

Chemical Analysis Report

SE-DIST-2017-09-29-01

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

Event Description: **SMP-G4 Broward Red**

Request ID: **RQ-2017-09-11-14**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

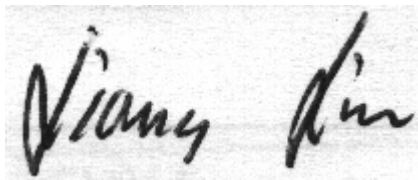
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact

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Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 25-OCT-2017 11:35

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

NON-CONFORMANCE REPORT INCLUDED

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: C-12 @ 9th Ave & Sunrise

Collection Date/Time: 09/28/2017 09:40

Field ID: G4SEB128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932854	EPA 180.1 Rev. 2.0	Turbidity	4.7	A	NTU	P332489	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P332576	
		Sulfate	5.4		mg SO4/L	P332578	
	SM 2120 B	Color (true)	54		PCU	P332472	
	SM 2320 B-97	Total Alkalinity	154		mg CaCO3/L	P332668	
	SM 2540 C-97	TDS	228		mg/L	P333014	
	SM 2540 D-97	TSS	4	I	mg/L	P332950	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P332671	MS
1932855	EPA 350.1 Rev. 2.0	Ammonia-N	0.066		mg N/L	P332824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P332973	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P332625	
	SM 5310 B-00	Organic Carbon	8.3		mg C/L	P332874	
1932856	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P332477	
1932878	EPA 8321B	Sucralose**	0.067		ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0059	I	ug/L	P332453	
		Diuron	0.045		ug/L	P332453	
		Fenuron	0.019	I	ug/L	P332453	
		Imidacloprid	0.029		ug/L	P332453	
		Bentazon	0.017		ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0020	U	ug/L	P332453	
		Carbamazepine**	7.5E-04	I	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	0.028		ug/L	P332453	

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: New River North Fork @ Sunrise

Collection Date/Time: 09/28/2017 10:10

Field ID: G4SEB064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932851	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P332488	
	SM 2320 B-97	Total Alkalinity	174		mg CaCO3/L	P332668	
	SM 2540 D-97	TSS	3	I	mg/L	P332954	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P332671	MS
1932852	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P332824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P332973	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.088		mg P/L	P332625	
	SM 5310 B-00	Organic Carbon	7.1		mg C/L	P332874	
1932853	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.049		mg P/L	P332476	

Field ID: G4SEB064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932877	EPA 8321B	Sucralose**	0.092		ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0045	I	ug/L	P332453	
		Diuron	0.23		ug/L	P332453	
		Fenuron	0.026	I	ug/L	P332453	
		Imidacloprid	0.096		ug/L	P332453	
		Bentazon	0.018		ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0026	I	ug/L	P332453	
		Carbamazepine**	9.2E-04	I	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	0.012		ug/L	P332453	

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: New R. @ Andrews Ave

Collection Date/Time: 09/28/2017 10:30

Field ID: 28030521

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932845	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P332488	
	SM 2320 B-97	Total Alkalinity	199		mg CaCO3/L	P332668	
	SM 2540 D-97	TSS	3	IA	mg/L	P332955	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P332671	MS
1932846	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P332824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P332973	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P332860	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P332625	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P332874	
1932847	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P332476	
1932875	EPA 8321B	Sucralose**	0.11		ug/L	P332452	
	USGS O-2060-01	2,4-D	0.055		ug/L	P332453	
		Diuron	0.033		ug/L	P332453	
		Fenuron	0.0080	U	ug/L	P332453	
		Imidacloprid	0.067		ug/L	P332453	
		Bentazon	0.023		ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0020	U	ug/L	P332453	
		Carbamazepine**	0.0011	I	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	0.034		ug/L	P332453	

Ref. Method and Comment:

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

USGS O-2060-01: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: North New River Canal @ University

Collection Date/Time: 09/28/2017 11:30

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932842	EPA 180.1 Rev. 2.0	Turbidity	7.6	Y	NTU	P332488	
	EPA 300.0 Rev. 2.1	Chloride	60		mg Cl/L	P332575	
		Sulfate	6.3	Y	mg SO4/L	P332577	
	SM 2120 B	Color (true)	59	Y	PCU	P332472	
	SM 2320 B-97	Total Alkalinity	183	Y	mg CaCO3/L	P332668	
	SM 2540 C-97	TDS	322	AY	mg/L	P333014	
	SM 2540 D-97	TSS	15	AY	mg/L	P332950	
	SM 4500 F-C-97	Fluoride	0.29		mg F/L	P332671	MS
1932843	EPA 350.1 Rev. 2.0	Ammonia-N	0.29	Y	mg N/L	P332824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3	Y	mg N/L	P332596	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024	Y	mg N/L	P332860	
	EPA 365.1 Rev. 2.0	Total-P	0.022	Y	mg P/L	P332625	
	SM 5310 B-00	Organic Carbon	16	Y	mg C/L	P332874	
1932844	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	UY	mg P/L	P332476	
1932874	EPA 8321B	Glyphosate**	0.50	UY	ug/L	P332309	
		Pyraclostrobin**	0.0020	UY	ug/L	P332315	
		Sucralose**	0.034	IY	ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0027	IY	ug/L	P332453	
		Diuron	0.026	Y	ug/L	P332453	
		Fenuron	0.0080	UY	ug/L	P332453	
		Imidacloprid	0.18	Y	ug/L	P332453	
		Bentazon	0.023	YJ	ug/L	P332453	MS
		Linuron	0.0040	UY	ug/L	P332453	
		Acetaminophen**	0.0080	UY	ug/L	P332453	
		MCP	0.0020	UY	ug/L	P332453	
		Carbamazepine**	4.0E-04	UY	ug/L	P332453	
		Triclopyr**	0.0040	UY	ug/L	P332453	
		Primidone**	0.0040	UY	ug/L	P332453	
		Fluridone**	0.012	Y	ug/L	P332453	
	EPA 8270D	Aldrin	4.4	UY	ng/L	P332509	
		Alpha-BHC	2.2	UY	ng/L	P332509	
		Beta-BHC	4.4	UY	ng/L	P332509	
		Delta-BHC	4.4	UY	ng/L	P332509	
		Gamma-BHC	4.4	UY	ng/L	P332509	
		Carbophenothion	4.4	UY	ng/L	P332509	
		Chlorothalonil	2.2	UY	ng/L	P332509	RPD
		Cypermethrin	22	UY	ng/L	P332509	
		DDD-p,p'	3.3	UY	ng/L	P332509	
		DDE-p,p'	3.3	UY	ng/L	P332509	
		DDT-p,p'	3.3	UY	ng/L	P332509	
		Dieldrin	4.4	UY	ng/L	P332509	
		Endosulfan I	4.4	UY	ng/L	P332509	
		Endosulfan II	4.4	UY	ng/L	P332509	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932879	EPA 8270D	Endosulfan Sulfate	2.2	UY	ng/L	P332509	
		Endrin	2.2	UY	ng/L	P332509	
		Endrin Aldehyde	2.2	UY	ng/L	P332509	
		Heptachlor	1.6	UY	ng/L	P332509	
		Heptachlor Epoxide	2.2	UY	ng/L	P332509	
		Methoxychlor	4.4	UY	ng/L	P332509	
		Mirex	2.2	UY	ng/L	P332509	
		Permethrin	11	UY	ng/L	P332509	
		Trifluralin	1.1	UY	ng/L	P332509	
		Alpha-Chlordane	1.1	UY	ng/L	P332509	
		Gamma-Chlordane	1.1	UY	ng/L	P332509	
		Endrin Ketone	2.2	UY	ng/L	P332509	
		Dicofol	33	UYJ	ng/L	P332509	CCV
		Chlordane**	2.7	UY	ng/L	P332509	
		Toxaphene**	14	UY	ng/L	P332509	
1932880	EPA 8270D	Alachlor	0.26	UY	ng/L	P332422	
		Ametryn	2.3	Y	ng/L	P332422	
		Atrazine	32	Y	ng/L	P332422	
		Atrazine Desethyl	3.1	IYJ	ng/L	P332422	RPD
		Azinphos Methyl	2.3	UY	ng/L	P332422	
		Bromacil	0.51	UY	ng/L	P332422	
		Butylate	0.41	UY	ng/L	P332422	
		Chlorpyrifos Ethyl	0.26	UY	ng/L	P332422	
		Chlorpyrifos Methyl	0.10	UY	ng/L	P332422	
		Demeton	2.1	UY	ng/L	P332422	
		Diazinon	0.13	UY	ng/L	P332422	
		Disulfoton	0.51	UY	ng/L	P332422	
		EPTC	1.3	UY	ng/L	P332422	
		Ethion	0.15	UY	ng/L	P332422	
		Ethoprop	0.10	UY	ng/L	P332422	
		Fenamiphos	0.26	UY	ng/L	P332422	
		Fipronil	0.47	IY	ng/L	P332422	
		Fipronil Sulfide	0.18	IY	ng/L	P332422	
		Fipronil Sulfone	0.41	IY	ng/L	P332422	
		Hexazinone	2.1	Y	ng/L	P332422	
		Malathion	0.36	UY	ng/L	P332422	
		Metribuzin	0.21	UYJ	ng/L	P332422	RPD
		Mevinphos	0.51	UY	ng/L	P332422	
		Molinate	0.31	UY	ng/L	P332422	
		Norflurazon	0.51	UY	ng/L	P332422	
		Pendimethalin	1.0	UY	ng/L	P332422	
		Phorate	0.26	UY	ng/L	P332422	
		Prometon	0.92	UY	ng/L	P332422	
		Prometryn	0.21	UY	ng/L	P332422	
		Simazine	1.3	IY	ng/L	P332422	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932880	EPA 8270D	Terbufos	0.10	UY	ng/L	P332422	
		Terbuthylazine	0.44	UY	ng/L	P332422	
		Fonofos	0.21	UY	ng/L	P332422	
		Metalaxyl	0.21	UY	ng/L	P332422	
		Metolachlor	0.26	UY	ng/L	P332422	
		Acetochlor	0.26	UY	ng/L	P332422	
		Cyanazine	0.51	UYJ	ng/L	P332422	RPD
		Parathion Ethyl	0.26	UY	ng/L	P332422	
		Parathion Methyl	0.26	UY	ng/L	P332422	
1932881	EPA 200.7 Rev. 4.4	Calcium	58.7		mg/L	P332647	
		Iron	390		ug/L	P332647	
		Magnesium	10.2		mg/L	P332647	
		Potassium	3.2		mg/L	P332647	
		Sodium	39.0		mg/L	P332647	
		Zinc	5.0	U	ug/L	P332647	
	EPA 200.8 Rev. 5.4	Arsenic	1.16		ug/L	P332647	
		Cadmium	0.020	U	ug/L	P332647	
		Chromium	0.44	I	ug/L	P332647	
		Copper	0.86		ug/L	P332647	
		Lead	0.50		ug/L	P332647	
		Nickel	0.24	I	ug/L	P332867	
		Silver	0.010	U	ug/L	P332647	

