

Chemical Analysis Report

NW-DIST-2017-09-13-01

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

Event Description: **South Milton Run WBID 534 18 10G 11A 18 260 537A 833 635**
Request ID: **RQ-2017-09-11-30**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

For additional information please contact
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Certified by: Colin Wright, Program Administrator

Date Certified: 04-OCT-2017 12:39

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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: TOM KING BAYOU CREEK

Collection Date/Time: 09/12/2017 10:55

Field ID: G4NW0193

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928828	EPA 180.1 Rev. 2.0	Turbidity	7.6		NTU	P331612	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P331809	
		Sulfate	8.1		mg SO4/L	P331808	
	SM 2120 B	Color (true)	64	A	PCU	P331601	
	SM 2320 B-97	Total Alkalinity	8.1		mg CaCO3/L	P331803	
	SM 2540 C-97	TDS	76		mg/L	P332118	
	SM 2540 D-97	TSS	2	I	mg/L	P332121	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P331805	
1928833	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P331954	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P331800	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.69		mg N/L	P331813	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P331630	
	SM 5310 B-00	Organic Carbon	4.4		mg C/L	P331963	
1928838	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P331592	

Ref. Method and Comment:

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

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: JAKES BAYOU ABOVE ROBINSON ROAD

Collection Date/Time: 09/12/2017 11:50

Field ID: G4NW0394

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928829	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P331612	
	EPA 300.0 Rev. 2.1	Chloride	1.7E+03		mg Cl/L	P331809	
		Sulfate	240		mg SO4/L	P331808	
	SM 2120 B	Color (true)	43		PCU	P331601	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P331872	
	SM 2540 C-97	TDS	3.08E+03		mg/L	P332119	
	SM 2540 D-97	TSS	4	I	mg/L	P332122	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P331873	
1928834	EPA 350.1 Rev. 2.0	Ammonia-N	0.044		mg N/L	P331946	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P331799	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P331672	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P331788	
	SM 5310 B-00	Organic Carbon	7.5		mg C/L	P331963	
1928839	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331593	

Ref. Method and Comment:

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

Sample Location: SANDY POINT BAYOU BELOW SANDY POINT ST

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

Field ID: G4NW0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928830	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P331612	

Field ID: G4NW0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928830	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P331809	
		Sulfate	0.50		mg SO4/L	P331808	
	SM 2120 B	Color (true)	380		PCU	P331601	
	SM 2320 B-97	Total Alkalinity	9.7		mg CaCO3/L	P331803	
	SM 2540 C-97	TDS	93		mg/L	P332119	
	SM 2540 D-97	TSS	5	I	mg/L	P332122	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P331805	
1928835	EPA 350.1 Rev. 2.0	Ammonia-N	0.48		mg N/L	P331954	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P331800	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P331813	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P331630	
	SM 5310 B-00	Organic Carbon	26		mg C/L	P331963	
1928840	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331592	

Ref. Method and Comment:

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

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: WHITE OAK BAYOU

Collection Date/Time: 09/12/2017 12:30

Field ID: G4NW0386

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928843	EPA 180.1 Rev. 2.0	Turbidity	4.5	A	NTU	P331611	
	SM 2320 B-97	Total Alkalinity	9.8		mg CaCO3/L	P331803	
	SM 2540 D-97	TSS	4	I	mg/L	P332122	
	SM 4500 F-C-97	Fluoride	0.045	I	mg F/L	P331805	
1928844	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P331954	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P331800	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P331813	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P331630	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P332046	
1928845	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331592	

Ref. Method and Comment:

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

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: CLEAR CREEK ABV PAT BROWN RD.

Collection Date/Time: 09/12/2017 13:15

Field ID: G4NW0360

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928831	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P331612	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P331809	
		Sulfate	0.46	I	mg SO4/L	P331808	
	SM 2120 B	Color (true)	12		PCU	P331601	
	SM 2320 B-97	Total Alkalinity	2.7		mg CaCO3/L	P331803	
	SM 2540 C-97	TDS	31		mg/L	P332119	
	SM 2540 D-97	TSS	2	I	mg/L	P332122	

Field ID: G4NW0360

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928831	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P331805	
1928836	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P331954	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P331800	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.83		mg N/L	P331813	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P331630	
	SM 5310 B-00	Organic Carbon	0.99	I	mg C/L	P332046	
1928841	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331592	

Ref. Method and Comment:

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

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: WEST FORK BELOW HWY 87

Collection Date/Time: 09/12/2017 13:50

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928825	EPA 180.1 Rev. 2.0	Turbidity	2.6	A	NTU	P331612	
	EPA 300.0 Rev. 2.1	Chloride	5.8		mg Cl/L	P331809	
		Sulfate	0.86		mg SO4/L	P331808	
	SM 2120 B	Color (true)	14		PCU	P331601	
	SM 2320 B-97	Total Alkalinity	2.9		mg CaCO3/L	P331803	
	SM 2540 C-97	TDS	44		mg/L	P332118	
	SM 2540 D-97	TSS	3	I	mg/L	P332121	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P331805	
1928826	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P331954	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P331800	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.1		mg N/L	P331813	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P331629	
	SM 5310 B-00	Organic Carbon	1.4		mg C/L	P331963	
1928827	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331592	
1928856	EPA 200.7 Rev. 4.4	Calcium	2.59		mg/L	P331648	
		Iron	350		ug/L	P331648	
		Magnesium	2.13		mg/L	P331648	
		Potassium	0.98	I	mg/L	P331648	
		Sodium	2.4		mg/L	P331648	
		Zinc	5.0	U	ug/L	P331648	
	EPA 200.8 Rev. 5.4	Arsenic	0.18	I	ug/L	P331648	
		Cadmium	0.020	U	ug/L	P331648	
		Chromium	0.40	U	ug/L	P331648	
		Copper	0.24	I	ug/L	P331648	
		Lead	0.16	I	ug/L	P331648	
		Nickel	0.54	I	ug/L	P331648	
		Silver	0.010	U	ug/L	P331648	

Ref. Method and Comment:

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

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: WEST FORK BELOW HWY 87

Collection Date/Time: 09/12/2017 13:50

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928853	EPA 8321B USGS O-2060-01	Glyphosate**	0.50	U	ug/L	P331647	
		Pyraclostrobin**	0.0020	U	ug/L	P331787	
		Sucralose**	0.017	I	ug/L	P331679	
		2,4-D	0.0020	U	ug/L	P331678	
		Diuron	8.0E-04	U	ug/L	P331678	
		Fenuron	0.0080	U	ug/L	P331678	
		Imidacloprid	0.0011	I	ug/L	P331678	
		Bentazon	0.0024	I	ug/L	P331678	MS
		Linuron	0.0040	U	ug/L	P331678	
		Acetaminophen**	0.0080	U	ug/L	P331678	
		MCP	0.0020	U	ug/L	P331678	
		Carbamazepine**	4.0E-04	U	ug/L	P331678	
		Triclopyr**	0.0040	U	ug/L	P331678	
		Primidone**	0.0040	U	ug/L	P331678	
		Fluridone**	4.0E-04	U	ug/L	P331678	RPD
1928854	EPA 8270D	Aldrin	4.2	U	ng/L	P331793	
		Alpha-BHC	2.1	U	ng/L	P331793	
		Beta-BHC	4.2	U	ng/L	P331793	RPD
		Delta-BHC	4.2	U	ng/L	P331793	MS, RPD
		Gamma-BHC	4.2	U	ng/L	P331793	
		Carbophenothion	4.2	U	ng/L	P331793	MS, RPD
		Chlorothalonil	2.1	U	ng/L	P331793	RPD
		Cypermethrin	21	U	ng/L	P331793	
		DDD-p,p'	3.2	U	ng/L	P331793	
		DDE-p,p'	3.2	U	ng/L	P331793	
		DDT-p,p'	3.2	U	ng/L	P331793	
		Dieldrin	4.2	U	ng/L	P331793	
		Endosulfan I	4.2	U	ng/L	P331793	
		Endosulfan II	4.2	U	ng/L	P331793	
		Endosulfan Sulfate	2.1	U	ng/L	P331793	
		Endrin	2.1	U	ng/L	P331793	
		Endrin Aldehyde	2.1	U	ng/L	P331793	
		Heptachlor	1.6	U	ng/L	P331793	
		Heptachlor Epoxide	2.1	U	ng/L	P331793	
		Methoxychlor	4.2	U	ng/L	P331793	
		Mirex	2.1	U	ng/L	P331793	
		Permethrin	11	U	ng/L	P331793	
		Trifluralin	1.1	U	ng/L	P331793	
		Alpha-Chlordane	1.1	U	ng/L	P331793	
		Gamma-Chlordane	1.1	U	ng/L	P331793	
		Endrin Ketone	2.1	U	ng/L	P331793	
		Dicofol	32	U	ng/L	P331793	
	EPA 8276	Chlordane**	2.6	U	ng/L	P331793	
		Toxaphene**	13	U	ng/L	P331793	
1928855	EPA 8270D	Alachlor	1.5		ng/L	P331660	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928855	EPA 8270D	Ametryn	0.31	U	ng/L	P331660	
		Atrazine	0.41	I	ng/L	P331660	
		Atrazine Desethyl	1.4	UJ	ng/L	P331660	RPD
		Azinphos Methyl	2.2	U	ng/L	P331660	
		Bromacil	1.3	I	ng/L	P331660	
		Butylate	0.38	U	ng/L	P331660	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P331660	
		Chlorpyrifos Methyl	0.096	U	ng/L	P331660	
		Demeton	1.9	U	ng/L	P331660	
		Diazinon	0.12	U	ng/L	P331660	
		Disulfoton	0.48	U	ng/L	P331660	
		EPTC	1.2	U	ng/L	P331660	
		Ethion	0.14	U	ng/L	P331660	
		Ethoprop	0.096	U	ng/L	P331660	
		Fenamiphos	0.24	U	ng/L	P331660	
		Fipronil	0.24	U	ng/L	P331660	
		Fipronil Sulfide	0.14	U	ng/L	P331660	
		Fipronil Sulfone	0.14	U	ng/L	P331660	
		Hexazinone	6.8		ng/L	P331660	
		Malathion	0.34	U	ng/L	P331660	
		Metribuzin	0.19	UJ	ng/L	P331660	RPD
		Mevinphos	0.48	U	ng/L	P331660	
		Molinate	0.29	U	ng/L	P331660	
		Norflurazon	1.2	I	ng/L	P331660	
		Pendimethalin	0.96	U	ng/L	P331660	
		Phorate	0.24	U	ng/L	P331660	
		Prometon	0.87	U	ng/L	P331660	
		Prometryn	0.19	U	ng/L	P331660	
		Simazine	0.48	U	ng/L	P331660	
		Terbufos	0.096	U	ng/L	P331660	
		Terbuthylazine	0.41	U	ng/L	P331660	
		Fonofos	0.19	U	ng/L	P331660	
		Metalaxyl	0.22	I	ng/L	P331660	
		Metolachlor	9.9		ng/L	P331660	
		Acetochlor	0.24	U	ng/L	P331660	
		Cyanazine	0.48	UJ	ng/L	P331660	RPD
		Parathion Ethyl	0.24	U	ng/L	P331660	
		Parathion Methyl	0.24	U	ng/L	P331660	

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.

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

Sample Location: SEVENMILE CREEK ABV ALDERBROOK BLVD. Collection Date/Time: 09/12/2017 15:00

Field ID: G4NW0345

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G4NW0345

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928832	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P331612	
	EPA 300.0 Rev. 2.1	Chloride	6.3		mg Cl/L	P331809	
		Sulfate	1.0		mg SO4/L	P331808	
	SM 2120 B	Color (true)	8.3		PCU	P331601	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P331803	
	SM 2540 C-97	TDS	28		mg/L	P332119	
	SM 2540 D-97	TSS	2	U	mg/L	P332122	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P331805	
1928837	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P331954	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P331800	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P331813	
	EPA 365.1 Rev. 2.0	Total-P	0.003	I	mg P/L	P331630	
	SM 5310 B-00	Organic Carbon	1.2		mg C/L	P332046	
1928842	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331592	

Ref. Method and Comment:

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

EPA 353.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P331611

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P331612

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P331648

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: P331648

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P331648

Component	Result	Code	Units
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331808

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331809

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331946

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331954

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331799

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331800

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331672

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331813

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331629

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331630

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331788

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331592

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331593

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

Reference Method: EPA 8270D
 Batch ID: P331660

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D

Batch ID: P331660

Component	Result	Code	Units
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.0	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: P331793

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8276
Batch ID: P331793

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

Reference Method: EPA 8321B
Batch ID: P331647

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: EPA 8321B
Batch ID: P331679

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P331787

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P331601

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P331803

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

Reference Method: SM 2320 B-97
Batch ID: P331872

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

Reference Method: SM 2540 C-97
Batch ID: P332118

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P332119

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P332121

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332122

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P331805

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P331873

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P331963

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

Reference Method: SM 5310 B-00
Batch ID: P332046

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

Reference Method: USGS O-2060-01
Batch ID: P331678

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
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: P331648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	106		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	102		P	85 - 115
Sodium	107		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P331648

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.9		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	99.6		P	85 - 115
Copper	93.0		P	85 - 115
Lead	98.2		P	85 - 115
Nickel	94.8		P	85 - 115
Silver	99.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331809

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331946

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331954

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	108		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331799

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331800

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331813

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331629

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	91.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331630

