

Chemical Analysis Report

SE-DIST-2017-10-10-01

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

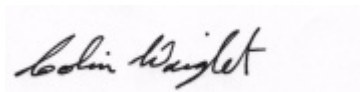
Event Description: **SMP-G3 WPB Run**
Request ID: **RQ-2017-10-09-29**
Customer: **SE-DIST**
Project ID: **SMP**

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

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

Certified by: Colin Wright, Program Administrator

Date Certified: 01-NOV-2017 09:06

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Acme South @ Lake Worth Rd.

Collection Date/Time: 10/09/2017 10:05

Field ID: G3SE0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935194	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P333095	
	EPA 300.0 Rev. 2.1	Chloride	44		mg Cl/L	P333240	
		Sulfate	31		mg SO4/L	P333243	
		Color (true)	40	A	PCU	P333101	
	SM 2320 B-97	Total Alkalinity	205		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	350		mg/L	P333824	
	SM 2540 D-97	TSS	4	I	mg/L	P333282	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P333527	
1935197	EPA 350.1 Rev. 2.0	Ammonia-N	0.29		mg N/L	P333393	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P333414	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.051		mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P333187	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P333654	
1935200	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P333133	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Acme North @ South Shore Blvd

Collection Date/Time: 10/09/2017 10:25

Field ID: 32012006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935195	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P333095	
	EPA 300.0 Rev. 2.1	Chloride	64		mg Cl/L	P333240	
		Sulfate	34		mg SO4/L	P333243	
		Color (true)	98		PCU	P333101	
	SM 2320 B-97	Total Alkalinity	217		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	432		mg/L	P333824	
	SM 2540 D-97	TSS	4	I	mg/L	P333282	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P333527	
1935198	EPA 350.1 Rev. 2.0	Ammonia-N	0.42		mg N/L	P333393	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P333414	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P333187	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P333654	
1935201	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P333133	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Okechee Park Boat Ramp

Collection Date/Time: 10/09/2017 11:00

Field ID: G3SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935212	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P333095	

Field ID: G3SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935212	EPA 300.0 Rev. 2.1	Chloride	18	A	mg Cl/L	P333240	
		Sulfate	0.41	IA	mg SO4/L	P333243	
	SM 2120 B	Color (true)	12		PCU	P333101	
	SM 2320 B-97	Total Alkalinity	79		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	129	A	mg/L	P333825	
	SM 2540 D-97	TSS	2	UA	mg/L	P333283	
	SM 4500 F-C-97	Fluoride	0.092	I	mg F/L	P333527	
1935213	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P333394	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P333493	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P333267	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P333654	
1935214	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333135	
1935262	EPA 8321B	Glyphosate**	0.50	U	ug/L	P333126	
		Pyraclostrobin**	0.0020	U	ug/L	P332701	
		Sucralose**	0.021	I	ug/L	P333049	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P333050	
		Diuron	8.0E-04	U	ug/L	P333050	
		Fenuron	0.0080	U	ug/L	P333050	
		Imidacloprid	8.0E-04	U	ug/L	P333050	MS
		Bentazon	8.0E-04	U	ug/L	P333050	MS
		Linuron	0.0040	U	ug/L	P333050	
		Acetaminophen**	0.11		ug/L	P333050	
		MCP	0.0020	U	ug/L	P333050	
		Carbamazepine**	4.0E-04	U	ug/L	P333050	
		Triclopyr**	0.0040	U	ug/L	P333050	MS
		Primidone**	0.0040	U	ug/L	P333050	
		Fluridone**	4.0E-04	U	ug/L	P333050	
	EPA 8270D	Aldrin	4.3	U	ng/L	P333650	
		Alpha-BHC	2.2	U	ng/L	P333650	
		Beta-BHC	4.3	U	ng/L	P333650	
		Delta-BHC	4.3	U	ng/L	P333650	
		Gamma-BHC	4.3	U	ng/L	P333650	RPD
		Carbophenothion	4.3	U	ng/L	P333650	
		Chlorothalonil	2.2	U	ng/L	P333650	
		Cypermethrin	22	U	ng/L	P333650	
		DDD-p,p'	3.2	U	ng/L	P333650	
		DDE-p,p'	3.2	U	ng/L	P333650	
		DDT-p,p'	3.2	UJ	ng/L	P333650	LCS, MS
		Dieldrin	4.3	U	ng/L	P333650	
		Endosulfan I	4.3	U	ng/L	P333650	
		Endosulfan II	4.3	U	ng/L	P333650	
		Endosulfan Sulfate	2.2	U	ng/L	P333650	
		Endrin	2.2	U	ng/L	P333650	

Field ID: G3SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935265	EPA 8270D	Endrin Aldehyde	2.2	U	ng/L	P333650	
		Heptachlor	1.6	U	ng/L	P333650	
		Heptachlor Epoxide	2.2	U	ng/L	P333650	
		Methoxychlor	4.3	U	ng/L	P333650	MS
		Mirex	2.2	UJ	ng/L	P333650	LCS
		Permethrin	11	U	ng/L	P333650	
		Trifluralin	1.1	U	ng/L	P333650	
		Alpha-Chlordane	1.1	U	ng/L	P333650	
		Gamma-Chlordane	1.1	U	ng/L	P333650	
		Endrin Ketone	2.2	U	ng/L	P333650	
1935266		Dicofol	32	U	ng/L	P333650	
		Alachlor	0.24	U	ng/L	P333058	
		Ametryn	0.31	U	ng/L	P333058	
		Atrazine	29		ng/L	P333058	
		Atrazine Desethyl	18		ng/L	P333058	
		Azinphos Methyl	2.2	U	ng/L	P333058	
		Bromacil	0.48	U	ng/L	P333058	
		Butylate	0.38	UJ	ng/L	P333058	RPD
		Chlorpyrifos Ethyl	0.24	U	ng/L	P333058	
		Chlorpyrifos Methyl	0.096	U	ng/L	P333058	
		Demeton	1.9	U	ng/L	P333058	
		Diazinon	0.12	U	ng/L	P333058	
		Disulfoton	0.48	U	ng/L	P333058	
		EPTC	1.2	U	ng/L	P333058	
		Ethion	0.14	U	ng/L	P333058	
		Ethoprop	0.096	U	ng/L	P333058	MS
		Fenamiphos	0.24	U	ng/L	P333058	
		Fipronil	0.24	U	ng/L	P333058	
		Fipronil Sulfide	0.14	U	ng/L	P333058	
		Fipronil Sulfone	0.14	U	ng/L	P333058	
		Hexazinone	0.48	U	ng/L	P333058	
		Malathion	0.33	U	ng/L	P333058	
		Metribuzin	0.19	UJ	ng/L	P333058	CCV, RPD
		Mevinphos	0.48	U	ng/L	P333058	
		Molinate	0.29	U	ng/L	P333058	
		Norflurazon	0.48	U	ng/L	P333058	
		Pendimethalin	0.96	U	ng/L	P333058	
		Phorate	0.24	U	ng/L	P333058	
		Prometon	0.86	U	ng/L	P333058	
		Prometryn	0.19	U	ng/L	P333058	
		Simazine	1.2	I	ng/L	P333058	
		Terbufos	0.096	U	ng/L	P333058	
		Terbuthylazine	0.41	U	ng/L	P333058	
		Fonofos	0.19	U	ng/L	P333058	
		Metalaxyl	0.19	U	ng/L	P333058	

Field ID: G3SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935266	EPA 8270D	Metolachlor	0.24	U	ng/L	P333058	
		Acetochlor	0.24	U	ng/L	P333058	
		Cyanazine	0.48	UJ	ng/L	P333058	RPD
		Parathion Ethyl	0.24	U	ng/L	P333058	
		Parathion Methyl	0.24	U	ng/L	P333058	
1935281	EPA 200.7 Rev. 4.4	Calcium	31.3		mg/L	P333197	
		Iron	60	I	ug/L	P333197	
		Magnesium	1.99		mg/L	P333197	
		Potassium	1.4		mg/L	P333197	
		Sodium	11.4		mg/L	P333197	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P333197	
		Arsenic	1.22		ug/L	P333197	
		Cadmium	0.020	U	ug/L	P333197	
		Chromium	0.40	U	ug/L	P333197	
		Copper	0.34	I	ug/L	P333197	
		Lead	0.050	U	ug/L	P333197	
		Nickel	0.20	U	ug/L	P333197	
		Silver	0.010	U	ug/L	P333197	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

USGS O-2060-01: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270D: 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.