Ref. Method and Comment:

EPA 180.1 Rev. 2.0: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 300.0 Rev. 2.1: Sulfate: Sample temperature was outside the acceptable range when received at the laboratory.
SM 2120 B: Sample temperature was outside the acceptable range when received at the laboratory.
SM 2320 B-97: Sample temperature was outside the acceptable range when received at the laboratory.
SM 2540 C-97: Sample temperature was outside the acceptable range when received at the laboratory.
SM 2540 D-97: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 350.1 Rev. 2.0: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 351.2 Rev. 2.0: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 353.2 Rev. 2.0: NO2NO3-N: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 365.1 Rev. 2.0: Total-P: Sample temperature was outside the acceptable range when received at the laboratory.
SM 5310 B-00: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 365.1 Rev. 2.0 dissolved: Sample temperature was outside the acceptable range when received at the laboratory.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
USGS O-2060-01: Y - Sample was received with inadequate sample preservation; see NCR report. Refer to the narrative for an explanation of QC Codes.
USGS O-2060-01: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample. Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8270D: Refer to the narrative for an explanation of QC Codes. Y - due to improper preservation; see NCR report.
EPA 8276: The second LFB was lost in preparation. Y - due to improper preservation; see NCR report.
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. Y - due to improper preservation; see NCR report.

Sample Location: Flaringo Rd & Stirling

Collection Date/Time: 09/28/2017 12:00

Field ID: 28030548

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932848	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P332488	
	EPA 300.0 Rev. 2.1	Chloride	55		mg Cl/L	P332576	
		Sulfate	5.6		mg SO4/L	P332578	

Field ID: 28030548

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932848	SM 2120 B	Color (true)	52	A	PCU	P332472	
	SM 2320 B-97	Total Alkalinity	256		mg CaCO3/L	P332668	
	SM 2540 C-97	TDS	380		mg/L	P333014	
	SM 2540 D-97	TSS	2	I	mg/L	P332950	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P332671	MS
1932849	EPA 350.1 Rev. 2.0	Ammonia-N	0.056		mg N/L	P332824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P332973	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P332861	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P332625	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P332874	
1932850	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P332476	
1932876	EPA 8321B	Sucralose**	0.22		ug/L	P332452	
	USGS O-2060-01	2,4-D	0.0023	I	ug/L	P332453	
		Diuron	0.0026	I	ug/L	P332453	
		Fenuron	0.0080	U	ug/L	P332453	
		Imidacloprid	0.0068		ug/L	P332453	
		Bentazon	0.012		ug/L	P332453	MS
		Linuron	0.0040	U	ug/L	P332453	
		Acetaminophen**	0.0080	U	ug/L	P332453	
		MCP	0.0020	U	ug/L	P332453	
		Carbamazepine**	4.3E-04	I	ug/L	P332453	
		Triclopyr**	0.0040	U	ug/L	P332453	
		Primidone**	0.0040	U	ug/L	P332453	
		Fluridone**	0.050		ug/L	P332453	

Ref. Method and Comment:

USGS O-2060-01: MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample.

Non-Conformance Report

NCR ID: 6657

Event(s)	Job(s)	Sample(s)	Test(s)
SE-DIST-2017-09-29-01	TLH-2017-09-29-20	1932842	
SE-DIST-2017-09-29-01	TLH-2017-09-29-20	1932843	
SE-DIST-2017-09-29-01	TLH-2017-09-29-20	1932844	
SE-DIST-2017-09-29-01	TLH-2017-09-29-24	1932874	
SE-DIST-2017-09-29-01	TLH-2017-09-29-25	1932879	
SE-DIST-2017-09-29-01	TLH-2017-09-29-25	1932880	
SE-DIST-2017-09-29-01	TLH-2017-09-29-26	1932881	

NCR Type: SHIPPING/RECEIVING

NCR Category: Preservation Not Intact

Observation: Sample(s) received outside the acceptable temperature range. Cooler temperature was 6.6 deg. C upon receipt.

Resolution: Customers (Matthew Sewell, Drew Liddick, James Pitts) notified by email. Data will be qualified as appropriate.

