalaxyl	83.3	78.3	101	90.6	6.16		5.58
	Methoxychlor	102	107	111	114	5.41		2.75
	Metolachlor	94.3	92.4	104	95.5	2.01		8.53
	Metribuzin	137	91.9	154	160	39.4		3.22
	Mevinphos	86.4	98.0	90.4	98.0	12.7		8.10
	Mirex	85.4	85.5	85.8	91.3	0.0933		6.30

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Molinate	67.4	76.7	54.2	58.8	12.9		8.13
	Norflurazon	99.5	93.8	113	103	5.91		8.60
	Parathion Ethyl	88.4	91.8	90.9	98.7	3.78		8.22
	Parathion Methyl	97.0	112	103	111	14.6		6.76
	Pendimethalin	87.3	97.2	111	115	10.7		3.87
	Permethrin	88.0	93.8	116	90.3	6.36		25.0
	Phorate	103	106	97.1	113	2.29		14.8
	Prometon	89.7	96.0	126	96.0	6.74		26.9
	Prometryn	101	95.8	110	108	5.63		1.40
	Simazine	88.7	101	104	108	13.1		3.34
	Terbufos	113	121	111	125	6.96		11.9
	Terbuthylazine	94.0	95.6	105	97.9	1.72		6.80
	Trifluralin	83.5	87.0	92.4	90.9	4.09		1.73
EPA 8276	Chlordane	74.5	71.6	49.4	49.7	3.91		0.619
	Toxaphene	99.5	102	72.8	75.2	2.04		3.24
EPA 8321B	Glyphosate	87.6		101	105			2.74
	Pyraclostrobin	62.2		55.8	59.6			6.50
	Sucralose	85.0		64.6	64.6			0.0
SM 2120 B	Color (true)						0.692	
SM 2320 B-97	Total Alkalinity	101					0.565	
SM 2540 C-97	TDS						0.292	
SM 4500 F-C-97	Fluoride	98.2		99.1	99.1			0.0
SM 5310 B-00	Organic Carbon	102		101	102			0.269
USGS O-2060-01	2,4-D	102		85.4	83.6			2.07
	Acetaminophen	151		97.1	103			6.23
	Bentazon	91.1		87.2	86.7			0.633
	Carbamazepine	143		136	154			13.1
	Diuron	112		90.8	107			16.3
	Fenuron	117		102	115			11.6
	Fluridone	117		104	98.0			4.88
	Imidacloprid	114		217	250			14.5
	Linuron	116		108	118			8.92
	MCPP	91.5		71.8	66.5			7.60
	Primidone	110		108	129			17.6
	Triclopyr	94.8		69.0	65.9			4.66

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1940100
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1940100
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1940073, 1940076, 1940077, 1940078, 1940079
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1940073, 1940076, 1940077, 1940078, 1940079
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1940074, 1940080, 1940081, 1940082, 1940083, 1940089
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1940074, 1940080, 1940081, 1940082, 1940083, 1940089
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1940074, 1940080, 1940081, 1940082, 1940083, 1940089

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	1940074, 1940080, 1940081, 1940082, 1940083, 1940089
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1940075, 1940084, 1940085, 1940086, 1940087, 1940090
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1940098
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1940099
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1940098
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1940097
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1940097
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1940097
SM 2120 B / E31780	True Color measured at 450 nm	1940073, 1940076, 1940077, 1940078, 1940079
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1940073, 1940076, 1940077, 1940078, 1940079
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1940074, 1940080, 1940081, 1940082, 1940083, 1940089
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1940097
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1940097

