

Chemical Analysis Report

NE-DIST-2016-09-28-01

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

Event Description: **Gville South**
Request ID: **RQ-2016-09-26-06**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 25-OCT-2016 11:24



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: 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: LOCHLOOSA SLOUGH AT US 301

Collection Date/Time: 09/27/2016 11:25

Field ID: G1NE0209 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835203	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P312077	
	EPA 300.0 Rev. 2.1	Chloride	9.0		mg Cl/L	P312301	
		Sulfate	0.76		mg SO4/L	P312303	
	SM 2120 B	Color (true)	570		PCU	P312032	
	SM 2320 B-97	Total Alkalinity	46		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	184		mg/L	P312417	
	SM 2540 D-97	TSS	2	I	mg/L	P312363	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P312277	
1835210	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P312502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P312499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P312961	
	SM 5310 B-00	Organic Carbon	58		mg C/L	P312199	
1835217	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: WEST HAWTHORNE FISH CAMP RD.

Collection Date/Time: 09/27/2016 10:15

Field ID: G1NE0210 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835204	EPA 180.1 Rev. 2.0	Turbidity	5.4		NTU	P312077	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P312301	
		Sulfate	8.2		mg SO4/L	P312303	
	SM 2120 B	Color (true)	620		PCU	P312032	
	SM 2320 B-97	Total Alkalinity	40		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	216	A	mg/L	P312418	
	SM 2540 D-97	TSS	8	I	mg/L	P312364	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P312277	
1835211	EPA 350.1 Rev. 2.0	Ammonia-N	0.33		mg N/L	P312502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P312499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.49		mg P/L	P312961	
	SM 5310 B-00	Organic Carbon	58		mg C/L	P312199	
1835218	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.28		mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LOCHLOOSA AT FISH CAMP RD.

Collection Date/Time: 09/27/2016 10:50

Field ID: G1NE0211 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G1NE0211 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835205	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P312077	
	EPA 300.0 Rev. 2.1	Chloride	9.2	A	mg Cl/L	P312301	
		Sulfate	0.95	A	mg SO4/L	P312303	
	SM 2120 B	Color (true)	680		PCU	P312032	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	156		mg/L	P312418	
	SM 2540 D-97	TSS	2	I	mg/L	P312364	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P312277	
1835212	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P312502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P312499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P312961	
	SM 5310 B-00	Organic Carbon	55		mg C/L	P312199	
1835219	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.092		mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: CROSS CREEK AT SR 325

Collection Date/Time: 09/27/2016 11:50

Field ID: G4NE0105 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835206	EPA 180.1 Rev. 2.0	Turbidity	5.6	A	NTU	P312078	
	EPA 300.0 Rev. 2.1	Chloride	9.5		mg Cl/L	P312301	
		Sulfate	2.5		mg SO4/L	P312834	
	SM 2120 B	Color (true)	58		PCU	P312033	
	SM 2320 B-97	Total Alkalinity	30		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	83		mg/L	P312418	
	SM 2540 D-97	TSS	9	I	mg/L	P312364	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P312277	
1835213	EPA 350.1 Rev. 2.0	Ammonia-N	0.069		mg N/L	P312502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P312499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P312961	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P312199	
1835220	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: RIVER STYX AT 346

Collection Date/Time: 09/27/2016 12:15

Field ID: G1NE0106 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835207	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P312078	

Field ID: G1NE0106 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835207	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P312301	
		Sulfate	1.4		mg SO4/L	P312303	
	SM 2120 B	Color (true)	280		PCU	P312033	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	121		mg/L	P312418	
	SM 2540 D-97	TSS	2	I	mg/L	P312364	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P312277	
1835214	EPA 350.1 Rev. 2.0	Ammonia-N	0.39		mg N/L	P312502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P312499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P312961	
	SM 5310 B-00	Organic Carbon	35		mg C/L	P312199	
1835221	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: RIVER STYX AT 346 DUPLICATE