Authorized by/Date: Kerry Tate 10/11/2017

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry Colin Wright (850) 245-8085
Biology Cheryl Swanson (850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332488

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332489

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332647

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: P332647

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
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332867

Component	Result	Code	Units
Nickel	0.20	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332575

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332576

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332577

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332578

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332824

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332596

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332973

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332860

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332625

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332476

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

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

Reference Method: EPA 8270D
Batch ID: P332422

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
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.0	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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P332509

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P332509

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

Reference Method: EPA 8276
Batch ID: P332509

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

Reference Method: EPA 8321B
Batch ID: P332309

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: EPA 8321B
Batch ID: P332315

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P332452

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P332472

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P332668

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

Reference Method: SM 2540 C-97
Batch ID: P333014

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332950

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332954

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332955

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P332874

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

Reference Method: USGS O-2060-01
Batch ID: P332453

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P332453

Component	Result	Code	Units
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
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	109		P	85 - 115
Magnesium	110		P	85 - 115
Potassium	102		P	85 - 115
Sodium	103		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	99.2		P	85 - 115
Chromium	96.0		P	85 - 115
Copper	96.6		P	85 - 115
Lead	96.5		P	85 - 115
Silver	95.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332867

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332575

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332576

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332577

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332578

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332824

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332596

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332973

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332860

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: P332861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332625

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332476

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.7		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

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

Reference Method: EPA 8270D
Batch ID: P332422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	88.6	89.6	P/P	78 - 118
Alachlor	86.7	94.5	P/P	77 - 119
Ametryn	90.0	98.6	P/P	61 - 136
Atrazine	87.3	98.0	P/P	73 - 120
Atrazine Desethyl	93.4	57.3	P/P	16 - 122
Azinphos Methyl	121	106	P/P	69 - 186
Bromacil	77.9	80.7	P/P	40 - 125
Butylate	56.8	59.4	P/P	32 - 87.0
Chlorpyrifos Ethyl	93.4	91.0	P/P	53 - 110
Chlorpyrifos Methyl	99.7	88.4	P/P	31 - 119
Cyanazine	112	81.2	P/P	36 - 224
Demeton	98.0	90.2	P/P	39 - 122
Diazinon	84.4	88.1	P/P	75 - 119
Disulfoton	110	93.1	P/P	42 - 139
EPTC	50.2	51.8	P/P	33 - 96.0
Ethion	88.7	96.0	P/P	63 - 127
Ethoprop	81.3	71.7	P/P	65 - 107
Fenamiphos	107	101	P/P	64 - 137
Fipronil	98.7	98.3	P/P	60 - 126
Fipronil Sulfide	99.5	90.6	P/P	58 - 124
Fipronil Sulfone	87.5	89.8	P/P	57 - 126
Fonofos	91.5	78.4	P/P	65 - 111
Hexazinone	82.2	88.8	P/P	46 - 151
Malathion	100	101	P/P	68 - 132
Metaxyl	84.9	82.0	P/P	51 - 132
Metolachlor	83.0	95.8	P/P	78 - 119
Metribuzin	114	78.7	P/P	58 - 148
Mevinphos	85.3	69.2	P/P	34 - 128
Molinate	56.4	59.0	P/P	44 - 101
Norflurazon	87.2	93.7	P/P	63 - 129
Parathion Ethyl	87.3	93.1	P/P	80 - 109
Parathion Methyl	106	96.1	P/P	74 - 125
Pendimethalin	81.3	86.7	P/P	48 - 134
Phorate	81.7	73.5	P/P	52 - 119
Prometon	82.2	91.0	P/P	69 - 124
Prometryn	96.1	103	P/P	66 - 124
Simazine	93.8	88.0	P/P	61 - 134
Terbufos	91.3	83.8	P/P	58 - 115
Terbutylazine	81.5	95.5	P/P	77 - 113

Reference Method: EPA 8270D
Batch ID: P332509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	37.9	46.9	P/P	26 - 88.0
Alpha-BHC	76.2	76.6	P/P	63 - 114

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P332509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alpha-Chlordane	75.8	74.0	P/P	56 - 117
Beta-BHC	91.7	87.8	P/P	57 - 138
Carbophenothion	73.9	81.8	P/P	36 - 148
Chlorothalonil	59.9	59.2	P/P	26 - 173
Cypermethrin	65.4	63.8	P/P	42 - 159
DDD-p,p'	88.7	83.8	P/P	62 - 126
DDE-p,p'	80.7	78.3	P/P	53 - 115
DDT-p,p'	79.8	78.4	P/P	54 - 117
Delta-BHC	87.9	84.4	P/P	68 - 158
Dicofol	45.7	41.5	P/P	25 - 114
Dieldrin	81.4	78.7	P/P	59 - 126
Endosulfan I	79.4	76.8	P/P	62 - 138
Endosulfan II	86.9	78.9	P/P	61 - 150
Endosulfan Sulfate	77.1	79.8	P/P	63 - 132
Endrin	81.7	81.2	P/P	49 - 148
Endrin Aldehyde	81.9	80.4	P/P	50 - 144
Endrin Ketone	78.9	80.9	P/P	66 - 122
Gamma-BHC	88.4	88.3	P/P	60 - 137
Gamma-Chlordane	74.9	73.3	P/P	54 - 113
Heptachlor	65.7	67.8	P/P	43 - 104
Heptachlor Epoxide	78.1	76.3	P/P	64 - 118
Methoxychlor	85.5	85.7	P/P	63 - 129
Mirex	68.7	70.6	P/P	39 - 93.0
Permethrin	74.6	75.9	P/P	51 - 123
Trifluralin	131	136	P/P	35 - 187

Reference Method: EPA 8276
Batch ID: P332509

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	88.6		P	48 - 121
Toxaphene	95.9		P	43 - 135

Reference Method: EPA 8321B
Batch ID: P332309

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	117		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332315

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

Reference Method: EPA 8321B
Batch ID: P332452

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	77.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P332668

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

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P332874

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	69.0		P	40 - 150
Acetaminophen	99.8		P	30 - 150
Bentazon	45.4		P	40 - 150
Carbamazepine	110		P	40 - 150
Diuron	99.9		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	101		P	40 - 150
Imidacloprid	99.9		P	40 - 160
Linuron	98.8		P	40 - 150
MCP	68.5		P	40 - 150
Primidone	103		P	40 - 150
Triclopyr	68.9		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932402	Calcium	104		P	80 - 120
1932402	Iron	106		P	80 - 120
1932402	Magnesium	108		P	80 - 120
1932402	Potassium	99.6		P	80 - 120
1932402	Sodium	100		P	80 - 120
1932402	Zinc	110		P	80 - 120
1932897	Calcium	99.4		P	80 - 120
1932897	Iron	104	102	P/P	80 - 120
1932897	Magnesium	104	101	P/P	80 - 120
1932897	Potassium	97.2	93.6	P/P	80 - 120
1932897	Sodium	97.6		P	80 - 120
1932897	Zinc	101	97.7	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932402	Arsenic	97.5		P	80 - 120
1932402	Cadmium	99.6		P	80 - 120
1932402	Chromium	95.7		P	80 - 120
1932402	Copper	94.0		P	80 - 120
1932402	Lead	96.1		P	80 - 120
1932402	Silver	94.2		P	80 - 120
1932897	Arsenic	98.5	99.6	P/P	80 - 120
1932897	Cadmium	99.9	103	P/P	80 - 120
1932897	Chromium	96.2	97.6	P/P	80 - 120
1932897	Copper	93.3	95.0	P/P	80 - 120
1932897	Lead	97.8	99.1	P/P	80 - 120
1932897	Silver	95.4	96.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332867

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932615	Nickel	101	99.5	P/P	80 - 120
1932908	Nickel	99.0		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332575

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932317	Chloride	96.7		P	90 - 110
1932712	Chloride	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332576

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932931	Chloride	97.4		P	90 - 110
1932932	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932317	Sulfate	97.5		P	90 - 110
1932712	Sulfate	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932931	Sulfate	99.2		P	90 - 110
1932932	Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332824

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932787	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932744	Kjeldahl Nitrogen	97.6	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932846	Kjeldahl Nitrogen	101	94.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932714	NO2NO3-N	106	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932852	NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332625

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932849	Total-P	99.2	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932850	O-Phosphate-P	93.0	95.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932944	O-Phosphate-P	97.3	98.7	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P332422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932880	Acetochlor	91.6	91.2	P/P	74 - 123
1932880	Alachlor	89.3	87.8	P/P	73 - 124
1932880	Ametryn	97.3	87.9	P/P	56 - 149
1932880	Atrazine Desethyl	79.0	83.1	P/P	12 - 103