Sample Location: Lake Clarke @ Pine Tree Lane

Collection Date/Time: 10/09/2017 11:30

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935209	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P333095	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P333240	
		Sulfate	18		mg SO4/L	P333243	
		Color (true)	69		PCU	P333101	
	SM 2320 B-97	Total Alkalinity	143		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	245		mg/L	P333824	
	SM 2540 D-97	TSS	3	I	mg/L	P333282	
	SM 4500 F-C-97	Fluoride	0.097	I	mg F/L	P333527	
1935210	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P333394	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P333414	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.30		mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.077		mg P/L	P333267	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P333654	
1935211	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.039		mg P/L	P333133	
1935261	EPA 8321B	Glyphosate**	1.5	I	ug/L	P333126	
		Pyraclostrobin**	0.0020	U	ug/L	P332701	
		Sucralose**	0.49		ug/L	P333049	

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935261	USGS O-2060-01	2,4-D	0.013		ug/L	P333050	
		Diuron	0.0082		ug/L	P333050	
		Fenuron	0.0080	U	ug/L	P333050	
		Imidacloprid	0.057		ug/L	P333050	MS
		Bentazon	0.017		ug/L	P333050	MS
		Linuron	0.0040	U	ug/L	P333050	
		Acetaminophen**	0.0080	U	ug/L	P333050	
		MCP	0.0020	U	ug/L	P333050	
		Carbamazepine**	0.0034		ug/L	P333050	
		Triclopyr**	0.0040	U	ug/L	P333050	MS
		Primidone**	0.0040	U	ug/L	P333050	
		Fluridone**	0.028		ug/L	P333050	
1935263	EPA 8270D	Aldrin	4.2	U	ng/L	P333650	
		Alpha-BHC	2.1	U	ng/L	P333650	
		Beta-BHC	4.2	U	ng/L	P333650	
		Delta-BHC	4.2	U	ng/L	P333650	
		Gamma-BHC	4.2	U	ng/L	P333650	RPD
		Carbophenothion	4.2	U	ng/L	P333650	
		Chlorothalonil	2.1	U	ng/L	P333650	
		Cypermethrin	21	U	ng/L	P333650	
		DDD-p,p'	3.2	U	ng/L	P333650	
		DDE-p,p'	3.2	U	ng/L	P333650	
		DDT-p,p'	3.2	UJ	ng/L	P333650	LCS, MS
		Dieldrin	4.2	U	ng/L	P333650	
		Endosulfan I	4.2	U	ng/L	P333650	
		Endosulfan II	4.2	U	ng/L	P333650	
		Endosulfan Sulfate	2.1	U	ng/L	P333650	
		Endrin	2.1	U	ng/L	P333650	
		Endrin Aldehyde	2.1	U	ng/L	P333650	
		Heptachlor	1.6	U	ng/L	P333650	
		Heptachlor Epoxide	2.1	U	ng/L	P333650	
		Methoxychlor	4.2	U	ng/L	P333650	MS
		Mirex	2.1	UJ	ng/L	P333650	LCS
		Permethrin	11	U	ng/L	P333650	
		Trifluralin	1.1	U	ng/L	P333650	
		Alpha-Chlordane	1.1	U	ng/L	P333650	
		Gamma-Chlordane	1.1	U	ng/L	P333650	
		Endrin Ketone	2.1	U	ng/L	P333650	
		Dicofol	32	U	ng/L	P333650	
1935264		Alachlor	0.24	U	ng/L	P333058	
		Ametryn	1.4		ng/L	P333058	
		Atrazine	35		ng/L	P333058	
		Atrazine Desethyl	3.4	I	ng/L	P333058	
		Azinphos Methyl	2.2	U	ng/L	P333058	
		Bromacil	0.48	U	ng/L	P333058	

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935264	EPA 8270D	Butylate	0.38	UJ	ng/L	P333058	RPD
		Chlorpyrifos Ethyl	0.24	U	ng/L	P333058	
		Chlorpyrifos Methyl	0.096	U	ng/L	P333058	
		Demeton	1.9	U	ng/L	P333058	
		Diazinon	0.12	U	ng/L	P333058	
		Disulfoton	0.48	U	ng/L	P333058	
		EPTC	1.2	U	ng/L	P333058	
		Ethion	0.14	U	ng/L	P333058	
		Ethoprop	0.096	U	ng/L	P333058	MS
		Fenamiphos	0.24	U	ng/L	P333058	
		Fipronil	0.52	I	ng/L	P333058	
		Fipronil Sulfide	0.46	I	ng/L	P333058	
		Fipronil Sulfone	0.92		ng/L	P333058	
		Hexazinone	2.9		ng/L	P333058	
		Malathion	0.34	U	ng/L	P333058	
		Metribuzin	5.0	J	ng/L	P333058	RPD
		Mevinphos	0.48	U	ng/L	P333058	
		Molinate	0.29	U	ng/L	P333058	
		Norflurazon	2.5		ng/L	P333058	
		Pendimethalin	0.96	U	ng/L	P333058	
		Phorate	0.24	U	ng/L	P333058	
		Prometon	0.87	U	ng/L	P333058	
		Prometryn	0.19	U	ng/L	P333058	
		Simazine	0.48	U	ng/L	P333058	
		Terbufos	0.096	U	ng/L	P333058	
		Terbuthylazine	0.41	U	ng/L	P333058	
		Fonofos	0.19	U	ng/L	P333058	
		Metalaxyl	4.4		ng/L	P333058	
		Metolachlor	4.6		ng/L	P333058	
		Acetochlor	0.24	U	ng/L	P333058	
		Cyanazine	0.48	UJ	ng/L	P333058	RPD
		Parathion Ethyl	0.24	U	ng/L	P333058	
		Parathion Methyl	0.24	U	ng/L	P333058	
1935280	EPA 200.7 Rev. 4.4	Calcium	65.2		mg/L	P333197	
		Iron	120		ug/L	P333197	
		Magnesium	3.75		mg/L	P333197	
		Potassium	3.0		mg/L	P333197	
		Sodium	26.1		mg/L	P333197	
		Zinc	5.0	U	ug/L	P333197	
	EPA 200.8 Rev. 5.4	Arsenic	1.86		ug/L	P333197	
		Cadmium	0.020	U	ug/L	P333197	
		Chromium	0.60	I	ug/L	P333197	
		Copper	1.18		ug/L	P333197	
		Lead	0.13	I	ug/L	P333197	
		Nickel	0.35	I	ug/L	P333197	

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935280	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P333197	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 8321B: Results confirmed in re-extraction.

USGS O-2060-01: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270D: 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.

Sample Location: Pine Lake

Collection Date/Time: 10/09/2017 12:00

Field ID: 32008010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935206	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P333095	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P333240	
		Sulfate	20		mg SO4/L	P333243	
	SM 2120 B	Color (true)	72		PCU	P333101	
	SM 2320 B-97	Total Alkalinity	149		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	275		mg/L	P333824	
	SM 2540 D-97	TSS	7	I	mg/L	P333282	
1935207	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P333527	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P333394	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P333414	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.069		mg P/L	P333187	
1935208	SM 5310 B-00	Organic Carbon	12		mg C/L	P333654	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P333133	
1935260	EPA 8321B	Sucralose**	0.14		ug/L	P333049	
	USGS O-2060-01	2,4-D	0.017		ug/L	P333050	
		Diuron	0.0041		ug/L	P333050	
		Fenuron	0.0080	U	ug/L	P333050	
		Imidacloprid	0.056		ug/L	P333050	MS
		Bentazon	0.010		ug/L	P333050	MS
		Linuron	0.0040	U	ug/L	P333050	
		Acetaminophen**	0.0080	U	ug/L	P333050	
		MCP	0.0020	U	ug/L	P333050	
		Carbamazepine**	0.0011	I	ug/L	P333050	
		Triclopyr**	0.0040	U	ug/L	P333050	MS
		Primidone**	0.0040	U	ug/L	P333050	
		Fluridone**	0.0094		ug/L	P333050	
1935279	EPA 200.7 Rev. 4.4	Calcium	67.9		mg/L	P333197	
		Iron	260		ug/L	P333197	
		Magnesium	4.26		mg/L	P333197	
		Potassium	3.1		mg/L	P333197	
		Sodium	26.7		mg/L	P333197	
		Zinc	5.0	U	ug/L	P333197	

Field ID: 32008010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935279	EPA 200.8 Rev. 5.4	Arsenic	1.25		ug/L	P333197	
		Cadmium	0.020	U	ug/L	P333197	
		Chromium	0.48	I	ug/L	P333197	
		Copper	1.19		ug/L	P333197	
		Lead	0.21		ug/L	P333197	
		Nickel	0.33	I	ug/L	P333197	
		Silver	0.010	U	ug/L	P333197	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

USGS O-2060-01: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Clear Lake @ Okeechobee Rd.