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331788

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331592

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P331660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	111	98.1	P/P	78 - 118
Alachlor	108	97.3	P/P	77 - 119
Ametryn	103	101	P/P	61 - 136
Atrazine	107	93.8	P/P	73 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
 Batch ID: P331660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	85.4	56.1	P/P	16 - 122
Azinphos Methyl	139	111	P/P	69 - 186
Bromacil	102	90.3	P/P	40 - 125
Butylate	73.3	77.9	P/P	32 - 87.0
Chlorpyrifos Ethyl	95.7	95.0	P/P	53 - 110
Chlorpyrifos Methyl	102	88.2	P/P	31 - 119
Cyanazine	165	88.5	P/P	36 - 224
Demeton	97.2	91.2	P/P	39 - 122
Diazinon	114	99.0	P/P	75 - 119
Disulfoton	103	95.8	P/P	42 - 139
EPTC	68.9	72.4	P/P	33 - 96.0
Ethion	92.8	97.0	P/P	63 - 127
Ethoprop	91.6	83.6	P/P	65 - 107
Fenamiphos	97.3	92.2	P/P	64 - 137
Fipronil	114	103	P/P	60 - 126
Fipronil Sulfide	94.9	90.4	P/P	58 - 124
Fipronil Sulfone	88.6	88.5	P/P	57 - 126
Fonofos	94.6	79.6	P/P	65 - 111
Hexazinone	91.8	84.3	P/P	46 - 151
Malathion	92.5	93.1	P/P	68 - 132
Metalaxyl	105	82.3	P/P	51 - 132
Metolachlor	98.4	96.1	P/P	78 - 119
Metribuzin	114	58.2	P/P	58 - 148
Mevinphos	89.8	85.9	P/P	34 - 128
Molinate	78.4	81.2	P/P	44 - 101
Norflurazon	100	92.0	P/P	63 - 129
Parathion Ethyl	93.5	86.7	P/P	80 - 109
Parathion Methyl	114	101	P/P	74 - 125
Pendimethalin	95.5	87.9	P/P	48 - 134
Phorate	92.9	78.3	P/P	52 - 119
Prometon	102	99.5	P/P	69 - 124
Prometryn	107	99.7	P/P	66 - 124
Simazine	106	91.6	P/P	61 - 134
Terbufos	98.6	86.1	P/P	58 - 115
Terbuthylazine	99.0	93.1	P/P	77 - 113

Reference Method: EPA 8270D
 Batch ID: P331793

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.8	47.1	P/P	26 - 88.0
Alpha-BHC	75.4	70.9	P/P	63 - 114
Alpha-Chlordane	72.9	67.9	P/P	56 - 117
Beta-BHC	85.1	85.4	P/P	57 - 138
Carbophenothion	82.0	84.9	P/P	36 - 148
Chlorothalonil	64.0	54.8	P/P	26 - 173
Cypermethrin	75.3	70.7	P/P	42 - 159
DDD-p,p'	79.6	82.9	P/P	62 - 126
DDE-p,p'	76.4	71.2	P/P	53 - 115
DDT-p,p'	79.7	84.8	P/P	54 - 117
Delta-BHC	82.2	84.5	P/P	68 - 158
Dicofol	81.6	91.9	P/P	25 - 114

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P331793

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	78.1	73.9	P/P	59 - 126
Endosulfan I	75.9	67.6	P/P	62 - 138
Endosulfan II	92.3	78.2	P/P	61 - 150
Endosulfan Sulfate	78.5	83.8	P/P	63 - 132
Endrin	66.4	74.1	P/P	49 - 148
Endrin Aldehyde	74.7	72.9	P/P	50 - 144
Endrin Ketone	90.2	88.4	P/P	66 - 122
Gamma-BHC	88.3	82.4	P/P	60 - 137
Gamma-Chlordane	72.0	67.1	P/P	54 - 113
Heptachlor	68.6	60.5	P/P	43 - 104
Heptachlor Epoxide	75.8	70.5	P/P	64 - 118
Methoxychlor	79.4	80.9	P/P	63 - 129
Mirex	68.2	65.0	P/P	39 - 93.0
Permethrin	76.6	74.3	P/P	51 - 123
Trifluralin	104	91.6	P/P	35 - 187

Reference Method: EPA 8276
Batch ID: P331793

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110	110	P/P	48 - 121
Toxaphene	120	128	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P331647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	79.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P331679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P331787

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	75.7		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P331803

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

Reference Method: SM 2320 B-97
Batch ID: P331872

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P331805

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

Reference Method: SM 4500 F-C-97
 Batch ID: P331873

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.2		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P331963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P332046

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P331678

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	57.1		P	40 - 150
Acetaminophen	127		P	30 - 150
Bentazon	40.3		P	40 - 150
Carbamazepine	130		P	40 - 150
Diuron	111		P	40 - 150
Fenuron	108		P	40 - 150
Fluridone	106		P	40 - 150
Imidacloprid	97.2		P	40 - 160
Linuron	100		P	40 - 150
MCPD	59.4		P	40 - 150
Primidone	115		P	40 - 150
Triclopyr	58.2		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P331648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929024	Calcium	105		P	80 - 120
1929024	Iron	104	104	P/P	80 - 120
1929024	Magnesium	105	104	P/P	80 - 120
1929024	Potassium	99.8	98.9	P/P	80 - 120
1929024	Sodium	106		P	80 - 120
1929024	Zinc	99.5	98.1	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P331648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929024	Arsenic	99.1	100	P/P	80 - 120
1929024	Cadmium	100	102	P/P	80 - 120
1929024	Chromium	99.5	101	P/P	80 - 120
1929024	Copper	91.6	92.5	P/P	80 - 120
1929024	Lead	99.2	99.8	P/P	80 - 120
1929024	Nickel	95.2	95.3	P/P	80 - 120
1929024	Silver	98.2	100	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928946	Sulfate	95.1		P	90 - 110
1928969	Sulfate	92.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928946	Chloride	94.2		P	90 - 110
1928969	Chloride	93.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928834	Ammonia-N	100	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928826	Ammonia-N	105	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331799

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929094	Kjeldahl Nitrogen	95.6	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928879	Kjeldahl Nitrogen	100	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928240	NO2NO3-N	108	108	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928654	Total-P	93.9	91.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928833	Total-P	92.3	92.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928834	Total-P	92.8	91.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928838	O-Phosphate-P	95.6	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928839	O-Phosphate-P	92.9	95.7	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P331660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928855	Acetochlor	110	107	P/P	74 - 123
1928855	Alachlor	112	103	P/P	73 - 124
1928855	Ametryn	116	104	P/P	56 - 149
1928855	Atrazine	95.2	102	P/P	73 - 124
1928855	Atrazine Desethyl	58.5	75.0	P/P	12 - 103
1928855	Azinphos Methyl	119	131	P/P	60 - 202
1928855	Bromacil	107	87.2	P/P	42 - 133
1928855	Butylate	79.1	74.9	P/P	10 - 85.0
1928855	Chlorpyrifos Ethyl	92.8	95.7	P/P	53 - 113
1928855	Chlorpyrifos Methyl	86.5	98.4	P/P	40 - 115
1928855	Cyanazine	87.4	158	P/P	22 - 210
1928855	Demeton	86.6	96.7	P/P	17 - 149
1928855	Diazinon	115	120	P/P	72 - 124
1928855	Disulfoton	93.1	105	P/P	43 - 139
1928855	EPTC	77.8	65.7	P/P	10 - 86.0
1928855	Ethion	95.3	94.3	P/P	65 - 131
1928855	Ethoprop	86.1	90.4	P/P	59 - 110
1928855	Fenamiphos	91.9	98.6	P/P	57 - 138
1928855	Fipronil	120	109	P/P	40 - 130
1928855	Fipronil Sulfide	96.9	90.8	P/P	36 - 128
1928855	Fipronil Sulfone	94.2	83.7	P/P	16 - 145
1928855	Fonofos	84.7	99.0	P/P	60 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P331660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928855	Hexazinone	94.1	90.2	P/P	69 - 142
1928855	Malathion	87.7	90.1	P/P	68 - 132
1928855	Metalaxyl	101	101	P/P	66 - 118
1928855	Metolachlor	119	103	P/P	71 - 124
1928855	Metribuzin	75.6	134	P/P	61 - 140
1928855	Mevinphos	86.6	87.0	P/P	38 - 130
1928855	Molinate	72.6	72.0	P/P	23 - 99.0
1928855	Norflurazon	111	96.4	P/P	39 - 139
1928855	Parathion Ethyl	93.1	86.2	P/P	75 - 111
1928855	Parathion Methyl	102	111	P/P	64 - 130
1928855	Pendimethalin	92.2	96.0	P/P	26 - 173
1928855	Phorate	76.3	98.0	P/P	43 - 127
1928855	Prometon	120	97.3	P/P	50 - 144
1928855	Prometryn	119	108	P/P	69 - 126
1928855	Simazine	92.8	97.8	P/P	51 - 152
1928855	Terbufos	86.1	99.1	P/P	54 - 125
1928855	Terbuthylazine	95.8	95.8	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P331793