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P332422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932880	Azinphos Methyl	118	117	P/P	60 - 202
1932880	Bromacil	91.6	79.5	P/P	42 - 133
1932880	Butylate	46.6	51.0	P/P	10 - 85.0
1932880	Chlorpyrifos Ethyl	84.7	82.7	P/P	53 - 113
1932880	Chlorpyrifos Methyl	101	104	P/P	40 - 115
1932880	Cyanazine	112	113	P/P	22 - 210
1932880	Demeton	93.8	95.6	P/P	17 - 149
1932880	Diazinon	98.5	101	P/P	72 - 124
1932880	Disulfoton	107	113	P/P	43 - 139
1932880	EPTC	41.7	41.3	P/P	10 - 86.0
1932880	Ethion	92.2	87.3	P/P	65 - 131
1932880	Ethoprop	90.0	97.3	P/P	59 - 110
1932880	Fenamiphos	101	96.5	P/P	57 - 138
1932880	Fipronil	116	107	P/P	40 - 130
1932880	Fipronil Sulfide	102	94.0	P/P	36 - 128
1932880	Fipronil Sulfone	92.9	80.8	P/P	16 - 145
1932880	Fonofos	92.5	95.8	P/P	60 - 112
1932880	Hexazinone	89.8	87.7	P/P	69 - 142
1932880	Malathion	97.8	101	P/P	68 - 132
1932880	Metalaxyl	93.0	86.2	P/P	66 - 118
1932880	Metolachlor	86.3	82.6	P/P	71 - 124
1932880	Metribuzin	130	135	P/P	61 - 140
1932880	Mevinphos	85.4	89.4	P/P	38 - 130
1932880	Molinate	54.8	58.1	P/P	23 - 99.0
1932880	Norflurazon	90.6	84.0	P/P	39 - 139
1932880	Parathion Ethyl	88.4	91.4	P/P	75 - 111
1932880	Parathion Methyl	109	110	P/P	64 - 130
1932880	Pendimethalin	93.7	93.8	P/P	26 - 173
1932880	Phorate	85.9	97.3	P/P	43 - 127
1932880	Prometon	91.7	85.7	P/P	50 - 144
1932880	Prometryn	107	100	P/P	69 - 126
1932880	Simazine	84.7	101	P/P	51 - 152
1932880	Terbufos	89.8	97.2	P/P	54 - 125
1932880	Terbuthylazine	86.7	86.5	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P332509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932417	Aldrin	45.1	46.9	P/P	22 - 97.0
1932417	Alpha-BHC	63.8	76.4	P/P	43 - 132
1932417	Alpha-Chlordane	73.3	74.5	P/P	36 - 126
1932417	Beta-BHC	83.4	85.7	P/P	41 - 150
1932417	Carbophenothion	77.8	82.4	P/P	13 - 196
1932417	Chlorothalonil	77.5	57.3	P/P	10 - 266
1932417	Cypermethrin	75.1	70.7	P/P	37 - 161
1932417	DDD-p,p'	84.5	83.7	P/P	44 - 131
1932417	DDE-p,p'	76.1	79.5	P/P	32 - 127
1932417	DDT-p,p'	78.4	77.7	P/P	45 - 116
1932417	Delta-BHC	93.3	88.6	P/P	50 - 201
1932417	Dicofol	41.4	42.0	P/P	10 - 100
1932417	Dieldrin	75.4	78.7	P/P	39 - 142

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P332509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932417	Endosulfan I	75.0	77.3	P/P	51 - 139
1932417	Endosulfan II	75.6	73.9	P/P	49 - 155
1932417	Endosulfan Sulfate	78.1	76.5	P/P	54 - 136
1932417	Endrin	78.4	80.1	P/P	38 - 141
1932417	Endrin Aldehyde	74.4	78.4	P/P	14 - 152
1932417	Endrin Ketone	77.5	78.3	P/P	60 - 128
1932417	Gamma-BHC	76.0	84.7	P/P	48 - 157
1932417	Gamma-Chlordane	72.9	73.8	P/P	35 - 123
1932417	Heptachlor	67.5	70.1	P/P	25 - 112
1932417	Heptachlor Epoxide	74.9	75.6	P/P	48 - 125
1932417	Methoxychlor	85.4	88.7	P/P	52 - 127
1932417	Mirex	70.1	74.1	P/P	25 - 108
1932417	Permethrin	78.8	88.0	P/P	46 - 133
1932417	Trifluralin	130	133	P/P	29 - 254

Reference Method: EPA 8276
Batch ID: P332509

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931883	Chlordane	84.0	91.7	P/P	44 - 134
1931883	Toxaphene	94.4	101	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P332309

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931647	Glyphosate	100	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932874	Pyraclostrobin	98.6	93.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332452

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932875	Sucralose	149	85.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932743	Fluoride	106	106	F/F	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P332874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932889	Organic Carbon	93.4	94.6	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P332453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932874	2,4-D	62.2	67.3	P/P	40 - 150
1932874	Acetaminophen	76.5	84.4	P/P	30 - 150
1932874	Bentazon	30.0	36.6	F/F	40 - 150
1932874	Carbamazepine	80.6	84.2	P/P	40 - 150
1932874	Diuron	63.6	64.9	P/P	40 - 150
1932874	Fenuron	77.9	83.3	P/P	40 - 150
1932874	Fluridone	59.2	50.5	P/P	40 - 150
1932874	Linuron	86.6	88.2	P/P	40 - 150
1932874	MCP	50.8	53.2	P/P	40 - 150
1932874	Primidone	86.2	87.6	P/P	40 - 150
1932874	Triclopyr	47.3	48.7	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932780	Turbidity	1.32	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932854	Turbidity	7.59	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932897	Calcium	2.13	Spike	P	0 - 20
1932897	Iron	1.65	Spike	P	0 - 20
1932897	Magnesium	2.01	Spike	P	0 - 20
1932897	Potassium	2.43	Spike	P	0 - 20
1932897	Sodium	1.62	Spike	P	0 - 20
1932897	Zinc	3.34	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932897	Arsenic	1.07	Spike	P	0 - 20
1932897	Cadmium	3.00	Spike	P	0 - 20
1932897	Chromium	1.53	Spike	P	0 - 20
1932897	Copper	1.70	Spike	P	0 - 20
1932897	Lead	1.26	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932897	Silver	0.944	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932615	Nickel	1.13	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932317	Chloride	0.396	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332576