Collection Date/Time: 10/09/2017 12:20

Field ID: 28010896

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935196	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P333095	
	EPA 300.0 Rev. 2.1	Chloride	100		mg Cl/L	P333240	
		Sulfate	40		mg SO4/L	P333243	
		Color (true)	29		PCU	P333101	
	SM 2320 B-97	Total Alkalinity	106		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	360		mg/L	P333824	
	SM 2540 D-97	TSS	3	I	mg/L	P333282	
1935199	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P333527	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P333394	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P333414	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P333187	
1935202	SM 5310 B-00	Organic Carbon	12		mg C/L	P333654	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P333133	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: C-17 @ SR-702

Collection Date/Time: 10/09/2017 13:00

Field ID: 32008003

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935203	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P333095	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P333240	
		Sulfate	12		mg SO4/L	P333243	
		Color (true)	42		PCU	P333101	
	SM 2320 B-97	Total Alkalinity	149		mg CaCO3/L	P333524	
	SM 2540 C-97	TDS	265		mg/L	P333824	
	SM 2540 D-97	TSS	5	I	mg/L	P333282	
1935204	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P333527	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P333394	

Field ID: 32008003

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1935204	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.98		mg N/L	P333414	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P333338	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P333187	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P333654	
1935205	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P333133	
1935278	EPA 200.7 Rev. 4.4	Calcium	63.5		mg/L	P333197	
		Iron	220		ug/L	P333197	
		Magnesium	4.02		mg/L	P333197	
		Potassium	3.3		mg/L	P333197	
		Sodium	29.5		mg/L	P333197	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P333197	
		Arsenic	2.03		ug/L	P333197	
		Cadmium	0.020	U	ug/L	P333197	
		Chromium	0.53	I	ug/L	P333197	
		Copper	1.97		ug/L	P333197	
		Lead	0.32		ug/L	P333197	
		Nickel	0.28	I	ug/L	P333197	
		Silver	0.010	U	ug/L	P333197	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333095

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333197

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: P333197

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333197

Component	Result	Code	Units
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333240

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333243

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333393

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333394

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333414

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333493

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333338

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333187

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333267

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333133

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333135

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

Reference Method: EPA 8270D
Batch ID: P333058

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P333058

Component	Result	Code	Units
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: P333650

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
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8321B
Batch ID: P332701

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P333049

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P333126

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: SM 2120 B
Batch ID: P333101

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P333524

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

Reference Method: SM 2540 C-97
Batch ID: P333824

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P333825

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P333282

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P333283

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P333527

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P333654

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
 Batch ID: P333050

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P333197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	110		P	85 - 115
Magnesium	113		P	85 - 115
Potassium	106		P	85 - 115
Sodium	111		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P333197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	97.4		P	85 - 115
Cadmium	99.1		P	85 - 115
Chromium	95.4		P	85 - 115
Copper	94.5		P	85 - 115
Lead	93.7		P	85 - 115
Nickel	97.0		P	85 - 115
Silver	94.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P333240

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P333243

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333393

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333394

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333414

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333493

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: P333338

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333187

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333267

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333133

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: P333135

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P333058

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.8	104	P/P	78 - 118
Alachlor	97.6	103	P/P	77 - 119
Ametryn	91.5	89.5	P/P	61 - 136
Atrazine	93.2	95.2	P/P	73 - 120
Atrazine Desethyl	99.5	113	P/P	16 - 122
Azinphos Methyl	95.5	107	P/P	69 - 186
Bromacil	90.4	82.5	P/P	40 - 125
Butylate	78.4	57.2	P/P	32 - 87.0
Chlorpyrifos Ethyl	94.2	86.7	P/P	53 - 110
Chlorpyrifos Methyl	89.0	97.2	P/P	31 - 119
Cyanazine	97.6	156	P/P	36 - 224
Demeton	97.1	84.9	P/P	39 - 122
Diazinon	87.2	115	P/P	75 - 119
Disulfoton	103	108	P/P	42 - 139
EPTC	73.3	54.5	P/P	33 - 96.0
Ethion	95.8	83.0	P/P	63 - 127
Ethoprop	83.1	90.1	P/P	65 - 107
Fenamiphos	99.1	85.9	P/P	64 - 137
Fipronil	95.9	102	P/P	60 - 126
Fipronil Sulfide	93.5	76.3	P/P	58 - 124
Fipronil Sulfone	89.7	68.2	P/P	57 - 126
Fonofos	84.8	93.0	P/P	65 - 111
Hexazinone	93.2	82.1	P/P	46 - 151
Malathion	92.8	79.2	P/P	68 - 132
Metaxyl	91.5	91.0	P/P	51 - 132
Metolachlor	98.7	94.3	P/P	78 - 119
Metribuzin	72.6	113	P/P	58 - 148
Mevinphos	86.2	80.2	P/P	34 - 128
Molinate	73.8	58.2	P/P	44 - 101
Norflurazon	92.6	87.7	P/P	63 - 129
Parathion Ethyl	89.1	89.1	P/P	80 - 109
Parathion Methyl	93.5	105	P/P	74 - 125
Pendimethalin	91.3	93.4	P/P	48 - 134
Phorate	85.4	88.2	P/P	52 - 119
Prometon	93.1	85.4	P/P	69 - 124
Prometryn	94.5	102	P/P	66 - 124
Simazine	96.7	96.2	P/P	61 - 134
Terbufos	86.0	91.1	P/P	58 - 115
Terbutylazine	92.3	92.1	P/P	77 - 113

Reference Method: EPA 8270D
Batch ID: P333650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	85.7	83.1	P/P	26 - 88.0
Alpha-BHC	105	105	P/P	63 - 114
Alpha-Chlordane	102	107	P/P	56 - 117
Beta-BHC	127	112	P/P	57 - 138
Carbophenothion	147	147	P/P	36 - 148
Chlorothalonil	83.9	103	P/P	26 - 173
Cypermethrin	151	144	P/P	42 - 159
DDD-p,p'	109	111	P/P	62 - 126

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P333650

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDE-p,p'	103	105	P/P	53 - 115
DDT-p,p'	120	118	F/F	54 - 117
Delta-BHC	122	128	P/P	68 - 158
Dicofol	29.2	29.9	P/P	25 - 114
Dieldrin	117	125	P/P	59 - 126
Endosulfan I	112	114	P/P	62 - 138
Endosulfan II	118	119	P/P	61 - 150
Endosulfan Sulfate	114	112	P/P	63 - 132
Endrin	115	120	P/P	49 - 148
Endrin Aldehyde	102	116	P/P	50 - 144
Endrin Ketone	114	114	P/P	66 - 122
Gamma-BHC	116	122	P/P	60 - 137
Gamma-Chlordane	98.9	102	P/P	54 - 113
Heptachlor	89.1	87.7	P/P	43 - 104
Heptachlor Epoxide	99.9	109	P/P	64 - 118
Methoxychlor	127	128	P/P	63 - 129
Mirex	94.1	85.9	F/P	39 - 93.0
Permethrin	122	118	P/P	51 - 123
Trifluralin	93.6	91.9	P/P	35 - 187

Reference Method: EPA 8321B
Batch ID: P332701

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	105		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P333049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	116		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P333126

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	115		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P333524

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

Reference Method: SM 4500 F-C-97
Batch ID: P333527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P333654