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	10/26/2017			10/26/2017 16:10	DeAsia Armster	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
EPA 200.7 Rev. 4.4	10/26/2017	10/26/2017	Elliott D. Healy	10/27/2017	Betina Topolski	1940100
EPA 200.8 Rev. 5.4	10/26/2017	10/26/2017	Elliott D. Healy	11/01/2017	Nadine Brooks	1940100
	10/26/2017	10/26/2017	Elliott D. Healy	11/03/2017	Nadine Brooks	1940100
	10/26/2017	11/09/2017	Elliott D. Healy	11/13/2017	Nadine Brooks	1940100
EPA 300.0 Rev. 2.1	10/26/2017			10/31/2017	Julia Storbeck	1940073, 1940076
	10/26/2017			11/01/2017	Julia Storbeck	1940077, 1940078, 1940079
EPA 350.1 Rev. 2.0	10/26/2017			10/27/2017	Sofia Elnemr	1940080
	10/26/2017			11/01/2017	Sofia Elnemr	1940074, 1940083, 1940089
	10/26/2017			11/03/2017	Sofia Elnemr	1940081, 1940082
EPA 351.2 Rev. 2.0	10/26/2017	11/01/2017	Adrian Shelby	11/02/2017	Joseph Suarez	1940074, 1940081, 1940082, 1940083, 1940089
	10/26/2017	11/03/2017	Adrian Shelby	11/06/2017	Joseph Suarez	1940080
EPA 353.2 Rev. 2.0	10/26/2017			10/27/2017	Beverly Y. Sanders	1940080
	10/26/2017			10/31/2017	Beverly Y. Sanders	1940074, 1940082, 1940083, 1940089
	10/26/2017			11/06/2017	Beverly Y. Sanders	1940081
EPA 365.1 Rev. 2.0	10/26/2017	10/27/2017	Sima Feizi	10/30/2017	Lipi Saha	1940074, 1940080, 1940081, 1940082, 1940083, 1940089
EPA 365.1 Rev. 2.0 dissolved	10/26/2017			10/26/2017 14:01	Megan Treadwell	1940086
	10/26/2017			10/26/2017 14:23	Megan Treadwell	1940084
	10/26/2017			10/26/2017 14:36	Megan Treadwell	1940075
	10/26/2017			10/26/2017 14:37	Megan Treadwell	1940085
	10/26/2017			10/26/2017 15:42	Megan Treadwell	1940087, 1940090
EPA 8270D	10/26/2017	10/31/2017	Fe-Val Siddell	11/03/2017	Vandana T. Nagar	1940099
	10/26/2017	10/31/2017	Rasheda Ghaffari	11/09/2017	Goutam Palui	1940098
EPA 8276	10/26/2017	10/31/2017	Rasheda Ghaffari	11/10/2017	John P. Burgos	1940098
EPA 8321B	10/26/2017	10/27/2017	Juyoung Kim	10/27/2017	Juyoung Kim	1940097
	10/26/2017	10/30/2017	Juyoung Kim	10/31/2017	Juyoung Kim	1940097
SM 2120 B	10/26/2017			10/26/2017 16:15	Tanya Welborn	1940073, 1940076
	10/26/2017			10/26/2017 16:17	Tanya Welborn	1940078
	10/26/2017			10/26/2017 16:18	Tanya Welborn	1940079
	10/26/2017			10/26/2017 17:04	Tanya Welborn	1940077
SM 2320 B-97	10/26/2017			10/27/2017	Dale L. Simmons	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
SM 2540 C-97	10/26/2017			10/27/2017	DeAsia Armster	1940073, 1940076, 1940077, 1940078, 1940079
SM 2540 D-97	10/26/2017			10/27/2017	DeAsia Armster	1940073, 1940076, 1940077, 1940078, 1940079, 1940088
SM 4500 F-C-97	10/26/2017			10/31/2017	Dale L. Simmons	1940073, 1940076, 1940077, 1940078, 1940079, 1940088

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	10/26/2017			11/04/2017	Ping Hua	1940074, 1940080, 1940081, 1940082, 1940083, 1940089
USGS O-2060-01	10/26/2017	10/31/2017	Hoor Shaik	11/03/2017	Julie Michelle Frank	1940097
	10/26/2017	11/16/2017	Hoor Shaik	11/20/2017	Julie Michelle Frank	1940097