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932932	Chloride	1.65	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932317	Sulfate	4.04	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932932	Sulfate	9.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932787	Ammonia-N	1.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932744	Kjeldahl Nitrogen	4.79	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932846	Kjeldahl Nitrogen	3.81	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932714	NO2NO3-N	0.952	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932852	NO2NO3-N	0.264	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932849	Total-P	3.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932850	O-Phosphate-P	2.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932944	O-Phosphate-P	1.43	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P332422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932880	Acetochlor	0.423	Spike	P	0 - 30
1932880	Alachlor	1.76	Spike	P	0 - 30
1932880	Ametryn	6.33	Spike	P	0 - 30
1932880	Atrazine	1.12	Spike	P	0 - 30
1932880	Atrazine Desethyl	4.07	Spike	P	0 - 30
1932880	Azinphos Methyl	0.322	Spike	P	0 - 30
1932880	Bromacil	14.1	Spike	P	0 - 30
1932880	Butylate	9.15	Spike	P	0 - 30
1932880	Chlorpyrifos Ethyl	2.38	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932880	Chlorpyrifos Methyl	2.58	Spike	P	0 - 30
1932880	Cyanazine	1.06	Spike	P	0 - 30
1932880	Demeton	1.90	Spike	P	0 - 30
1932880	Diazinon	2.67	Spike	P	0 - 30
1932880	Disulfoton	5.45	Spike	P	0 - 30
1932880	EPTC	0.846	Spike	P	0 - 30
1932880	Ethion	5.43	Spike	P	0 - 30
1932880	Ethoprop	7.83	Spike	P	0 - 30
1932880	Fenamiphos	4.61	Spike	P	0 - 30
1932880	Fipronil	6.82	Spike	P	0 - 30
1932880	Fipronil Sulfide	7.30	Spike	P	0 - 30
1932880	Fipronil Sulfone	11.4	Spike	P	0 - 30
1932880	Fonofos	3.50	Spike	P	0 - 30
1932880	Hexazinone	1.93	Spike	P	0 - 30
1932880	Malathion	3.18	Spike	P	0 - 30
1932880	Metalaxyl	7.53	Spike	P	0 - 30
1932880	Metolachlor	4.45	Spike	P	0 - 30
1932880	Metribuzin	3.86	Spike	P	0 - 30
1932880	Mevinphos	4.62	Spike	P	0 - 30
1932880	Molinate	5.81	Spike	P	0 - 30
1932880	Norflurazon	7.61	Spike	P	0 - 30
1932880	Parathion Ethyl	3.34	Spike	P	0 - 30
1932880	Parathion Methyl	1.82	Spike	P	0 - 30
1932880	Pendimethalin	0.0670	Spike	P	0 - 30
1932880	Phorate	12.4	Spike	P	0 - 30
1932880	Prometon	6.75	Spike	P	0 - 30
1932880	Prometryn	6.32	Spike	P	0 - 30
1932880	Simazine	12.9	Spike	P	0 - 30
1932880	Terbufos	7.98	Spike	P	0 - 30
1932880	Terbutylazine	0.249	Spike	P	0 - 30
LFB	Acetochlor	1.08	LCS	P	0 - 30
LFB	Alachlor	8.63	LCS	P	0 - 30
LFB	Ametryn	9.12	LCS	P	0 - 30
LFB	Atrazine	11.5	LCS	P	0 - 30
LFB	Atrazine Desethyl	48.0	LCS	F	0 - 30
LFB	Azinphos Methyl	13.1	LCS	P	0 - 30
LFB	Bromacil	3.56	LCS	P	0 - 30
LFB	Butylate	4.50	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.68	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	11.9	LCS	P	0 - 30
LFB	Cyanazine	31.8	LCS	F	0 - 30
LFB	Demeton	8.31	LCS	P	0 - 30
LFB	Diazinon	4.34	LCS	P	0 - 30
LFB	Disulfoton	16.3	LCS	P	0 - 30
LFB	EPTC	3.15	LCS	P	0 - 30
LFB	Ethion	7.95	LCS	P	0 - 30
LFB	Ethoprop	12.5	LCS	P	0 - 30
LFB	Fenamiphos	6.05	LCS	P	0 - 30
LFB	Fipronil	0.402	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.36	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.52	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fonofos	15.5	LCS	P	0 - 30
LFB	Hexazinone	7.67	LCS	P	0 - 30
LFB	Malathion	0.135	LCS	P	0 - 30
LFB	Metalaxyl	3.51	LCS	P	0 - 30
LFB	Metolachlor	14.2	LCS	P	0 - 30
LFB	Metribuzin	36.9	LCS	F	0 - 30
LFB	Mevinphos	20.9	LCS	P	0 - 30
LFB	Molinate	4.50	LCS	P	0 - 30
LFB	Norflurazon	7.26	LCS	P	0 - 30
LFB	Parathion Ethyl	6.50	LCS	P	0 - 30
LFB	Parathion Methyl	9.71	LCS	P	0 - 30
LFB	Pendimethalin	6.39	LCS	P	0 - 30
LFB	Phorate	10.6	LCS	P	0 - 30
LFB	Prometon	10.2	LCS	P	0 - 30
LFB	Prometryn	6.70	LCS	P	0 - 30
LFB	Simazine	6.37	LCS	P	0 - 30
LFB	Terbufos	8.63	LCS	P	0 - 30
LFB	Terbutylazine	15.8	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P332509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932417	Aldrin	3.97	Spike	P	0 - 30
1932417	Alpha-BHC	18.0	Spike	P	0 - 30
1932417	Alpha-Chlordane	1.72	Spike	P	0 - 30
1932417	Beta-BHC	2.71	Spike	P	0 - 30
1932417	Carbophenothion	5.77	Spike	P	0 - 30
1932417	Chlorothalonil	30.1	Spike	F	0 - 30
1932417	Cypermethrin	5.99	Spike	P	0 - 30
1932417	DDD-p,p'	0.955	Spike	P	0 - 30
1932417	DDE-p,p'	4.38	Spike	P	0 - 30
1932417	DDT-p,p'	0.918	Spike	P	0 - 30
1932417	Delta-BHC	5.24	Spike	P	0 - 30
1932417	Dicofol	1.54	Spike	P	0 - 30
1932417	Dieldrin	4.21	Spike	P	0 - 30
1932417	Endosulfan I	3.04	Spike	P	0 - 30
1932417	Endosulfan II	2.26	Spike	P	0 - 30
1932417	Endosulfan Sulfate	2.10	Spike	P	0 - 30
1932417	Endrin	2.07	Spike	P	0 - 30
1932417	Endrin Aldehyde	5.21	Spike	P	0 - 30
1932417	Endrin Ketone	0.950	Spike	P	0 - 30
1932417	Gamma-BHC	10.8	Spike	P	0 - 30
1932417	Gamma-Chlordane	1.33	Spike	P	0 - 30
1932417	Heptachlor	3.76	Spike	P	0 - 30
1932417	Heptachlor Epoxide	0.990	Spike	P	0 - 30
1932417	Methoxychlor	3.81	Spike	P	0 - 30
1932417	Mirex	5.52	Spike	P	0 - 30
1932417	Permethrin	11.0	Spike	P	0 - 30
1932417	Trifluralin	2.37	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	21.3	LCS	P	0 - 30
LFB	Alpha-BHC	0.567	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.43	LCS	P	0 - 30
LFB	Beta-BHC	4.41	LCS	P	0 - 30
LFB	Carbophenothion	10.1	LCS	P	0 - 30
LFB	Chlorothalonil	1.21	LCS	P	0 - 30
LFB	Cypermethrin	2.55	LCS	P	0 - 30
LFB	DDD-p,p'	5.61	LCS	P	0 - 30
LFB	DDE-p,p'	3.08	LCS	P	0 - 30
LFB	DDT-p,p'	1.75	LCS	P	0 - 30
LFB	Delta-BHC	4.11	LCS	P	0 - 30
LFB	Dicofol	9.55	LCS	P	0 - 30
LFB	Dieldrin	3.38	LCS	P	0 - 30
LFB	Endosulfan I	3.34	LCS	P	0 - 30
LFB	Endosulfan II	9.66	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.39	LCS	P	0 - 30
LFB	Endrin	0.659	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.94	LCS	P	0 - 30
LFB	Endrin Ketone	2.46	LCS	P	0 - 30
LFB	Gamma-BHC	0.119	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.21	LCS	P	0 - 30
LFB	Heptachlor	3.03	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.41	LCS	P	0 - 30
LFB	Methoxychlor	0.281	LCS	P	0 - 30
LFB	Mirex	2.72	LCS	P	0 - 30
LFB	Permethrin	1.69	LCS	P	0 - 30
LFB	Trifluralin	3.40	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P332509

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931883	Chlordane	8.71	Spike	P	0 - 30
1931883	Toxaphene	7.23	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931647	Glyphosate	3.10	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932874	Pyraclostrobin	5.37	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P332452

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932875	Sucralose	27.7	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P332472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932848	Color (true)	1.36	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P332668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932743	Total Alkalinity	0.548	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P333014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932842	TDS	4.03	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P332950