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

Reference Method: USGS O-2060-01
Batch ID: P333050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	63.2		P	40 - 150
Acetaminophen	111		P	30 - 150
Bentazon	30.3		P	30 - 150
Carbamazepine	104		P	40 - 150
Diuron	99.7		P	40 - 150
Fenuron	93.4		P	40 - 150
Fluridone	109		P	40 - 150
Imidacloprid	92.6		P	40 - 160
Linuron	94.7		P	40 - 150
MCP	63.8		P	40 - 150
Primidone	97.1		P	40 - 150
Triclopyr	62.7		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935244	Calcium	107		P	80 - 120
1935244	Iron	109		P	80 - 120
1935244	Magnesium	111		P	80 - 120
1935244	Potassium	102		P	80 - 120
1935244	Sodium	107		P	80 - 120
1935244	Zinc	105		P	80 - 120
1935292	Calcium	103		P	80 - 120
1935292	Iron	113	112	P/P	80 - 120
1935292	Magnesium	113	112	P/P	80 - 120
1935292	Potassium	112	112	P/P	80 - 120
1935292	Sodium	113	113	P/P	80 - 120
1935292	Zinc	105	104	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935244	Arsenic	98.0		P	80 - 120
1935244	Cadmium	103		P	80 - 120
1935244	Chromium	95.4		P	80 - 120
1935244	Copper	95.2		P	80 - 120
1935244	Lead	94.0		P	80 - 120
1935244	Nickel	96.7		P	80 - 120
1935244	Silver	95.0		P	80 - 120
1935292	Arsenic	96.9	96.9	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935292	Cadmium	102	99.6	P/P	80 - 120
1935292	Chromium	96.0	95.2	P/P	80 - 120
1935292	Copper	90.6	91.0	P/P	80 - 120
1935292	Lead	94.0	92.8	P/P	80 - 120
1935292	Nickel	93.6	94.3	P/P	80 - 120
1935292	Silver	95.7	94.2	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935171	Chloride	102		P	90 - 110
1935212	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935171	Sulfate	99.1		P	90 - 110
1935212	Sulfate	98.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935142	Ammonia-N	100	97.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935199	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935180	Kjeldahl Nitrogen	106	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935213	Kjeldahl Nitrogen	92.5	92.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935197	NO2NO3-N	103	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P333187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935151	Total-P	98.8	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P333267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935210	Total-P	102	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P333133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935202	O-Phosphate-P	95.0	94.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P333135

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935214	O-Phosphate-P	97.9	95.8	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P333058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1934725	Acetochlor	96.2	104	P/P	74 - 123
1934725	Alachlor	95.5	99.6	P/P	73 - 124
1934725	Ametryn	89.6	69.8	P/P	56 - 149
1934725	Atrazine Desethyl	96.9	92.7	P/P	12 - 103
1934725	Azinphos Methyl	99.6	110	P/P	60 - 202
1934725	Bromacil	101	107	P/P	42 - 133
1934725	Butylate	59.4	57.6	P/P	10 - 85.0
1934725	Chlorpyrifos Ethyl	81.4	83.2	P/P	53 - 113
1934725	Chlorpyrifos Methyl	94.4	104	P/P	40 - 115
1934725	Cyanazine	134	160	P/P	22 - 210
1934725	Demeton	83.0	86.9	P/P	17 - 149
1934725	Diazinon	110	121	P/P	72 - 124
1934725	Disulfoton	106	121	P/P	43 - 139
1934725	EPTC	57.4	55.2	P/P	10 - 86.0
1934725	Ethion	78.4	82.5	P/P	65 - 131
1934725	Ethoprop	99.7	111	P/F	59 - 110
1934725	Fenamiphos	88.6	84.0	P/P	57 - 138
1934725	Fipronil	107	111	P/P	40 - 130
1934725	Fipronil Sulfide	82.7	84.2	P/P	36 - 128
1934725	Fipronil Sulfone	71.4	73.2	P/P	16 - 145
1934725	Fonofos	98.2	108	P/P	60 - 112
1934725	Hexazinone	87.4	94.3	P/P	69 - 142
1934725	Malathion	95.9	99.2	P/P	68 - 132
1934725	Metalaxyl	99.2	97.5	P/P	66 - 118
1934725	Metolachlor	93.1	98.1	P/P	71 - 124
1934725	Metribuzin	124	123	P/P	61 - 140
1934725	Mevinphos	91.1	92.6	P/P	38 - 130
1934725	Molinate	49.1	55.9	P/P	23 - 99.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P333058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1934725	Norflurazon	82.2	86.9	P/P	39 - 139
1934725	Parathion Ethyl	92.3	94.2	P/P	75 - 111
1934725	Parathion Methyl	109	114	P/P	64 - 130
1934725	Pendimethalin	102	99.3	P/P	26 - 173
1934725	Phorate	90.2	87.8	P/P	43 - 127
1934725	Prometon	86.2	81.8	P/P	50 - 144
1934725	Prometryn	95.3	100	P/P	69 - 126
1934725	Simazine	94.4	113	P/P	51 - 152
1934725	Terbufos	98.7	102	P/P	54 - 125
1934725	Terbuthylazine	92.1	100	P/P	76 - 113

Reference Method: EPA 8270D

Batch ID: P333650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935886	Aldrin	81.4	89.4	P/P	22 - 97.0
1935886	Alpha-BHC	115	110	P/P	43 - 132
1935886	Alpha-Chlordane	103	109	P/P	36 - 126
1935886	Beta-BHC	109	118	P/P	41 - 150
1935886	Carbophenothion	168	163	P/P	13 - 196
1935886	Chlorothalonil	166	155	P/P	10 - 266
1935886	Cypermethrin	123	138	P/P	37 - 161
1935886	DDD-p,p'	106	112	P/P	44 - 131
1935886	DDE-p,p'	100	107	P/P	32 - 127
1935886	DDT-p,p'	116	118	P/F	45 - 116
1935886	Delta-BHC	123	150	P/P	50 - 201
1935886	Dicofol	31.0	30.9	P/P	10 - 100
1935886	Dieldrin	119	121	P/P	39 - 142
1935886	Endosulfan I	120	122	P/P	51 - 139
1935886	Endosulfan II	119	126	P/P	49 - 155
1935886	Endosulfan Sulfate	112	121	P/P	54 - 136
1935886	Endrin	123	124	P/P	38 - 141
1935886	Endrin Aldehyde	112	120	P/P	14 - 152
1935886	Endrin Ketone	115	118	P/P	60 - 128
1935886	Gamma-BHC	121	73.6	P/P	48 - 157
1935886	Gamma-Chlordane	98.8	105	P/P	35 - 123
1935886	Heptachlor	87.7	92.2	P/P	25 - 112
1935886	Heptachlor Epoxide	109	109	P/P	48 - 125
1935886	Methoxychlor	141	133	F/F	52 - 127
1935886	Mirex	79.3	87.8	P/P	25 - 108
1935886	Permethrin	108	116	P/P	46 - 133
1935886	Trifluralin	96.1	97.1	P/P	29 - 254

Reference Method: EPA 8321B

Batch ID: P332701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1934227	Pyraclostrobin	101	119	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P333049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935016	Sucralose	66.8	86.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P333126