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929021	Aldrin	67.1	71.9	P/P	22 - 97.0
1929021	Alpha-BHC	85.0	71.2	P/P	43 - 132
1929021	Alpha-Chlordane	62.2	69.3	P/P	36 - 126
1929021	Beta-BHC	77.6	41.5	P/P	41 - 150
1929021	Carbophenothion	44.7	0.0	P/F	13 - 196
1929021	Chlorothalonil	89.8	48.5	P/P	10 - 266
1929021	Cypermethrin	70.0	56.4	P/P	37 - 161
1929021	DDD-p,p'	60.0	53.2	P/P	44 - 131
1929021	DDE-p,p'	61.0	68.3	P/P	32 - 127
1929021	DDT-p,p'	77.7	68.7	P/P	45 - 116
1929021	Delta-BHC	94.9	44.5	P/F	50 - 201
1929021	Dicofol	33.0	26.7	P/P	10 - 100
1929021	Dieldrin	95.8	86.8	P/P	39 - 142
1929021	Endosulfan I	79.5	73.3	P/P	51 - 139
1929021	Endosulfan II	66.1	68.4	P/P	49 - 155
1929021	Endosulfan Sulfate	73.4	71.4	P/P	54 - 136
1929021	Endrin	65.8	75.1	P/P	38 - 141
1929021	Endrin Aldehyde	80.1	69.9	P/P	14 - 152
1929021	Endrin Ketone	78.8	72.8	P/P	60 - 128
1929021	Gamma-BHC	93.9	69.7	P/P	48 - 157
1929021	Gamma-Chlordane	59.3	63.8	P/P	35 - 123
1929021	Heptachlor	67.1	82.7	P/P	25 - 112
1929021	Heptachlor Epoxide	73.6	79.0	P/P	48 - 125
1929021	Methoxychlor	85.9	73.2	P/P	52 - 127
1929021	Mirex	63.7	61.5	P/P	25 - 108
1929021	Permethrin	71.5	60.4	P/P	46 - 133
1929021	Trifluralin	118	106	P/P	29 - 254

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P331793

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928854	Chlordane	117	121	P/P	44 - 134
1928854	Toxaphene	142	133	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P331647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928853	Glyphosate	78.3	77.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P331679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929018	Sucralose	66.4	66.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P331787

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929019	Pyraclostrobin	74.7	70.0	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P331805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928913	Fluoride	93.6	95.9	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P331873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929132	Fluoride	96.8	97.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P331963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928616	Organic Carbon	101	98.0	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P332046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928836	Organic Carbon	94.3	94.5	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P331678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929018	2,4-D	50.9	49.1	P/P	40 - 150
1929018	Acetaminophen	80.8	84.6	P/P	30 - 150
1929018	Bentazon	20.5	22.0	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P331678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929018	Carbamazepine	128	131	P/P	40 - 150
1929018	Diuron	99.5	99.0	P/P	40 - 150
1929018	Fenuron	109	105	P/P	40 - 150
1929018	Fluridone	78.9	111	P/P	40 - 150
1929018	Linuron	94.5	94.8	P/P	40 - 150
1929018	MCP	50.2	50.3	P/P	40 - 150
1929018	Primidone	93.5	97.6	P/P	40 - 150
1929018	Triclopyr	43.4	48.6	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331611

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928843	Turbidity	0.224	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928825	Turbidity	1.56	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P331648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929024	Calcium	1.24	Spike	P	0 - 20
1929024	Iron	0.385	Spike	P	0 - 20
1929024	Magnesium	1.18	Spike	P	0 - 20
1929024	Potassium	0.823	Spike	P	0 - 20
1929024	Sodium	0.571	Spike	P	0 - 20
1929024	Zinc	1.51	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P331648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929024	Arsenic	0.867	Spike	P	0 - 20
1929024	Cadmium	1.48	Spike	P	0 - 20
1929024	Chromium	0.969	Spike	P	0 - 20
1929024	Copper	0.931	Spike	P	0 - 20
1929024	Lead	0.516	Spike	P	0 - 20
1929024	Nickel	0.140	Spike	P	0 - 20
1929024	Silver	2.22	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928946	Sulfate	0.249	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928946	Chloride	0.0716	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928834	Ammonia-N	0.636	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928826	Ammonia-N	0.959	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929094	Kjeldahl Nitrogen	2.63	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928879	Kjeldahl Nitrogen	2.31	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928240	NO2NO3-N	0.462	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928833	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928654	Total-P	2.75	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928833	Total-P	0.0260	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928834	Total-P	1.68	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928838	O-Phosphate-P	0.678	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928839	O-Phosphate-P	2.97	Spike	P	0 - 20