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932842	TSS	5.41	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P332954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933515	TSS	9.23	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P332671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932743	Fluoride	0.492	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P332874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932889	Organic Carbon	0.909	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P332453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932874	2,4-D	7.10	Spike	P	0 - 30
1932874	Acetaminophen	9.89	Spike	P	0 - 30
1932874	Bentazon	7.20	Spike	P	0 - 30
1932874	Carbamazepine	4.42	Spike	P	0 - 30
1932874	Diuron	1.06	Spike	P	0 - 30
1932874	Fenuron	6.75	Spike	P	0 - 30
1932874	Fluridone	10.3	Spike	P	0 - 30
1932874	Imidacloprid	2.85	Spike	P	0 - 30
1932874	Linuron	1.78	Spike	P	0 - 30
1932874	MCP	4.73	Spike	P	0 - 30
1932874	Primidone	1.63	Spike	P	0 - 30
1932874	Triclopyr	2.79	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: 1932874
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	93.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.7	P	30 - 160
EPA 8321B	Diuron-d6	65.8	P	30 - 160
EPA 8321B	Diuron-d6	63.3	P	30 - 160
EPA 8321B	Diuron-d6	65.8	P	30 - 160
EPA 8321B	Diuron-d6	63.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.2	P	40 - 160
EPA 8321B	Primidone-d5	89.2	P	30 - 160
EPA 8321B	Primidone-d5	89.2	P	30 - 160
EPA 8321B	Sucralose-d6	99.0	P	40 - 160
EPA 8321B	Sucralose-d6	99.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	66.2	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	93.6	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	87.7	P	30 - 160
USGS O-2060-01	Diuron-d6	65.8	P	30 - 160
USGS O-2060-01	Diuron-d6	63.3	P	30 - 160
USGS O-2060-01	Primidone-d5	89.2	P	30 - 160
USGS O-2060-01	Sucralose-d6	99.0	P	40 - 160

Lab Sample ID: 1932875
Field Sample ID: 28030521

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	86.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.1	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1932875
Field Sample ID: 28030521

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	64.4	P	30 - 160
EPA 8321B	Primidone-d5	86.0	P	30 - 160
EPA 8321B	Sucralose-d6	96.6	P	40 - 160
USGS O-2060-01	2,4-D-d3	60.6	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	86.3	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	83.1	P	30 - 160
USGS O-2060-01	Diuron-d6	64.4	P	30 - 160
USGS O-2060-01	Primidone-d5	86.0	P	30 - 160
USGS O-2060-01	Sucralose-d6	96.6	P	40 - 160

Lab Sample ID: 1932876
Field Sample ID: 28030548

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	79.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.6	P	30 - 160
EPA 8321B	Diuron-d6	59.6	P	30 - 160
EPA 8321B	Primidone-d5	79.5	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	40 - 160
USGS O-2060-01	2,4-D-d3	63.5	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	79.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	76.6	P	30 - 160
USGS O-2060-01	Diuron-d6	59.6	P	30 - 160
USGS O-2060-01	Primidone-d5	79.5	P	30 - 160
USGS O-2060-01	Sucralose-d6	111	P	40 - 160

Lab Sample ID: 1932877
Field Sample ID: G4SEB064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	86.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	76.5	P	30 - 160
EPA 8321B	Primidone-d5	106	P	30 - 160
EPA 8321B	Sucralose-d6	89.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	65.4	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	86.6	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	105	P	30 - 160
USGS O-2060-01	Diuron-d6	76.5	P	30 - 160
USGS O-2060-01	Primidone-d5	106	P	30 - 160
USGS O-2060-01	Sucralose-d6	89.0	P	40 - 160

Lab Sample ID: 1932878
Field Sample ID: G4SEB128

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	90.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	100	P	30 - 160
EPA 8321B	Diuron-d6	77.4	P	30 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	88.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	69.2	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1932878
Field Sample ID: G4SEB128

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	90.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	100	P	30 - 160
USGS O-2060-01	Diuron-d6	77.4	P	30 - 160
USGS O-2060-01	Primidone-d5	100	P	30 - 160
USGS O-2060-01	Sucralose-d6	88.0	P	40 - 160

Lab Sample ID: 1932879
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	63.5	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	42.5	P	32 - 103
EPA 8276	Decachlorobiphenyl	58.8	P	31 - 100

Lab Sample ID: 1932880
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	74.2	P	53 - 135
EPA 8270D	Simazine-d10	104	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A79203
Included Lab Sample IDs: 1932842, 1932848, 1932854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	98.2	P/P	90 - 110
Chloride	99.2	101	P/P	90 - 110
Sulfate	103	98.6	P/P	90 - 110
Sulfate	99.0	103	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A79248
Included Lab Sample IDs: 1932842, 1932848, 1932854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.6	98.5	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79251
Included Lab Sample IDs: 1932844, 1932847, 1932850, 1932853, 1932856

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	97.6	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A79255

Included Lab Sample IDs: 1932842, 1932845, 1932848, 1932851, 1932854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	98.5	100	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A79283

Included Lab Sample IDs: 1932874

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	103	108	P/P	70 - 160

Reference Method: SM 2320 B-97

Run ID: A79318

Included Lab Sample IDs: 1932842, 1932845, 1932848, 1932851, 1932854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.5	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79318

Included Lab Sample IDs: 1932842, 1932845, 1932848, 1932851, 1932854

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A79335

Included Lab Sample IDs: 1932881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	97.1	P/P	90 - 110
Iron	103	99.5	P/P	90 - 110
Magnesium	103	99.2	P/P	90 - 110
Potassium	98.8	96.0	P/P	90 - 110
Sodium	99.9	95.6	P/P	90 - 110
Zinc	101	96.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79339

Included Lab Sample IDs: 1932881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	100	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Copper	100	99.5	P/P	90 - 110
Lead	98.9	99.6	P/P	90 - 110
Silver	96.5	97.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79342

Included Lab Sample IDs: 1932843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.3	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79346

Included Lab Sample IDs: 1932852, 1932855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	109	P/P	90 - 110
Total-P	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79355

Included Lab Sample IDs: 1932843, 1932846, 1932849

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	98.2	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79368

Included Lab Sample IDs: 1932843, 1932846, 1932849, 1932852, 1932855

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

Reference Method: EPA 8321B

Run ID: A79377

Included Lab Sample IDs: 1932874

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	97.3	95.8	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A79377

Included Lab Sample IDs: 1932874, 1932875, 1932876, 1932877, 1932878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	95.5	P/P	50 - 150
2,4-D	95.5	105	P/P	50 - 150
Acetaminophen	103	105	P/P	60 - 150
Acetaminophen	106	103	P/P	60 - 150
Bentazon	117	118	P/P	50 - 150
Bentazon	122	117	P/P	50 - 150
Carbamazepine	108	109	P/P	60 - 150
Carbamazepine	109	108	P/P	60 - 150
Diuron	100	106	P/P	60 - 150
Diuron	106	100	P/P	60 - 150
Fenuron	101	104	P/P	60 - 150
Fenuron	104	102	P/P	60 - 150
Fluridone	104	104	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A79377

Included Lab Sample IDs: 1932874, 1932875, 1932876, 1932877, 1932878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	104	105	P/P	60 - 160
Imidacloprid	93.7	96.9	P/P	60 - 150
Imidacloprid	99.4	93.7	P/P	60 - 150
Linuron	106	103	P/P	60 - 150
Linuron	107	106	P/P	60 - 150
MCPP	98.5	96.8	P/P	50 - 150
MCPP	99.0	98.5	P/P	50 - 150
Primidone	93.4	97.3	P/P	60 - 150
Primidone	97.3	84.0	P/P	60 - 150
Triclopyr	101	101	P/P	50 - 150
Triclopyr	98.8	101	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79383

Included Lab Sample IDs: 1932843, 1932846, 1932849, 1932852, 1932855

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

Reference Method: SM 5310 B-00

Run ID: A79389

Included Lab Sample IDs: 1932843, 1932846, 1932849, 1932852, 1932855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	95.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79437