Collection Date/Time: 09/27/2016 12:20

Field ID: G1NE0106 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835208	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P312078	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P312301	
		Sulfate	1.3		mg SO4/L	P312303	
	SM 2120 B	Color (true)	270		PCU	P312033	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	126		mg/L	P312418	
	SM 2540 D-97	TSS	3	I	mg/L	P312364	
1835215	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P312277	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.40		mg N/L	P312502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P312499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P313019	
1835222	SM 5310 B-00	Organic Carbon	35		mg C/L	P312199	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: PRAIRIE CREEK AT SR20

Collection Date/Time: 09/27/2016 12:50

Field ID: G1NE0095 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835209	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P312078	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P312301	

Field ID: G1NE0095 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835209	EPA 300.0 Rev. 2.1	Sulfate	2.9		mg SO4/L	P312303	
	SM 2120 B	Color (true)	67		PCU	P312033	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P312273	
	SM 2540 C-97	TDS	101		mg/L	P312418	
	SM 2540 D-97	TSS	27		mg/L	P312364	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P312277	
1835216	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P312619	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.5		mg N/L	P312603	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P312339	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P313019	
	SM 5310 B-00	Organic Carbon	24		mg C/L	P312199	
1835223	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P312067	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: LOCHLOOSA SLOUGH AT US 301

Collection Date/Time: 09/27/2016 11:25

Field ID: G1NE0209 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835238	EPA 8321B	Glyphosate**	10	U	ug/L	P312306	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P311958	
		Diuron	0.0040	UJ	ug/L	P311958	SUR
		2,4-DB	0.0020	U	ug/L	P311958	
		Fenuron	0.0080	UJ	ug/L	P311958	SUR
		2,4,5-T	0.0020	U	ug/L	P311958	
		Acifluorfen	0.0020	U	ug/L	P311958	MS, RPD
		Imidacloprid	0.0040	UJ	ug/L	P311958	MS, SUR
		Bentazon	0.0020	U	ug/L	P311958	MS
		Linuron	0.0040	UJ	ug/L	P311958	SUR
		Dichlorprop	0.0020	U	ug/L	P311958	
		Dinoseb	0.020	U	ug/L	P311958	RPD
		MCPA	0.0040	U	ug/L	P311958	
		Acetaminophen**	0.0040	U	ug/L	P311958	
		MCPP	0.0040	U	ug/L	P311958	
		Picloram	0.050	U	ug/L	P311958	
		Carbamazepine**	4.0E-04	U	ug/L	P311958	
		Silvex	0.0020	U	ug/L	P311958	
		Triclopyr**	0.0040	U	ug/L	P311958	
		Primidone**	0.0080	U	ug/L	P311958	
		Fluridone**	0.0023	J	ug/L	P311958	SUR
1835239	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P312305	
1835258	EPA 8270D	Dieldrin	0.40	U	ng/L	P312318	
1835259		Ametryn	0.31	U	ng/L	P311949	
		Atrazine	0.24	U	ng/L	P311949	

Field ID: G1NE0209 09272016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1835259	EPA 8270D	Chlorpyrifos Ethyl	0.24	U	ng/L	P311949	
		Chlorpyrifos Methyl	0.096	U	ng/L	P311949	
		Disulfoton	0.31	U	ng/L	P311949	
		Ethion	0.14	U	ng/L	P311949	
		Ethoprop	0.096	U	ng/L	P311949	
		Hexazinone	0.51	I	ng/L	P311949	
		Malathion	0.34	U	ng/L	P311949	
		Metribuzin	0.19	UJ	ng/L	P311949	LCS, MS, RPD
		Mevinphos	0.48	U	ng/L	P311949	
		Norflurazon	0.48	U	ng/L	P311949	
		Phorate	0.24	U	ng/L	P311949	
		Prometryn	0.19	U	ng/L	P311949	
		Simazine	0.48	U	ng/L	P311949	
		Atrazine Desethyl	1.4	U	ng/L	P311949	
		Prometon	0.86	U	ng/L	P311949	
		Fipronil	0.24	U	ng/L	P311949	
		Molinate	0.29	U	ng/L	P311949	
		Pendimethalin	1.4	U	ng/L	P311949	
		Terbufos	0.096	U	ng/L	P311949	
		EPTC	1.2	U	ng/L	P311949	
		Terbuthylazine	0.41	U	ng/L	P311949	
		Bromacil	0.48	U	ng/L	P311949	
		Fipronil Sulfide	0.14	U	ng/L	P311949	
		Fipronil Sulfone	0.14	U	ng/L	P311949	
		Alachlor	0.24	U	ng/L	P311949	
		Azinphos Methyl	2.2	U	ng/L	P311949	
		Butylate	0.38	U	ng/L	P311949	
		Demeton	0.96	U	ng/L	P311949	
		Diazinon	0.12	U	ng/L	P311949	
		Fenamiphos	0.24	U	ng/L	P311949	
		Fonofos	0.19	U	ng/L	P311949	
		Metalaxyl	0.19	U	ng/L	P311949	
		Metolachlor	0.24	U	ng/L	P311949	
		Acetochlor	0.24	U	ng/L	P311949	
		Cyanazine	0.48	UJ	ng/L	P311949	RPD
		Parathion Ethyl	0.24	U	ng/L	P311949	
		Parathion Methyl	0.24	U	ng/L	P311949	