Reference Method: EPA 8270D
 Batch ID: P331660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928855	Acetochlor	2.64	Spike	P	0 - 30
1928855	Alachlor	7.14	Spike	P	0 - 30
1928855	Ametryn	11.2	Spike	P	0 - 30
1928855	Atrazine	6.34	Spike	P	0 - 30
1928855	Atrazine Desethyl	24.7	Spike	P	0 - 30
1928855	Azinphos Methyl	9.51	Spike	P	0 - 30
1928855	Bromacil	17.4	Spike	P	0 - 30
1928855	Butylate	5.48	Spike	P	0 - 30
1928855	Chlorpyrifos Ethyl	3.16	Spike	P	0 - 30
1928855	Chlorpyrifos Methyl	12.9	Spike	P	0 - 30
1928855	Cyanazine	57.4	Spike	F	0 - 30
1928855	Demeton	11.0	Spike	P	0 - 30
1928855	Diazinon	3.76	Spike	P	0 - 30
1928855	Disulfoton	12.0	Spike	P	0 - 30
1928855	EPTC	16.9	Spike	P	0 - 30
1928855	Ethion	1.03	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P331660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928855	Ethoprop	4.88	Spike	P	0 - 30
1928855	Fenamiphos	7.05	Spike	P	0 - 30
1928855	Fipronil	9.28	Spike	P	0 - 30
1928855	Fipronil Sulfide	6.54	Spike	P	0 - 30
1928855	Fipronil Sulfone	11.8	Spike	P	0 - 30
1928855	Fonofos	15.5	Spike	P	0 - 30
1928855	Hexazinone	2.54	Spike	P	0 - 30
1928855	Malathion	2.77	Spike	P	0 - 30
1928855	Metalaxyl	0.0909	Spike	P	0 - 30
1928855	Metolachlor	8.11	Spike	P	0 - 30
1928855	Metribuzin	55.6	Spike	F	0 - 30
1928855	Mevinphos	0.475	Spike	P	0 - 30
1928855	Molinate	0.830	Spike	P	0 - 30
1928855	Norflurazon	13.1	Spike	P	0 - 30
1928855	Parathion Ethyl	7.64	Spike	P	0 - 30
1928855	Parathion Methyl	7.87	Spike	P	0 - 30
1928855	Pendimethalin	4.05	Spike	P	0 - 30
1928855	Phorate	24.9	Spike	P	0 - 30
1928855	Prometon	20.8	Spike	P	0 - 30
1928855	Prometryn	9.65	Spike	P	0 - 30
1928855	Simazine	5.22	Spike	P	0 - 30
1928855	Terbufos	14.0	Spike	P	0 - 30
1928855	Terbutylazine	0.0385	Spike	P	0 - 30
LFB	Acetochlor	12.7	LCS	P	0 - 30
LFB	Alachlor	10.2	LCS	P	0 - 30
LFB	Ametryn	2.36	LCS	P	0 - 30
LFB	Atrazine	12.7	LCS	P	0 - 30
LFB	Atrazine Desethyl	41.5	LCS	F	0 - 30
LFB	Azinphos Methyl	22.2	LCS	P	0 - 30
LFB	Bromacil	11.9	LCS	P	0 - 30
LFB	Butylate	6.00	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	0.793	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.8	LCS	P	0 - 30
LFB	Cyanazine	60.5	LCS	F	0 - 30
LFB	Demeton	6.31	LCS	P	0 - 30
LFB	Diazinon	14.4	LCS	P	0 - 30
LFB	Disulfoton	7.46	LCS	P	0 - 30
LFB	EPTC	4.86	LCS	P	0 - 30
LFB	Ethion	4.47	LCS	P	0 - 30
LFB	Ethoprop	9.16	LCS	P	0 - 30
LFB	Fenamiphos	5.32	LCS	P	0 - 30
LFB	Fipronil	9.46	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.84	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.0932	LCS	P	0 - 30
LFB	Fonofos	17.2	LCS	P	0 - 30
LFB	Hexazinone	8.49	LCS	P	0 - 30
LFB	Malathion	0.547	LCS	P	0 - 30
LFB	Metalaxyl	24.5	LCS	P	0 - 30
LFB	Metolachlor	2.35	LCS	P	0 - 30
LFB	Metribuzin	64.8	LCS	F	0 - 30
LFB	Mevinphos	4.39	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P331660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Molinate	3.50	LCS	P	0 - 30
LFB	Norflurazon	8.34	LCS	P	0 - 30
LFB	Parathion Ethyl	7.59	LCS	P	0 - 30
LFB	Parathion Methyl	12.1	LCS	P	0 - 30
LFB	Pendimethalin	8.29	LCS	P	0 - 30
LFB	Phorate	17.0	LCS	P	0 - 30
LFB	Prometon	2.95	LCS	P	0 - 30
LFB	Prometryn	7.48	LCS	P	0 - 30
LFB	Simazine	14.5	LCS	P	0 - 30
LFB	Terbufos	13.5	LCS	P	0 - 30
LFB	Terbuthylazine	6.13	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P331793

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929021	Aldrin	6.87	Spike	P	0 - 30
1929021	Alpha-BHC	17.7	Spike	P	0 - 30
1929021	Alpha-Chlordane	10.8	Spike	P	0 - 30
1929021	Beta-BHC	60.5	Spike	F	0 - 30
1929021	Carbophenothion	200	Spike	F	0 - 30
1929021	Chlorothalonil	59.6	Spike	F	0 - 30
1929021	Cypermethrin	21.5	Spike	P	0 - 30
1929021	DDD-p,p'	12.0	Spike	P	0 - 30
1929021	DDE-p,p'	11.3	Spike	P	0 - 30
1929021	DDT-p,p'	12.2	Spike	P	0 - 30
1929021	Delta-BHC	72.4	Spike	F	0 - 30
1929021	Dicofol	20.9	Spike	P	0 - 30
1929021	Dieldrin	9.95	Spike	P	0 - 30
1929021	Endosulfan I	8.18	Spike	P	0 - 30
1929021	Endosulfan II	3.45	Spike	P	0 - 30
1929021	Endosulfan Sulfate	2.85	Spike	P	0 - 30
1929021	Endrin	13.1	Spike	P	0 - 30
1929021	Endrin Aldehyde	13.6	Spike	P	0 - 30
1929021	Endrin Ketone	7.96	Spike	P	0 - 30
1929021	Gamma-BHC	29.6	Spike	P	0 - 30
1929021	Gamma-Chlordane	7.29	Spike	P	0 - 30
1929021	Heptachlor	20.9	Spike	P	0 - 30
1929021	Heptachlor Epoxide	7.12	Spike	P	0 - 30
1929021	Methoxychlor	16.0	Spike	P	0 - 30
1929021	Mirex	3.44	Spike	P	0 - 30
1929021	Permethrin	16.8	Spike	P	0 - 30
1929021	Trifluralin	11.3	Spike	P	0 - 30
LFB	Aldrin	11.3	LCS	P	0 - 30
LFB	Alpha-BHC	6.14	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.99	LCS	P	0 - 30
LFB	Beta-BHC	0.340	LCS	P	0 - 30
LFB	Carbophenothion	3.44	LCS	P	0 - 30
LFB	Chlorothalonil	15.6	LCS	P	0 - 30
LFB	Cypermethrin	6.32	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P331793

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	DDD-p,p'	4.01	LCS	P	0 - 30
LFB	DDE-p,p'	7.01	LCS	P	0 - 30
LFB	DDT-p,p'	6.19	LCS	P	0 - 30
LFB	Delta-BHC	2.84	LCS	P	0 - 30
LFB	Dicofol	11.8	LCS	P	0 - 30
LFB	Dieldrin	5.43	LCS	P	0 - 30
LFB	Endosulfan I	11.6	LCS	P	0 - 30
LFB	Endosulfan II	16.5	LCS	P	0 - 30
LFB	Endosulfan Sulfate	6.57	LCS	P	0 - 30
LFB	Endrin	11.0	LCS	P	0 - 30
LFB	Endrin Aldehyde	2.43	LCS	P	0 - 30
LFB	Endrin Ketone	1.94	LCS	P	0 - 30
LFB	Gamma-BHC	6.89	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.97	LCS	P	0 - 30
LFB	Heptachlor	12.5	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.28	LCS	P	0 - 30
LFB	Methoxychlor	1.82	LCS	P	0 - 30
LFB	Mirex	4.78	LCS	P	0 - 30
LFB	Permethrin	3.14	LCS	P	0 - 30
LFB	Trifluralin	12.3	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P331793

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928854	Chlordane	3.21	Spike	P	0 - 30
1928854	Toxaphene	6.79	Spike	P	0 - 30
LFB	Chlordane	0.164	LCS	P	0 - 30
LFB	Toxaphene	6.54	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P331647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928853	Glyphosate	0.538	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P331679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929018	Sucralose	0.192	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P331787