Included Lab Sample IDs: 1932881

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

Reference Method: EPA 8321B

Run ID: A79445

Included Lab Sample IDs: 1932874, 1932875, 1932876, 1932877, 1932878

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	111	P/P	60 - 150
Sucralose	111	105	P/P	60 - 150

Reference Method: EPA 8276

Run ID: A79446

Included Lab Sample IDs: 1932879

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.2		P	80 - 120
Toxaphene	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A79453

Included Lab Sample IDs: 1932879

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.2		P	80 - 120
Alpha-BHC	96.4		P	80 - 120
Alpha-Chlordane	97.2		P	80 - 120
Beta-BHC	97.2		P	80 - 120
Carbophenothion	87.4		P	80 - 120
Chlorothalonil	84.0		P	80 - 120
Cypermethrin	85.7		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	105		P	80 - 120
Delta-BHC	94.1		P	80 - 120
Dicofol	143*		F	80 - 120
Dieldrin	99.9		P	80 - 120
Endosulfan I	94.7		P	80 - 120
Endosulfan II	92.4		P	80 - 120
Endosulfan Sulfate	95.8		P	80 - 120
Endrin	99.1		P	80 - 120
Endrin Aldehyde	95.6		P	80 - 120
Endrin Ketone	98.6		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	98.1		P	80 - 120
Heptachlor	95.9		P	80 - 120
Heptachlor Epoxide	99.0		P	80 - 120
Methoxychlor	99.9		P	80 - 120
Mirex	99.3		P	80 - 120
Permethrin	92.2		P	80 - 120
Trifluralin	116		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79459

Included Lab Sample IDs: 1932846, 1932849, 1932852, 1932855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	104	P/P	90 - 110
Kjeldahl Nitrogen	98.8	103	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A79546

Included Lab Sample IDs: 1932880

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	95.4		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	93.7		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	108		P	80 - 120
Chlorpyrifos Ethyl	98.5		P	80 - 120
Chlorpyrifos Methyl	95.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A79546
Included Lab Sample IDs: 1932880

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyanazine	107		P	80 - 120
Demeton	94.8		P	80 - 120
Diazinon	96.7		P	80 - 120
Disulfoton	95.1		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	91.3		P	80 - 120
Ethoprop	93.3		P	80 - 120
Fenamiphos	101		P	80 - 120
Fipronil	107		P	80 - 120
Fipronil Sulfide	98.9		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	96.4		P	80 - 120
Malathion	96.8		P	80 - 120
Metaxyl	98.6		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	81.7		P	80 - 120
Mevinphos	87.9		P	80 - 120
Molinate	111		P	80 - 120
Norflurazon	96.0		P	80 - 120
Parathion Ethyl	92.5		P	80 - 120
Parathion Methyl	89.1		P	80 - 120
Pendimethalin	93.0		P	80 - 120
Phorate	97.0		P	80 - 120
Prometon	99.7		P	80 - 120
Prometryn	110		P	80 - 120
Simazine	89.6		P	80 - 120
Terbufos	91.7		P	80 - 120
Terbutylazine	97.2		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					1.32	
	Turbidity					7.59	
EPA 200.7 Rev. 4.4	Calcium	105	104	99.4			2.13
	Iron	109	106	104	102		1.65
	Magnesium	110	108	104	101		2.01
	Potassium	102	99.6	97.2	93.6		2.43
	Sodium	103	100	97.6			1.62
	Zinc	104	110	101	97.7		3.34
EPA 200.8 Rev. 5.4	Arsenic	100	97.5	98.5	99.6		1.07
	Cadmium	99.2	99.6	99.9	103		3.00
	Chromium	96.0	95.7	96.2	97.6		1.53

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision	
							LCS	SMP
EPA 200.8 Rev. 5.4	Copper	96.6		94.0	93.3	95.0		
	Lead	96.5		96.1	97.8	99.1		
	Nickel	100		101	99.5	99.0		
	Silver	95.6		94.2	95.4	96.3		
EPA 300.0 Rev. 2.1	Chloride	98.7		96.7	98.3			0.396
	Chloride	98.0		97.8	97.4			1.65
	Sulfate	100		97.5	99.1			4.04
	Sulfate	100		99.4	99.2			9.75
EPA 350.1 Rev. 2.0	Ammonia-N	100		102	101			
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.4		97.6	102			
	Kjeldahl Nitrogen	102		101	94.2			
EPA 353.2 Rev. 2.0	NO2NO3-N	104		106	104			
	NO2NO3-N	106		105	104			
EPA 365.1 Rev. 2.0	Total-P	102		99.2	103			
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.7		93.0	95.3			
	O-Phosphate-P	104		97.3	98.7			
EPA 8270D	Acetochlor	88.6	89.6	91.6	91.2	1.08		
	Alachlor	86.7	94.5	89.3	87.8	8.63		
	Aldrin	37.9	46.9	45.1	46.9	21.3		
	Alpha-BHC	76.2	76.6	63.8	76.4	0.567		
	Alpha-Chlordane	75.8	74.0	73.3	74.5	2.43		
	Ametryn	90.0	98.6	97.3	87.9	9.12		
	Atrazine	87.3	98.0			11.5		
	Atrazine Desethyl	93.4	57.3	79.0	83.1	48.0		
	Azinphos Methyl	121	106	118	117	13.1		
	Beta-BHC	91.7	87.8	83.4	85.7	4.41		
	Bromacil	77.9	80.7	91.6	79.5	3.56		
	Butylate	56.8	59.4	46.6	51.0	4.50		
	Carbophenothion	73.9	81.8	77.8	82.4	10.1		
	Chlorothalonil	59.9	59.2	77.5	57.3	1.21		
	Chlorpyrifos Ethyl	93.4	91.0	84.7	82.7	2.68		
	Chlorpyrifos Methyl	99.7	88.4	101	104	11.9		
	Cyanazine	112	81.2	112	113	31.8		
	Cypermethrin	65.4	63.8	75.1	70.7	2.55		
	DDD-p,p'	88.7	83.8	84.5	83.7	5.61		
	DDE-p,p'	80.7	78.3	76.1	79.5	3.08		
	DDT-p,p'	79.8	78.4	78.4	77.7	1.75		
	Delta-BHC	87.9	84.4	93.3	88.6	4.11		
	Demeton	98.0	90.2	93.8	95.6	8.31		
	Diazinon	84.4	88.1	98.5	101	4.34		
	Dicofol	45.7	41.5	41.4	42.0	9.55		
	Dieldrin	81.4	78.7	75.4	78.7	3.38		
	Disulfoton	110	93.1	107	113	16.3		
	Endosulfan I	79.4	76.8	75.0	77.3	3.34		
	Endosulfan II	86.9	78.9	75.6	73.9	9.66		
	Endosulfan Sulfate	77.1	79.8	78.1	76.5	3.39		
	Endrin	81.7	81.2	78.4	80.1	0.659		
	Endrin Aldehyde	81.9	80.4	74.4	78.4	1.94		
	Endrin Ketone	78.9	80.9	77.5	78.3	2.46		
	EPTC	50.2	51.8	41.7	41.3	3.15		
	Ethion	88.7	96.0	92.2	87.3	7.95		
	Ethoprop	81.3	71.7	90.0	97.3	12.5		
	Fenamiphos	107	101	101	96.5	6.05		
	Fipronil	98.7	98.3	116	107	0.402		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Fipronil Sulfide	99.5	90.6	102	94.0	9.36	7.30
	Fipronil Sulfone	87.5	89.8	92.9	80.8	2.52	11.4
	Fonofos	91.5	78.4	92.5	95.8	15.5	3.50
	Gamma-BHC	88.4	88.3	76.0	84.7	0.119	10.8
	Gamma-Chlordane	74.9	73.3	72.9	73.8	2.21	1.33
	Heptachlor	65.7	67.8	67.5	70.1	3.03	3.76
	Heptachlor Epoxide	78.1	76.3	74.9	75.6	2.41	0.990
	Hexazinone	82.2	88.8	89.8	87.7	7.67	1.93
	Malathion	100	101	97.8	101	0.135	3.18
	Metalaxyl	84.9	82.0	93.0	86.2	3.51	7.53
	Methoxychlor	85.5	85.7	85.4	88.7	0.281	3.81
	Metolachlor	83.0	95.8	86.3	82.6	14.2	4.45
	Metribuzin	114	78.7	130	135	36.9	3.86
	Mevinphos	85.3	69.2	85.4	89.4	20.9	4.62
	Mirex	68.7	70.6	70.1	74.1	2.72	5.52
	Molinate	56.4	59.0	54.8	58.1	4.50	5.81
	Norflurazon	87.2	93.7	90.6	84.0	7.26	7.61
	Parathion Ethyl	87.3	93.1	88.4	91.4	6.50	3.34
	Parathion Methyl	106	96.1	109	110	9.71	1.82
	Pendimethalin	81.3	86.7	93.7	93.8	6.39	0.0670
	Permethrin	74.6	75.9	78.8	88.0	1.69	11.0
	Phorate	81.7	73.5	85.9	97.3	10.6	12.4
	Prometon	82.2	91.0	91.7	85.7	10.2	6.75
	Prometryn	96.1	103	107	100	6.70	6.32
	Simazine	93.8	88.0	84.7	101	6.37	12.9
	Terbufos	91.3	83.8	89.8	97.2	8.63	7.98
	Terbuthylazine	81.5	95.5	86.7	86.5	15.8	0.249
	Trifluralin	131	136	130	133	3.40	2.37
EPA 8276	Chlordane	88.6		84.0	91.7		8.71
	Toxaphene	95.9		94.4	101		7.23
EPA 8321B	Glyphosate	117		100	104		3.10
	Pyraclostrobin	85.0		98.6	93.5		5.37
	Sucralose	77.3		149	85.4		27.7
SM 2120 B	Color (true)					1.36	
SM 2320 B-97	Total Alkalinity	102				0.548	
SM 2540 C-97	TDS					4.03	
SM 2540 D-97	TSS					5.41	
	TSS					9.23	
SM 4500 F-C-97	Fluoride	98.3		106	106		0.492
SM 5310 B-00	Organic Carbon	95.0		93.4	94.6		0.909
USGS O-2060-01	2,4-D	69.0		62.2	67.3		7.10
	Acetaminophen	99.8		76.5	84.4		9.89
	Bentazon	45.4		30.0	36.6		7.20
	Carbamazepine	110		80.6	84.2		4.42
	Diuron	99.9		63.6	64.9		1.06
	Fenuron	104		77.9	83.3		6.75
	Fluridone	101		59.2	50.5		10.3
	Imidacloprid	99.9					2.85
	Linuron	98.8		86.6	88.2		1.78
	MCPP	68.5		50.8	53.2		4.73
	Primidone	103		86.2	87.6		1.63
	Triclopyr	68.9		47.3	48.7		2.79