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935261	Glyphosate	122	123	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P333527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935178	Fluoride	101	102	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P333654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935154	Organic Carbon	102	101	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P333050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1935465	Acetaminophen	98.9	96.0	P/P	30 - 150
1935465	Bentazon	18.5	18.0	F/F	30 - 150
1935465	Carbamazepine	83.5	78.7	P/P	40 - 150
1935465	Diuron	58.1	56.6	P/P	40 - 150
1935465	Fenuron	88.5	85.1	P/P	40 - 150
1935465	Fluridone	82.4	80.9	P/P	40 - 150
1935465	Imidacloprid	177	168	F/F	40 - 160
1935465	Linuron	76.8	75.3	P/P	40 - 150
1935465	MCP	44.5	44.8	P/P	40 - 150
1935465	Primidone	114	116	P/P	40 - 150
1935465	Triclopyr	38.5	37.2	F/F	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P333095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935171	Turbidity	8.26	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P333197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935292	Calcium	0.380	Spike	P	0 - 20
1935292	Iron	0.843	Spike	P	0 - 20
1935292	Magnesium	1.10	Spike	P	0 - 20
1935292	Potassium	0.0289	Spike	P	0 - 20
1935292	Sodium	0.230	Spike	P	0 - 20
1935292	Zinc	0.291	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P333197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935292	Arsenic	0.0713	Spike	P	0 - 20
1935292	Cadmium	2.24	Spike	P	0 - 20
1935292	Chromium	0.760	Spike	P	0 - 20
1935292	Copper	0.374	Spike	P	0 - 20
1935292	Lead	1.28	Spike	P	0 - 20
1935292	Nickel	0.723	Spike	P	0 - 20
1935292	Silver	1.64	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P333240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935212	Chloride	0.233	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935142	Ammonia-N	1.91	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P333394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935199	Ammonia-N	0.00344	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935180	Kjeldahl Nitrogen	4.74	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P333493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935213	Kjeldahl Nitrogen	0.0797	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P333338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935197	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935151	Total-P	0.436	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P333267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935210	Total-P	3.15	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935202	O-Phosphate-P	0.634	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P333135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935214	O-Phosphate-P	2.17	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P333058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1934725	Acetochlor	8.00	Spike	P	0 - 30
1934725	Alachlor	4.19	Spike	P	0 - 30
1934725	Ametryn	14.5	Spike	P	0 - 30
1934725	Atrazine	12.0	Spike	P	0 - 30
1934725	Atrazine Desethyl	3.90	Spike	P	0 - 30
1934725	Azinphos Methyl	10.0	Spike	P	0 - 30
1934725	Bromacil	6.31	Spike	P	0 - 30
1934725	Butylate	2.99	Spike	P	0 - 30
1934725	Chlorpyrifos Ethyl	2.23	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P333058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1934725	Chlorpyrifos Methyl	9.54	Spike	P	0 - 30
1934725	Cyanazine	18.1	Spike	P	0 - 30
1934725	Demeton	4.53	Spike	P	0 - 30
1934725	Diazinon	9.33	Spike	P	0 - 30
1934725	Disulfoton	13.5	Spike	P	0 - 30
1934725	EPTC	4.02	Spike	P	0 - 30
1934725	Ethion	5.04	Spike	P	0 - 30
1934725	Ethoprop	10.6	Spike	P	0 - 30
1934725	Fenamiphos	5.30	Spike	P	0 - 30
1934725	Fipronil	3.91	Spike	P	0 - 30
1934725	Fipronil Sulfide	1.44	Spike	P	0 - 30
1934725	Fipronil Sulfone	1.71	Spike	P	0 - 30
1934725	Fonofos	9.77	Spike	P	0 - 30
1934725	Hexazinone	5.67	Spike	P	0 - 30
1934725	Malathion	3.32	Spike	P	0 - 30
1934725	Metalaxyl	1.73	Spike	P	0 - 30
1934725	Metolachlor	5.17	Spike	P	0 - 30
1934725	Metribuzin	1.49	Spike	P	0 - 30
1934725	Mevinphos	1.67	Spike	P	0 - 30
1934725	Molinate	12.9	Spike	P	0 - 30
1934725	Norflurazon	5.62	Spike	P	0 - 30
1934725	Parathion Ethyl	1.99	Spike	P	0 - 30
1934725	Parathion Methyl	4.70	Spike	P	0 - 30
1934725	Pendimethalin	2.16	Spike	P	0 - 30
1934725	Phorate	2.70	Spike	P	0 - 30
1934725	Prometon	2.42	Spike	P	0 - 30
1934725	Prometryn	4.80	Spike	P	0 - 30
1934725	Simazine	14.7	Spike	P	0 - 30
1934725	Terbufos	3.22	Spike	P	0 - 30
1934725	Terbutylazine	8.38	Spike	P	0 - 30
LFB	Acetochlor	12.8	LCS	P	0 - 30
LFB	Alachlor	5.87	LCS	P	0 - 30
LFB	Ametryn	2.13	LCS	P	0 - 30
LFB	Atrazine	2.13	LCS	P	0 - 30
LFB	Atrazine Desethyl	12.7	LCS	P	0 - 30
LFB	Azinphos Methyl	11.0	LCS	P	0 - 30
LFB	Bromacil	9.13	LCS	P	0 - 30
LFB	Butylate	31.3	LCS	F	0 - 30
LFB	Chlorpyrifos Ethyl	8.31	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.83	LCS	P	0 - 30
LFB	Cyanazine	46.0	LCS	F	0 - 30
LFB	Demeton	13.4	LCS	P	0 - 30
LFB	Diazinon	27.4	LCS	P	0 - 30
LFB	Disulfoton	4.96	LCS	P	0 - 30
LFB	EPTC	29.4	LCS	P	0 - 30
LFB	Ethion	14.3	LCS	P	0 - 30
LFB	Ethoprop	8.06	LCS	P	0 - 30
LFB	Fenamiphos	14.2	LCS	P	0 - 30
LFB	Fipronil	6.36	LCS	P	0 - 30
LFB	Fipronil Sulfide	20.2	LCS	P	0 - 30
LFB	Fipronil Sulfone	27.2	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P333058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fonofos	9.22	LCS	P	0 - 30
LFB	Hexazinone	12.7	LCS	P	0 - 30
LFB	Malathion	15.7	LCS	P	0 - 30
LFB	Metalaxyl	0.535	LCS	P	0 - 30
LFB	Metolachlor	4.61	LCS	P	0 - 30
LFB	Metribuzin	43.2	LCS	F	0 - 30
LFB	Mevinphos	7.15	LCS	P	0 - 30
LFB	Molinate	23.7	LCS	P	0 - 30
LFB	Norflurazon	5.47	LCS	P	0 - 30
LFB	Parathion Ethyl	0.00561	LCS	P	0 - 30
LFB	Parathion Methyl	11.6	LCS	P	0 - 30
LFB	Pendimethalin	2.27	LCS	P	0 - 30
LFB	Phorate	3.17	LCS	P	0 - 30
LFB	Prometon	8.67	LCS	P	0 - 30
LFB	Prometryn	7.21	LCS	P	0 - 30
LFB	Simazine	0.503	LCS	P	0 - 30
LFB	Terbufos	5.71	LCS	P	0 - 30
LFB	Terbutylazine	0.218	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P333650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935886	Aldrin	9.37	Spike	P	0 - 30
1935886	Alpha-BHC	4.82	Spike	P	0 - 30
1935886	Alpha-Chlordane	5.19	Spike	P	0 - 30
1935886	Beta-BHC	7.88	Spike	P	0 - 30
1935886	Carbophenothion	3.28	Spike	P	0 - 30
1935886	Chlorothalonil	7.22	Spike	P	0 - 30
1935886	Cypermethrin	11.6	Spike	P	0 - 30
1935886	DDD-p,p'	4.97	Spike	P	0 - 30
1935886	DDE-p,p'	6.38	Spike	P	0 - 30
1935886	DDT-p,p'	2.19	Spike	P	0 - 30
1935886	Delta-BHC	20.3	Spike	P	0 - 30
1935886	Dicofol	0.105	Spike	P	0 - 30
1935886	Dieldrin	1.29	Spike	P	0 - 30
1935886	Endosulfan I	2.38	Spike	P	0 - 30
1935886	Endosulfan II	5.91	Spike	P	0 - 30
1935886	Endosulfan Sulfate	7.41	Spike	P	0 - 30
1935886	Endrin	0.745	Spike	P	0 - 30
1935886	Endrin Aldehyde	7.24	Spike	P	0 - 30
1935886	Endrin Ketone	3.07	Spike	P	0 - 30
1935886	Gamma-BHC	49.1	Spike	F	0 - 30
1935886	Gamma-Chlordane	6.25	Spike	P	0 - 30
1935886	Heptachlor	5.05	Spike	P	0 - 30
1935886	Heptachlor Epoxide	0.398	Spike	P	0 - 30
1935886	Methoxychlor	6.00	Spike	P	0 - 30
1935886	Mirex	10.2	Spike	P	0 - 30
1935886	Permethrin	7.03	Spike	P	0 - 30
1935886	Trifluralin	1.10	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P333650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	3.14	LCS	P	0 - 30
LFB	Alpha-BHC	0.00239	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.49	LCS	P	0 - 30
LFB	Beta-BHC	12.2	LCS	P	0 - 30
LFB	Carbophenothion	0.426	LCS	P	0 - 30
LFB	Chlorothalonil	20.0	LCS	P	0 - 30
LFB	Cypermethrin	4.13	LCS	P	0 - 30
LFB	DDD-p,p'	1.62	LCS	P	0 - 30
LFB	DDE-p,p'	2.03	LCS	P	0 - 30
LFB	DDT-p,p'	0.980	LCS	P	0 - 30
LFB	Delta-BHC	4.81	LCS	P	0 - 30
LFB	Dicofol	2.34	LCS	P	0 - 30
LFB	Dieldrin	7.10	LCS	P	0 - 30
LFB	Endosulfan I	1.51	LCS	P	0 - 30
LFB	Endosulfan II	0.640	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.16	LCS	P	0 - 30
LFB	Endrin	4.34	LCS	P	0 - 30
LFB	Endrin Aldehyde	12.9	LCS	P	0 - 30
LFB	Endrin Ketone	0.0586	LCS	P	0 - 30
LFB	Gamma-BHC	5.24	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.52	LCS	P	0 - 30
LFB	Heptachlor	1.59	LCS	P	0 - 30
LFB	Heptachlor Epoxide	8.77	LCS	P	0 - 30
LFB	Methoxychlor	1.09	LCS	P	0 - 30
LFB	Mirex	9.17	LCS	P	0 - 30
LFB	Permethrin	2.76	LCS	P	0 - 30
LFB	Trifluralin	1.78	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1934227	Pyraclostrobin	16.0	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P333049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935016	Sucralose	17.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P333126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935261	Glyphosate	1.35	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
 Batch ID: P333101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935194	Color (true)	1.32	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P333524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935178	Total Alkalinity	0.109	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
 Batch ID: P333824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935178	TDS	1.31	Sample	P	0 - 10