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929019	Pyraclostrobin	6.58	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P331601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928828	Color (true)	0.560	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P331803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928913	Total Alkalinity	0.126	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P331872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929132	Total Alkalinity	0.303	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P332118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928872	TDS	7.24	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P332119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929036	TDS	1.51	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P331805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928913	Fluoride	2.04	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P331873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929132	Fluoride	0.495	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P331963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928616	Organic Carbon	2.11	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P332046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928836	Organic Carbon	0.201	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P331678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929018	2,4-D	3.68	Spike	P	0 - 30
1929018	Acetaminophen	4.69	Spike	P	0 - 30
1929018	Bentazon	4.91	Spike	P	0 - 30
1929018	Carbamazepine	2.58	Spike	P	0 - 30
1929018	Diuron	0.301	Spike	P	0 - 30
1929018	Fenuron	3.35	Spike	P	0 - 30
1929018	Fluridone	34.1	Spike	F	0 - 30
1929018	Imidacloprid	2.73	Spike	P	0 - 30
1929018	Linuron	0.380	Spike	P	0 - 30
1929018	MCP	0.278	Spike	P	0 - 30
1929018	Primidone	4.21	Spike	P	0 - 30
1929018	Triclopyr	11.3	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: 1928853
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Carbamazepine-d10	125	P	30 - 160
EPA 8321B	Carbamazepine-d10	125	P	30 - 160
EPA 8321B	Diuron-d6	93.8	P	30 - 160
EPA 8321B	Diuron-d6	104	P	30 - 160
EPA 8321B	Diuron-d6	93.8	P	30 - 160
EPA 8321B	Diuron-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.8	P	40 - 160
EPA 8321B	Primidone-d5	116	P	30 - 160
EPA 8321B	Primidone-d5	116	P	30 - 160
EPA 8321B	Sucralose-d6	95.0	P	40 - 160
EPA 8321B	Sucralose-d6	95.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	73.9	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	127	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	125	P	30 - 160
USGS O-2060-01	Diuron-d6	93.8	P	30 - 160
USGS O-2060-01	Diuron-d6	104	P	30 - 160
USGS O-2060-01	Primidone-d5	116	P	30 - 160
USGS O-2060-01	Sucralose-d6	95.0	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1928854
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	77.3	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	45.1	P	32 - 103
EPA 8276	Decachlorobiphenyl	71.9	P	31 - 100

Lab Sample ID: 1928855
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	74.3	P	53 - 135
EPA 8270D	Simazine-d10	95.7	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A78897
Included Lab Sample IDs: 1928825, 1928828, 1928829, 1928830, 1928831, 1928832

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A78899
Included Lab Sample IDs: 1928827, 1928838, 1928839, 1928840, 1928841, 1928842, 1928845

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A78903
Included Lab Sample IDs: 1928843

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A78904
Included Lab Sample IDs: 1928825, 1928828, 1928829, 1928830, 1928831, 1928832

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A78929
Included Lab Sample IDs: 1928834

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A78936
Included Lab Sample IDs: 1928853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	72.8	74.5	P/P	70 - 160

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A78956
Included Lab Sample IDs: 1928856

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	105	102	P/P	95 - 105
Iron	103	102	P/P	95 - 105
Magnesium	104	103	P/P	95 - 105
Potassium	102	100	P/P	95 - 105
Sodium	104	104	P/P	95 - 105
Zinc	103	104	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A78979
Included Lab Sample IDs: 1928826, 1928833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	101	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A78985
Included Lab Sample IDs: 1928825, 1928828, 1928830, 1928831, 1928832, 1928843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.4	P/P	90 - 110
Total Alkalinity	98.4	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A78985
Included Lab Sample IDs: 1928825, 1928828, 1928830, 1928831, 1928832, 1928843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	97.5	P/P	90 - 110
Fluoride	98.5	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A78987
Included Lab Sample IDs: 1928825, 1928828, 1928829, 1928830, 1928831, 1928832

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	99.4	P/P	90 - 110
Chloride	101	101	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A78997

Included Lab Sample IDs: 1928826, 1928833, 1928835, 1928836, 1928837, 1928844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79021

Included Lab Sample IDs: 1928856

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	98.9	P/P	90 - 110
Cadmium	104	104	P/P	90 - 110
Chromium	104	103	P/P	90 - 110
Copper	99.7	97.5	P/P	90 - 110
Lead	101	99.4	P/P	90 - 110
Nickel	99.8	96.8	P/P	90 - 110
Silver	99.3	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79024

Included Lab Sample IDs: 1928853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	80.4	100	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A79025

Included Lab Sample IDs: 1928829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A79025

Included Lab Sample IDs: 1928829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.5	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79033

Included Lab Sample IDs: 1928834

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79036

Included Lab Sample IDs: 1928835, 1928836, 1928837, 1928844

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79044

Included Lab Sample IDs: 1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	101	P/P	90 - 110
Ammonia-N	105	105	P/P	90 - 110
Ammonia-N	106	105	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A79049

Included Lab Sample IDs: 1928826, 1928833, 1928834, 1928835

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79057

Included Lab Sample IDs: 1928834

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79058

Included Lab Sample IDs: 1928826, 1928833, 1928835, 1928836, 1928837, 1928844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.7	97.2	P/P	90 - 110
Kjeldahl Nitrogen	96.1	95.7	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A79077

Included Lab Sample IDs: 1928836, 1928837, 1928844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.6	93.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79086

Included Lab Sample IDs: 1928853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	128	140	P/P	60 - 150

Reference Method: EPA 8270D

Run ID: A79134

Included Lab Sample IDs: 1928855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	104		P	80 - 120
Atrazine	107		P	80 - 120
Atrazine Desethyl	93.2		P	80 - 120
Azinphos Methyl	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
 Run ID: A79134
 Included Lab Sample IDs: 1928855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	93.2		P	80 - 120
Butylate	110		P	80 - 120
Chlorpyrifos Ethyl	96.0		P	80 - 120
Chlorpyrifos Methyl	91.8		P	80 - 120
Cyanazine	88.9		P	80 - 120
Demeton	96.6		P	80 - 120
Diazinon	106		P	80 - 120
Disulfoton	98.1		P	80 - 120
EPTC	108		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	94.8		P	80 - 120
Fenamiphos	90.4		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Sulfide	97.0		P	80 - 120
Fipronil Sulfone	96.3		P	80 - 120
Fonofos	95.4		P	80 - 120
Hexazinone	95.9		P	80 - 120
Malathion	88.2		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	84.1		P	80 - 120
Mevinphos	93.0		P	80 - 120
Molinate	115		P	80 - 120
Norflurazon	104		P	80 - 120
Parathion Ethyl	98.0		P	80 - 120
Parathion Methyl	98.3		P	80 - 120
Pendimethalin	96.4		P	80 - 120
Phorate	95.3		P	80 - 120
Prometon	108		P	80 - 120
Prometryn	102		P	80 - 120
Simazine	106		P	80 - 120
Terbufos	94.8		P	80 - 120
Terbutylazine	104		P	80 - 120

Reference Method: EPA 8276
 Run ID: A79158
 Included Lab Sample IDs: 1928854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	103		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 8270D
 Run ID: A79160
 Included Lab Sample IDs: 1928854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.6		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	94.5		P	80 - 120
Beta-BHC	99.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A79160

Included Lab Sample IDs: 1928854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	102		P	80 - 120
Chlorothalonil	95.2		P	80 - 120
Cypermethrin	95.5		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	99.1		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	97.5		P	80 - 120
Dicofol	116		P	80 - 120
Dieldrin	97.1		P	80 - 120
Endosulfan I	94.3		P	80 - 120
Endosulfan II	95.4		P	80 - 120
Endosulfan Sulfate	103		P	80 - 120
Endrin	95.7		P	80 - 120
Endrin Aldehyde	93.4		P	80 - 120
Endrin Ketone	103		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	93.8		P	80 - 120
Heptachlor	96.2		P	80 - 120
Heptachlor Epoxide	98.3		P	80 - 120
Methoxychlor	88.5		P	80 - 120
Mirex	95.7		P	80 - 120
Permethrin	95.6		P	80 - 120
Trifluralin	95.3		P	80 - 120