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1932842, 1932845, 1932848, 1932851, 1932854
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1932881
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1932881
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1932842, 1932848, 1932854
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1932842, 1932848, 1932854
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1932843, 1932846, 1932849, 1932852, 1932855
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1932843, 1932846, 1932849, 1932852, 1932855
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1932843, 1932846, 1932849, 1932852, 1932855
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1932843, 1932846, 1932849, 1932852, 1932855
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1932844, 1932847, 1932850, 1932853, 1932856
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1932879
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1932880
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1932879
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1932874, 1932875, 1932876, 1932877, 1932878
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1932874
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1932874
SM 2120 B / E31780	True Color measured at 450 nm	1932842, 1932848, 1932854
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1932842, 1932845, 1932848, 1932851, 1932854
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1932842, 1932848, 1932854
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1932842, 1932845, 1932848, 1932851, 1932854
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1932842, 1932845, 1932848, 1932851, 1932854
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1932843, 1932846, 1932849, 1932852, 1932855
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1932874, 1932875, 1932876, 1932877, 1932878
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1932874, 1932875, 1932876, 1932877, 1932878

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	09/29/2017			09/29/2017 14:45	DeAsia Armster	1932842, 1932845, 1932848, 1932851, 1932854
EPA 200.7 Rev. 4.4	09/29/2017	10/03/2017	Elliott D. Healy	10/04/2017	Betina Topolski	1932881
EPA 200.8 Rev. 5.4	09/29/2017	10/03/2017	Elliott D. Healy	10/04/2017	Nadine Brooks	1932881
	09/29/2017	10/06/2017	Elliott D. Healy	10/09/2017	Nadine Brooks	1932881
EPA 300.0 Rev. 2.1	09/29/2017			09/29/2017	Julia Storbeck	1932842, 1932848, 1932854
EPA 350.1 Rev. 2.0	09/29/2017			10/05/2017	Sofia Elnemr	1932843, 1932846, 1932849, 1932852, 1932855
EPA 351.2 Rev. 2.0	09/29/2017	10/03/2017	Adrian Shelby	10/04/2017	Tanya Welborn	1932843
	09/29/2017	10/09/2017	Adrian Shelby	10/10/2017	Virginia P. Brown	1932846, 1932849, 1932852, 1932855
EPA 353.2 Rev. 2.0	09/29/2017			10/06/2017	Beverly Y. Sanders	1932843, 1932846, 1932849, 1932852, 1932855
EPA 365.1 Rev. 2.0	09/29/2017	10/03/2017	Sima Feizi	10/04/2017	Lipi Saha	1932852, 1932855
	09/29/2017	10/03/2017	Sima Feizi	10/05/2017	Lipi Saha	1932843, 1932846, 1932849
EPA 365.1 Rev. 2.0 dissolved	09/29/2017			09/29/2017 14:48	Megan Treadwell	1932850
	09/29/2017			09/29/2017 15:14	Megan Treadwell	1932844, 1932847
	09/29/2017			09/29/2017 15:15	Megan Treadwell	1932853
	09/29/2017			09/29/2017 15:16	Megan Treadwell	1932856
EPA 8270D	09/29/2017	10/02/2017	Fe-Val Siddell	10/04/2017	Irina Carbone	1932880
	09/29/2017	10/02/2017	John Kaba	10/06/2017	Vandana T. Nagar	1932879
EPA 8276	09/29/2017	10/02/2017	John Kaba	10/07/2017	John P. Burgos	1932879
EPA 8321B	09/29/2017	10/02/2017	Julie Michelle Frank	10/02/2017	Julie Michelle Frank	1932874
	09/29/2017	10/03/2017	Hoor Shaik	10/05/2017	Julie Michelle Frank	1932874
	09/29/2017	10/04/2017	Hoor Shaik	10/06/2017	Juyoung Kim	1932874, 1932875, 1932876, 1932877, 1932878
SM 2120 B	09/29/2017			09/29/2017 14:40	Tanya Welborn	1932842
	09/29/2017			09/29/2017 14:41	Tanya Welborn	1932848
	09/29/2017			09/29/2017 14:42	Tanya Welborn	1932854
SM 2320 B-97	09/29/2017			10/04/2017	Dale L. Simmons	1932842, 1932845, 1932848, 1932851, 1932854
SM 2540 C-97	09/29/2017			10/04/2017	Yijie Li	1932842, 1932848, 1932854
SM 2540 D-97	09/29/2017			10/04/2017	Yijie Li	1932842, 1932845, 1932848, 1932851, 1932854
SM 4500 F-C-97	09/29/2017			10/04/2017	Dale L. Simmons	1932842, 1932845, 1932848, 1932851, 1932854
SM 5310 B-00	09/29/2017			10/06/2017	Ping Hua	1932843, 1932846, 1932849, 1932852, 1932855
USGS O-2060-01	09/29/2017	10/04/2017	Hoor Shaik	10/07/2017	Julie Michelle Frank	1932874, 1932875, 1932876, 1932877, 1932878