Reference Method: SM 2540 C-97
 Batch ID: P333825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935212	TDS	3.10	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P333527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935178	Fluoride	0.473	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P333654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935154	Organic Carbon	0.820	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P333050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935465	2,4-D	3.65	Spike	P	0 - 30
1935465	Acetaminophen	2.98	Spike	P	0 - 30
1935465	Bentazon	2.52	Spike	P	0 - 30
1935465	Carbamazepine	5.92	Spike	P	0 - 30
1935465	Diuron	1.45	Spike	P	0 - 30
1935465	Fenuron	3.92	Spike	P	0 - 30
1935465	Fluridone	1.69	Spike	P	0 - 30
1935465	Imidacloprid	3.80	Spike	P	0 - 30
1935465	Linuron	1.97	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P333050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1935465	MCP	0.672	Spike	P	0 - 30
1935465	Primidone	1.83	Spike	P	0 - 30
1935465	Triclopyr	3.33	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: 1935260
Field Sample ID: 32008010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	75.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.3	P	30 - 160
EPA 8321B	Diuron-d6	59.8	P	30 - 160
EPA 8321B	Primidone-d5	93.3	P	30 - 160
EPA 8321B	Sucralose-d6	81.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	59.2	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	75.7	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	90.3	P	30 - 160
USGS O-2060-01	Diuron-d6	59.8	P	30 - 160
USGS O-2060-01	Primidone-d5	93.3	P	30 - 160
USGS O-2060-01	Sucralose-d6	81.2	P	40 - 160

Lab Sample ID: 1935261
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	78.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.8	P	30 - 160
EPA 8321B	Diuron-d6	45.4	P	30 - 160
EPA 8321B	Diuron-d6	91.3	P	30 - 160
EPA 8321B	Diuron-d6	45.4	P	30 - 160
EPA 8321B	Diuron-d6	91.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	123	P	40 - 160
EPA 8321B	Primidone-d5	85.7	P	30 - 160
EPA 8321B	Primidone-d5	85.7	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	40 - 160
EPA 8321B	Sucralose-d6	116	P	40 - 160
USGS O-2060-01	2,4-D-d3	49.1	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	78.8	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	64.8	P	30 - 160
USGS O-2060-01	Diuron-d6	45.4	P	30 - 160
USGS O-2060-01	Diuron-d6	91.3	P	30 - 160
USGS O-2060-01	Primidone-d5	85.7	P	30 - 160
USGS O-2060-01	Sucralose-d6	116	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1935262
Field Sample ID: G3SE0015

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	72.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.4	P	30 - 160
EPA 8321B	Diuron-d6	61.7	P	30 - 160
EPA 8321B	Diuron-d6	97.9	P	30 - 160
EPA 8321B	Diuron-d6	61.7	P	30 - 160
EPA 8321B	Diuron-d6	97.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	40 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	125	P	40 - 160
EPA 8321B	Sucralose-d6	125	P	40 - 160
USGS O-2060-01	2,4-D-d3	48.5	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	72.1	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	88.4	P	30 - 160
USGS O-2060-01	Diuron-d6	61.7	P	30 - 160
USGS O-2060-01	Diuron-d6	97.9	P	30 - 160
USGS O-2060-01	Primidone-d5	104	P	30 - 160
USGS O-2060-01	Sucralose-d6	125	P	40 - 160

Lab Sample ID: 1935263
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	89.3	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	58.4	P	32 - 103

Lab Sample ID: 1935264
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	62.5	P	53 - 135
EPA 8270D	Simazine-d10	95.1	P	71 - 126

Lab Sample ID: 1935265
Field Sample ID: G3SE0015

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	70.0	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	44.3	P	32 - 103

Lab Sample ID: 1935266
Field Sample ID: G3SE0015

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	77.4	P	53 - 135
EPA 8270D	Simazine-d10	94.5	P	71 - 126

Quality Assurance Report Calibration Verification

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A79470

Included Lab Sample IDs: 1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212

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

Reference Method: SM 2120 B

Run ID: A79471

Included Lab Sample IDs: 1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	101	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A79473

Included Lab Sample IDs: 1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	104	P/P	90 - 110
Chloride	104	104	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A79477

Included Lab Sample IDs: 1935200, 1935201, 1935202, 1935205, 1935208, 1935211, 1935214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	100	98.6	P/P	90 - 110
O-Phosphate-P	102	100	P/P	90 - 110
O-Phosphate-P	97.2	102	P/P	90 - 110
O-Phosphate-P	98.6	98.6	P/P	90 - 110
O-Phosphate-P	98.6	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79478

Included Lab Sample IDs: 1935261, 1935262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	104	103	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A79478

Included Lab Sample IDs: 1935260, 1935261, 1935262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.7	95.9	P/P	50 - 150
Acetaminophen	93.9	91.4	P/P	60 - 150
Bentazon	90.6	90.6	P/P	50 - 150
Carbamazepine	97.9	97.3	P/P	60 - 150
Diuron	102	98.9	P/P	60 - 150
Fenuron	93.9	95.2	P/P	60 - 150
Fluridone	107	109	P/P	60 - 160
Imidacloprid	92.1	96.2	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A79478

Included Lab Sample IDs: 1935260, 1935261, 1935262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	98.2	103	P/P	60 - 150
MCP	95.0	97.7	P/P	50 - 150
Primidone	96.6	98.3	P/P	60 - 150
Tricopyr	96.4	101	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79512

Included Lab Sample IDs: 1935197, 1935198, 1935204, 1935207

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79513

Included Lab Sample IDs: 1935199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A79524

Included Lab Sample IDs: 1935278, 1935279, 1935280, 1935281

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	105	P/P	90 - 110
Iron	102	106	P/P	90 - 110
Magnesium	103	107	P/P	90 - 110
Potassium	102	105	P/P	90 - 110
Sodium	103	106	P/P	90 - 110
Zinc	97.8	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79536

Included Lab Sample IDs: 1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO ₂ NO ₃ -N	102	102	P/P	90 - 110
NO ₂ NO ₃ -N	102	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79537

Included Lab Sample IDs: 1935261, 1935262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	96.1	93.1	P/P	70 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79555

Included Lab Sample IDs: 1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79555

Included Lab Sample IDs: 1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	102	101	P/P	90 - 110
Ammonia-N	99.4	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79567

Included Lab Sample IDs: 1935210

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79578

Included Lab Sample IDs: 1935213

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

Reference Method: EPA 8321B

Run ID: A79590

Included Lab Sample IDs: 1935260, 1935261, 1935262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.6	93.7	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79601