Reference Method: USGS O-2060-01

Run ID: A79179

Included Lab Sample IDs: 1928853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	120	107	P/P	50 - 150
Acetaminophen	101	100	P/P	60 - 150
Bentazon	128	143	P/P	50 - 150
Carbamazepine	112	111	P/P	60 - 150
Diuron	103	103	P/P	60 - 150
Fenuron	103	97.8	P/P	60 - 150
Fluridone	116	116	P/P	60 - 160
Imidacloprid	99.9	95.6	P/P	60 - 150
Linuron	107	102	P/P	60 - 150
MCP	97.1	110	P/P	50 - 150
Primidone	103	97.4	P/P	60 - 150
Triclopyr	109	116	P/P	50 - 150

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.224	
	Turbidity						1.56	
EPA 200.7 Rev. 4.4	Calcium	106		105				1.24
	Iron	106		104	104			0.385
	Magnesium	108		105	104			1.18
	Potassium	102		99.8	98.9			0.823
	Sodium	107		106				0.571
	Zinc	103		99.5	98.1			1.51
EPA 200.8 Rev. 5.4	Arsenic	98.9		99.1	100			0.867
	Cadmium	102		100	102			1.48
	Chromium	99.6		99.5	101			0.969
	Copper	93.0		91.6	92.5			0.931
	Lead	98.2		99.2	99.8			0.516
	Nickel	94.8		95.2	95.3			0.140
	Silver	99.2		98.2	100			2.22
EPA 300.0 Rev. 2.1	Chloride	98.7		94.2	93.0		0.0716	
	Sulfate	97.8		95.1	92.7		0.249	
EPA 350.1 Rev. 2.0	Ammonia-N	106		100	99.2			0.636
	Ammonia-N	108		105	104			0.959
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110		95.6	98.8			2.63
	Kjeldahl Nitrogen	101		100	103			2.31
EPA 353.2 Rev. 2.0	NO2NO3-N	107		108	108			0.462
	NO2NO3-N	100						0.0
EPA 365.1 Rev. 2.0	Total-P	91.8		93.9	91.3			2.75
	Total-P	94.3		92.3	92.4			0.0260
	Total-P	98.0		92.8	91.2			1.68
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.8		95.6	96.3			0.678
	O-Phosphate-P	97.5		92.9	95.7			2.97
EPA 8270D	Acetochlor	111	98.1	107	110	12.7		2.64
	Alachlor	108	97.3	103	112	10.2		7.14
	Aldrin	47.1	52.8	67.1	71.9	11.3		6.87
	Alpha-BHC	70.9	75.4	85.0	71.2	6.14		17.7
	Alpha-Chlordane	72.9	67.9	62.2	69.3	6.99		10.8
	Ametryn	103	101	104	116	2.36		11.2
	Atrazine	107	93.8	102	95.2	12.7		6.34
	Atrazine Desethyl	85.4	56.1	58.5	75.0	41.5		24.7
	Azinphos Methyl	139	111	119	131	22.2		9.51
	Beta-BHC	85.1	85.4	77.6	41.5	0.340		60.5
	Bromacil	102	90.3	107	87.2	11.9		17.4
	Butylate	73.3	77.9	79.1	74.9	6.00		5.48
	Carbophenothion	82.0	84.9	0.0	44.7	3.44		200
	Chlorothalonil	64.0	54.8	48.5	89.8	15.6		59.6
	Chlorpyrifos Ethyl	95.7	95.0	92.8	95.7	0.793		3.16
	Chlorpyrifos Methyl	102	88.2	86.5	98.4	14.8		12.9
	Cyanazine	165	88.5	87.4	158	60.5		57.4
	Cypermethrin	75.3	70.7	56.4	70.0	6.32		21.5
	DDD-p,p'	79.6	82.9	53.2	60.0	4.01		12.0
	DDE-p,p'	71.2	76.4	61.0	68.3	7.01		11.3
	DDT-p,p'	84.8	79.7	77.7	68.7	6.19		12.2
	Delta-BHC	82.2	84.5	94.9	44.5	2.84		72.4
	Demeton	97.2	91.2	96.7	86.6	6.31		11.0
	Diazinon	114	99.0	120	115	14.4		3.76
	Dicofol	81.6	91.9	33.0	26.7	11.8		20.9
	Dieldrin	73.9	78.1	95.8	86.8	5.43		9.95

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Disulfoton	103	95.8	105	93.1	7.46	12.0
	Endosulfan I	67.6	75.9	79.5	73.3	11.6	8.18
	Endosulfan II	78.2	92.3	66.1	68.4	16.5	3.45
	Endosulfan Sulfate	83.8	78.5	73.4	71.4	6.57	2.85
	Endrin	74.1	66.4	65.8	75.1	11.0	13.1
	Endrin Aldehyde	72.9	74.7	80.1	69.9	2.43	13.6
	Endrin Ketone	90.2	88.4	78.8	72.8	1.94	7.96
	EPTC	68.9	72.4	65.7	77.8	4.86	16.9
	Ethion	92.8	97.0	94.3	95.3	4.47	1.03
	Ethoprop	91.6	83.6	90.4	86.1	9.16	4.88
	Fenamiphos	97.3	92.2	98.6	91.9	5.32	7.05
	Fipronil	114	103	109	120	9.46	9.28
	Fipronil Sulfide	94.9	90.4	90.8	96.9	4.84	6.54
	Fipronil Sulfone	88.6	88.5	83.7	94.2	0.0932	11.8
	Fonofos	94.6	79.6	84.7	99.0	17.2	15.5
	Gamma-BHC	88.3	82.4	93.9	69.7	6.89	29.6
	Gamma-Chlordane	72.0	67.1	59.3	63.8	6.97	7.29
	Heptachlor	60.5	68.6	67.1	82.7	12.5	20.9
	Heptachlor Epoxide	70.5	75.8	73.6	79.0	7.28	7.12
	Hexazinone	91.8	84.3	90.2	94.1	8.49	2.54
	Malathion	92.5	93.1	90.1	87.7	0.547	2.77
	Metalaxyl	105	82.3	101	101	24.5	0.0909
	Methoxychlor	80.9	79.4	85.9	73.2	1.82	16.0
	Metolachlor	98.4	96.1	119	103	2.35	8.11
	Metribuzin	114	58.2	134	75.6	64.8	55.6
	Mevinphos	89.8	85.9	87.0	86.6	4.39	0.475
	Mirex	65.0	68.2	63.7	61.5	4.78	3.44
	Molinate	78.4	81.2	72.0	72.6	3.50	0.830
	Norflurazon	100	92.0	96.4	111	8.34	13.1
	Parathion Ethyl	93.5	86.7	93.1	86.2	7.59	7.64
	Parathion Methyl	114	101	102	111	12.1	7.87
	Pendimethalin	95.5	87.9	96.0	92.2	8.29	4.05
	Permethrin	74.3	76.6	71.5	60.4	3.14	16.8
	Phorate	92.9	78.3	98.0	76.3	17.0	24.9
	Prometon	102	99.5	97.3	120	2.95	20.8
	Prometryn	107	99.7	108	119	7.48	9.65
	Simazine	106	91.6	97.8	92.8	14.5	5.22
	Terbufos	98.6	86.1	99.1	86.1	13.5	14.0
	Terbuthylazine	99.0	93.1	95.8	95.8	6.13	0.0385
	Trifluralin	91.6	104	118	106	12.3	11.3
EPA 8276	Chlordane	110	110	117	121	0.164	3.21
	Toxaphene	120	128	142	133	6.54	6.79
EPA 8321B	Glyphosate	79.9		78.3	77.8		0.538
	Pyraclostrobin	75.7		74.7	70.0		6.58
	Sucralose	101		66.4	66.7		0.192
SM 2120 B	Color (true)					0.560	
SM 2320 B-97	Total Alkalinity	101				0.126	
	Total Alkalinity	101				0.303	
SM 2540 C-97	TDS					7.24	
	TDS					1.51	
SM 4500 F-C-97	Fluoride	95.9		93.6	95.9		2.04
	Fluoride	95.2		96.8	97.4		0.495
SM 5310 B-00	Organic Carbon	97.0		101	98.0		2.11
	Organic Carbon	94.8		94.3	94.5		0.201

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
USGS O-2060-01	2,4-D	57.1	50.9	49.1		3.68
	Acetaminophen	127	80.8	84.6		4.69
	Bentazon	40.3	20.5	22.0		4.91
	Carbamazepine	130	128	131		2.58
	Diuron	111	99.5	99.0		0.301
	Fenuron	108	109	105		3.35
	Fluridone	106	78.9	111		34.1
	Imidacloprid	97.2				2.73
	Linuron	100	94.5	94.8		0.380
	MCP	59.4	50.2	50.3		0.278
	Primidone	115	93.5	97.6		4.21
	Triclopyr	58.2	43.4	48.6		11.3

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1928825, 1928828, 1928829, 1928830, 1928831, 1928832, 1928843
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1928856
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1928856
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1928825, 1928828, 1928829, 1928830, 1928831, 1928832
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1928825, 1928828, 1928829, 1928830, 1928831, 1928832
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1928827, 1928838, 1928839, 1928840, 1928841, 1928842, 1928845
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1928854
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1928855
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1928854
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1928853
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1928853
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1928853
SM 2120 B / E31780	True Color measured at 450 nm	1928825, 1928828, 1928829, 1928830, 1928831, 1928832
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1928825, 1928828, 1928829, 1928830, 1928831, 1928832, 1928843
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1928825, 1928828, 1928829, 1928830, 1928831, 1928832
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1928825, 1928828, 1928829, 1928830, 1928831, 1928832, 1928843
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1928825, 1928828, 1928829, 1928830, 1928831, 1928832, 1928843
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1928853

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1928853

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	09/13/2017			09/13/2017 18:56	DeAsia Armster	1928843
	09/13/2017			09/14/2017 10:34	DeAsia Armster	1928825, 1928828, 1928829, 1928830, 1928831, 1928832
EPA 200.7 Rev. 4.4	09/13/2017	09/14/2017	Elliott D. Healy	09/15/2017	Betina Topolski	1928856
EPA 200.8 Rev. 5.4	09/13/2017	09/14/2017	Elliott D. Healy	09/19/2017	Nadine Brooks	1928856
EPA 300.0 Rev. 2.1	09/13/2017			09/18/2017	Julia Storbeck	1928825, 1928828, 1928829, 1928830, 1928831, 1928832
EPA 350.1 Rev. 2.0	09/13/2017			09/20/2017	Sofia Elnemr	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
EPA 351.2 Rev. 2.0	09/13/2017	09/19/2017	Adrian Shelby	09/20/2017	Tanya Welborn	1928834
	09/13/2017	09/19/2017	Adrian Shelby	09/21/2017	Tanya Welborn	1928826, 1928833, 1928835, 1928836, 1928837, 1928844
EPA 353.2 Rev. 2.0	09/13/2017			09/15/2017	Beverly Y. Sanders	1928834
	09/13/2017			09/19/2017	Beverly Y. Sanders	1928826, 1928833, 1928835, 1928836, 1928837, 1928844
EPA 365.1 Rev. 2.0	09/13/2017	09/14/2017	Sima Feizi	09/18/2017	Lipi Saha	1928826, 1928833
	09/13/2017	09/14/2017	Sima Feizi	09/20/2017	Lipi Saha	1928835, 1928836, 1928837, 1928844
	09/13/2017	09/18/2017	Sima Feizi	09/19/2017	Lipi Saha	1928834
EPA 365.1 Rev. 2.0 dissolved	09/13/2017			09/13/2017 16:33	Megan Treadwell	1928838
	09/13/2017			09/13/2017 16:44	Megan Treadwell	1928839
	09/13/2017			09/13/2017 16:46	Megan Treadwell	1928827
	09/13/2017			09/13/2017 16:47	Megan Treadwell	1928840
	09/13/2017			09/13/2017 16:48	Megan Treadwell	1928841
	09/13/2017			09/13/2017 16:49	Megan Treadwell	1928842
	09/13/2017			09/13/2017 16:50	Megan Treadwell	1928845
EPA 8270D	09/13/2017	09/18/2017	Fe-Val Siddell	09/22/2017	Marek Topolski	1928855
	09/13/2017	09/18/2017	Rasheda Ghaffari	09/21/2017	Vandana T. Nagar	1928854
EPA 8276	09/13/2017	09/18/2017	Rasheda Ghaffari	09/22/2017	Vandana T. Nagar	1928854
EPA 8321B	09/13/2017	09/15/2017	Julie Michelle Frank	09/15/2017	Julie Michelle Frank	1928853
	09/13/2017	09/19/2017	Hoor Shaik	09/19/2017	Juyoung Kim	1928853
	09/13/2017	09/19/2017	Hoor Shaik	09/21/2017	Juyoung Kim	1928853
SM 2120 B	09/13/2017			09/13/2017 19:33	Julia Storbeck	1928825
	09/13/2017			09/13/2017 19:34	Julia Storbeck	1928829
	09/13/2017			09/13/2017 19:36	Julia Storbeck	1928831
	09/13/2017			09/13/2017 19:37	Julia Storbeck	1928828, 1928832
	09/13/2017			09/13/2017 19:38	Julia Storbeck	1928830
SM 2320 B-97	09/13/2017			09/18/2017	Dale L. Simmons	1928825, 1928828, 1928830, 1928831, 1928832, 1928843
	09/13/2017			09/19/2017	Dale L. Simmons	1928829
SM 2540 C-97	09/13/2017			09/18/2017	Yijie Li	1928825, 1928828, 1928829, 1928830, 1928831, 1928832

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-97	09/13/2017			09/18/2017	Yijie Li	1928825, 1928828, 1928829, 1928830, 1928831, 1928832, 1928843
SM 4500 F-C-97	09/13/2017			09/18/2017	Dale L. Simmons	1928825, 1928828, 1928830, 1928831, 1928832, 1928843
	09/13/2017			09/19/2017	Dale L. Simmons	1928829
SM 5310 B-00	09/13/2017			09/20/2017	Ping Hua	1928826, 1928833, 1928834, 1928835, 1928836, 1928837, 1928844
USGS O-2060-01	09/13/2017	09/19/2017	Hoor Shaik	09/27/2017	Julie Michelle Frank	1928853