Included Lab Sample IDs: 1935197, 1935198, 1935199, 1935204, 1935207, 1935210

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	104	P/P	90 - 110
Kjeldahl Nitrogen	106	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79618

Included Lab Sample IDs: 1935278, 1935279, 1935280, 1935281

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	101	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Cadmium	101	104	P/P	90 - 110
Chromium	98.4	101	P/P	90 - 110
Chromium	99.6	98.4	P/P	90 - 110
Copper	100	100	P/P	90 - 110
Copper	100	99.5	P/P	90 - 110
Lead	96.6	97.1	P/P	90 - 110
Lead	97.1	97.9	P/P	90 - 110
Nickel	99.4	99.9	P/P	90 - 110
Nickel	99.9	99.7	P/P	90 - 110
Silver	94.9	95.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79618

Included Lab Sample IDs: 1935278, 1935279, 1935280, 1935281

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	95.6	96.7	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A79620

Included Lab Sample IDs: 1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	99.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79620

Included Lab Sample IDs: 1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A79655

Included Lab Sample IDs: 1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	102	P/P	90 - 110
Organic Carbon	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79702

Included Lab Sample IDs: 1935213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.2	103	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A79724

Included Lab Sample IDs: 1935263, 1935265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.3		P	80 - 120
Alpha-BHC	99.8		P	80 - 120
Alpha-Chlordane	97.4		P	80 - 120
Beta-BHC	98.0		P	80 - 120
Carbophenothion	95.3		P	80 - 120
Chlorothalonil	103		P	80 - 120
Cypermethrin	93.4		P	80 - 120
DDD-p,p'	95.1		P	80 - 120
DDE-p,p'	99.0		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	97.7		P	80 - 120
Dicofol	86.5		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	98.9		P	80 - 120
Endosulfan II	93.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A79724

Included Lab Sample IDs: 1935263, 1935265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan Sulfate	95.4		P	80 - 120
Endrin	99.9		P	80 - 120
Endrin Aldehyde	88.9		P	80 - 120
Endrin Ketone	96.5		P	80 - 120
Gamma-BHC	89.6		P	80 - 120
Gamma-Chlordane	97.1		P	80 - 120
Heptachlor	98.4		P	80 - 120
Heptachlor Epoxide	97.8		P	80 - 120
Methoxychlor	111		P	80 - 120
Mirex	98.4		P	80 - 120
Permethrin	97.2		P	80 - 120
Trifluralin	98.4		P	80 - 120

Reference Method: EPA 8270D

Run ID: A79784

Included Lab Sample IDs: 1935264, 1935266

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	93.7		P	80 - 120
Atrazine	97.2		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	88.1		P	80 - 120
Bromacil	97.8		P	80 - 120
Butylate	97.2		P	80 - 120
Chlorpyrifos Ethyl	98.6		P	80 - 120
Chlorpyrifos Methyl	98.5		P	80 - 120
Cyanazine	83.9		P	80 - 120
Demeton	97.4		P	80 - 120
Diazinon	96.4		P	80 - 120
Disulfoton	89.3		P	80 - 120
EPTC	95.4		P	80 - 120
Ethion	94.7		P	80 - 120
Ethoprop	97.3		P	80 - 120
Fenamiphos	93.0		P	80 - 120
Fipronil	97.9		P	80 - 120
Fipronil Sulfide	94.5		P	80 - 120
Fipronil Sulfone	97.0		P	80 - 120
Fonofos	93.7		P	80 - 120
Hexazinone	98.6		P	80 - 120
Malathion	91.2		P	80 - 120
Metalaxyl	95.5		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	75.0*		F	80 - 120
Mevinphos	94.5		P	80 - 120
Molinate	99.8		P	80 - 120
Norflurazon	95.8		P	80 - 120
Parathion Ethyl	99.7		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A79784

Included Lab Sample IDs: 1935264, 1935266

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phorate	97.4		P	80 - 120
Prometon	97.5		P	80 - 120
Prometryn	96.6		P	80 - 120
Simazine	92.8		P	80 - 120
Terbufos	94.0		P	80 - 120
Terbutylazine	97.7		P	80 - 120

Reference Method: EPA 8270D

Run ID: A79788

Included Lab Sample IDs: 1935264

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metribuzin	98.1		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							8.26	
EPA 200.7 Rev. 4.4	Calcium	107		107	103				0.380
	Iron	110		109	113	112			0.843
	Magnesium	113		111	113	112			1.10
	Potassium	106		102	112	112			0.0289
	Sodium	111		107	113	113			0.230
	Zinc	105		105	105	104			0.291
EPA 200.8 Rev. 5.4	Arsenic	97.4		98.0	96.9	96.9			0.0713
	Cadmium	99.1		103	102	99.6			2.24
	Chromium	95.4		95.4	96.0	95.2			0.760
	Copper	94.5		95.2	90.6	91.0			0.374
	Lead	93.7		94.0	94.0	92.8			1.28
	Nickel	97.0		96.7	93.6	94.3			0.723
	Silver	94.4		95.0	95.7	94.2			1.64
EPA 300.0 Rev. 2.1	Chloride	102		102	102			0.233	
	Sulfate	98.1		98.6	99.1				
EPA 350.1 Rev. 2.0	Ammonia-N	100		100	97.1				1.91
	Ammonia-N	102		101	101				0.0034
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106		106	100				4.74
	Kjeldahl Nitrogen	102		92.5	92.3				0.0797
EPA 353.2 Rev. 2.0	NO2NO3-N	103		103	103				0.0
EPA 365.1 Rev. 2.0	Total-P	100		98.8	99.3				0.436
	Total-P	101		102	98.6				3.15
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104		95.0	94.4				0.634
	O-Phosphate-P	96.5		97.9	95.8				2.17
EPA 8270D	Acetochlor	91.8	104	96.2	104		12.8		8.00
	Alachlor	97.6	103	95.5	99.6		5.87		4.19

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Aldrin	85.7	83.1	81.4	89.4	3.14		9.37
	Alpha-BHC	105	105	115	110	0.0023		4.82
	Alpha-Chlordane	102	107	103	109	4.49		5.19
	Ametryn	91.5	89.5	89.6	69.8	2.13		14.5
	Atrazine	93.2	95.2			2.13		12.0
	Atrazine Desethyl	99.5	113	96.9	92.7	12.7		3.90
	Azinphos Methyl	95.5	107	99.6	110	11.0		10.0
	Beta-BHC	127	112	109	118	12.2		7.88
	Bromacil	90.4	82.5	101	107	9.13		6.31
	Butylate	78.4	57.2	59.4	57.6	31.3		2.99
	Carbophenothion	147	147	168	163	0.426		3.28
	Chlorothalonil	83.9	103	166	155	20.0		7.22
	Chlorpyrifos Ethyl	94.2	86.7	81.4	83.2	8.31		2.23
	Chlorpyrifos Methyl	89.0	97.2	94.4	104	8.83		9.54
	Cyanazine	97.6	156	134	160	46.0		18.1
	Cypermethrin	151	144	123	138	4.13		11.6
	DDD-p,p'	109	111	106	112	1.62		4.97
	DDE-p,p'	103	105	100	107	2.03		6.38
	DDT-p,p'	120	118	116	118	0.980		2.19
	Delta-BHC	122	128	123	150	4.81		20.3
	Demeton	97.1	84.9	83.0	86.9	13.4		4.53
	Diazinon	87.2	115	110	121	27.4		9.33
	Dicofol	29.2	29.9	31.0	30.9	2.34		0.105
	Dieldrin	117	125	119	121	7.10		1.29
	Disulfoton	103	108	106	121	4.96		13.5
	Endosulfan I	112	114	120	122	1.51		2.38
	Endosulfan II	118	119	119	126	0.640		5.91
	Endosulfan Sulfate	114	112	112	121	2.16		7.41
	Endrin	115	120	123	124	4.34		0.745
	Endrin Aldehyde	102	116	112	120	12.9		7.24
	Endrin Ketone	114	114	115	118	0.0586		3.07
	EPTC	73.3	54.5	57.4	55.2	29.4		4.02
	Ethion	95.8	83.0	78.4	82.5	14.3		5.04
	Ethoprop	83.1	90.1	99.7	111	8.06		10.6
	Fenamiphos	99.1	85.9	88.6	84.0	14.2		5.30
	Fipronil	95.9	102	107	111	6.36		3.91
	Fipronil Sulfide	93.5	76.3	82.7	84.2	20.2		1.44
	Fipronil Sulfone	89.7	68.2	71.4	73.2	27.2		1.71
	Fonofos	84.8	93.0	98.2	108	9.22		9.77
	Gamma-BHC	116	122	121	73.6	5.24		49.1
	Gamma-Chlordane	98.9	102	98.8	105	3.52		6.25
	Heptachlor	89.1	87.7	87.7	92.2	1.59		5.05
	Heptachlor Epoxide	99.9	109	109	109	8.77		0.398
	Hexazinone	93.2	82.1	87.4	94.3	12.7		5.67
	Malathion	92.8	79.2	95.9	99.2	15.7		3.32
	Metalaxyl	91.5	91.0	99.2	97.5	0.535		1.73
	Methoxychlor	127	128	141	133	1.09		6.00
	Metolachlor	98.7	94.3	93.1	98.1	4.61		5.17
	Metribuzin	72.6	113	124	123	43.2		1.49
	Mevinphos	86.2	80.2	91.1	92.6	7.15		1.67
	Mirex	94.1	85.9	79.3	87.8	9.17		10.2
	Molinate	73.8	58.2	49.1	55.9	23.7		12.9
	Norflurazon	92.6	87.7	82.2	86.9	5.47		5.62
	Parathion Ethyl	89.1	89.1	92.3	94.2	0.0056		1.99

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Parathion Methyl	93.5	105	109	114	11.6	4.70
	Pendimethalin	91.3	93.4	102	99.3	2.27	2.16
	Permethrin	122	118	108	116	2.76	7.03
	Phorate	85.4	88.2	90.2	87.8	3.17	2.70
	Prometon	93.1	85.4	86.2	81.8	8.67	2.42
	Prometryn	94.5	102	95.3	100	7.21	4.80
	Simazine	96.7	96.2	94.4	113	0.503	14.7
	Terbufos	86.0	91.1	98.7	102	5.71	3.22
	Terbutylazine	92.3	92.1	92.1	100	0.218	8.38
	Trifluralin	93.6	91.9	96.1	97.1	1.78	1.10
EPA 8321B	Glyphosate	115		122	123		1.35
	Pyraclostrobin	105		101	119		16.0
	Sucralose	116		66.8	86.8		17.9
SM 2120 B	Color (true)					1.32	
SM 2320 B-97	Total Alkalinity	102				0.109	
SM 2540 C-97	TDS					1.31	
	TDS					3.10	
SM 4500 F-C-97	Fluoride	98.6		101	102		0.473
SM 5310 B-00	Organic Carbon	100		102	101		0.820
USGS O-2060-01	2,4-D	63.2					3.65
	Acetaminophen	111		98.9	96.0		2.98
	Bentazon	30.3		18.5	18.0		2.52
	Carbamazepine	104		83.5	78.7		5.92
	Diuron	99.7		58.1	56.6		1.45
	Fenuron	93.4		88.5	85.1		3.92
	Fluridone	109		82.4	80.9		1.69
	Imidacloprid	92.6		177	168		3.80
	Linuron	94.7		76.8	75.3		1.97
	MCPP	63.8		44.5	44.8		0.672
	Primidone	97.1		114	116		1.83
	Triclopyr	62.7		38.5	37.2		3.33

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1935278, 1935279, 1935280, 1935281
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1935278, 1935279, 1935280, 1935281
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1935200, 1935201, 1935202, 1935205, 1935208, 1935211, 1935214

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1935263, 1935265
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1935264, 1935266
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1935260, 1935261, 1935262
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1935261, 1935262
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1935261, 1935262
SM 2120 B / E31780	True Color measured at 450 nm	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1935260, 1935261, 1935262
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1935260, 1935261, 1935262

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	10/10/2017			10/10/2017 16:21	DeAsia Armster	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
EPA 200.7 Rev. 4.4	10/10/2017	10/11/2017	Elliott D. Healy	10/13/2017	Betina Topolski	1935278, 1935279, 1935280, 1935281
EPA 200.8 Rev. 5.4	10/10/2017	10/11/2017	Elliott D. Healy	10/17/2017	Robert K Palmer	1935278, 1935279, 1935280, 1935281
EPA 300.0 Rev. 2.1	10/10/2017			10/10/2017	Julia Storbeck	1935212
	10/10/2017			10/11/2017	Julia Storbeck	1935194, 1935195, 1935196, 1935203, 1935206, 1935209
EPA 350.1 Rev. 2.0	10/10/2017			10/13/2017	Sofia Elnemr	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
EPA 351.2 Rev. 2.0	10/10/2017	10/16/2017	Adrian Shelby	10/17/2017	Virginia P. Brown	1935197, 1935198, 1935199, 1935204, 1935207, 1935210
	10/10/2017	10/17/2017	Adrian Shelby	10/18/2017	Joseph Suarez	1935213
EPA 353.2 Rev. 2.0	10/10/2017			10/13/2017	Beverly Y. Sanders	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
EPA 365.1 Rev. 2.0	10/10/2017	10/11/2017	Sima Feizi	10/12/2017	Lipi Saha	1935197, 1935198, 1935199, 1935204, 1935207
	10/10/2017	10/12/2017	Sima Feizi	10/13/2017	Lipi Saha	1935210
	10/10/2017	10/12/2017	Sima Feizi	10/16/2017	Lipi Saha	1935213
EPA 365.1 Rev. 2.0 dissolved	10/10/2017			10/10/2017 15:13	Megan Treadwell	1935202
	10/10/2017			10/10/2017 15:40	Megan Treadwell	1935208
	10/10/2017			10/10/2017 15:45	Megan Treadwell	1935211
	10/10/2017			10/10/2017 16:00	Megan Treadwell	1935201
	10/10/2017			10/10/2017 16:14	Megan Treadwell	1935200
	10/10/2017			10/10/2017 16:15	Megan Treadwell	1935205
	10/10/2017			10/10/2017 16:28	Megan Treadwell	1935214
EPA 8270D	10/10/2017	10/10/2017	Rasheda Ghaffari	10/14/2017	Irina Carbone	1935264, 1935266
	10/10/2017	10/10/2017	Rasheda Ghaffari	10/24/2017	Irina Carbone	1935264
	10/10/2017	10/12/2017	Rasheda Ghaffari	10/18/2017	Vandana T. Nagar	1935263, 1935265
EPA 8321B	10/10/2017	10/10/2017	Hoor Shaik	10/11/2017	Julie Michelle Frank	1935261, 1935262
	10/10/2017	10/12/2017	Juyoung Kim	10/12/2017	Juyoung Kim	1935260, 1935261, 1935262
	10/10/2017	10/13/2017	Julie Michelle Frank	10/13/2017	Juyoung Kim	1935261, 1935262
SM 2120 B	10/10/2017			10/10/2017 16:06	Julia Storbeck	1935194
	10/10/2017			10/10/2017 16:08	Julia Storbeck	1935195
	10/10/2017			10/10/2017 16:09	Julia Storbeck	1935196, 1935203
	10/10/2017			10/10/2017 16:10	Julia Storbeck	1935206
	10/10/2017			10/10/2017 16:11	Julia Storbeck	1935209
	10/10/2017			10/10/2017 16:12	Julia Storbeck	1935212
SM 2320 B-97	10/10/2017			10/17/2017	Dale L. Simmons	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 2540 C-97	10/10/2017			10/11/2017	Yijie Li	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	10/10/2017			10/11/2017	Yijie Li	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 4500 F-C-97	10/10/2017			10/17/2017	Dale L. Simmons	1935194, 1935195, 1935196, 1935203, 1935206, 1935209, 1935212
SM 5310 B-00	10/10/2017			10/19/2017	Ping Hua	1935197, 1935198, 1935199, 1935204, 1935207, 1935210, 1935213
USGS O-2060-01	10/10/2017	10/12/2017	Hoor Shaik	10/13/2017	Julie Michelle Frank	1935260, 1935261, 1935262