Ref. Method and Comment:

USGS O-2060-01: Results confirmed in re-extraction.

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.

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

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P312077

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P312078

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312301

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312303

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312834

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312502

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312499

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312603

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312339

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312961

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P313019

Component	Result	Code	Units
Total-P	0.005	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P312067

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

Reference Method: EPA 8270D
Batch ID: P311949

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	1.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
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
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P311949

Component	Result	Code	Units
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P312318

Component	Result	Code	Units
Dieldrin	0.40	U	ng/L

Reference Method: EPA 8321B
Batch ID: P312305

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P312306

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: SM 2120 B
Batch ID: P312032

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P312033

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P312273

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

Reference Method: SM 2540 C-97
Batch ID: P312417

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P312417

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P312418

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P312363

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P312364

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P312277

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P312199

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

Reference Method: USGS O-2060-01
Batch ID: P311958

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0040	U	ug/L
2,4-DB	0.0020	U	ug/L
Acetaminophen	0.0040	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPA	0.0040	U	ug/L
MCPP	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P311958

Component	Result	Code	Units
Picloram	0.050	U	ug/L
Primidone	0.0080	U	ug/L
Silvex	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312301

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312303

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312834

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312502

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312499

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312603

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312339

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312961

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P313019

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: P312067

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

Reference Method: EPA 8270D
Batch ID: P311949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	94.5	94.2	P/P	80 - 119
Alachlor	96.2	94.4	P/P	80 - 120
Ametryn	114	89.9	P/P	60 - 135
Atrazine	102	103	P/P	72 - 121
Atrazine Desethyl	73.4	61.3	P/P	14 - 124
Azinphos Methyl	132	111	P/P	74 - 186
Bromacil	94.5	95.7	P/P	38 - 125
Butylate	50.3	59.5	P/P	34 - 88.0
Chlorpyrifos Ethyl	93.4	84.8	P/P	53 - 108
Chlorpyrifos Methyl	83.2	80.9	P/P	29 - 119
Cyanazine	155	99.7	P/P	30 - 240
Demeton	92.2	82.3	P/P	35 - 127
Diazinon	99.8	97.8	P/P	75 - 121
Disulfoton	92.6	97.7	P/P	40 - 141
EPTC	51.4	58.9	P/P	36 - 96.0
Ethion	110	111	P/P	64 - 127
Ethoprop	84.5	81.7	P/P	65 - 108
Fenamiphos	106	95.9	P/P	62 - 140
Fipronil	96.0	99.1	P/P	59 - 127
Fipronil Sulfide	94.0	96.7	P/P	55 - 126
Fipronil Sulfone	96.5	89.5	P/P	56 - 127
Fonofos	99.4	85.9	P/P	64 - 111
Hexazinone	111	112	P/P	43 - 153
Malathion	110	107	P/P	70 - 129
Metaxyl	97.2	96.5	P/P	49 - 135
Metolachlor	97.5	98.6	P/P	81 - 120
Metribuzin	164	91.8	F/P	66 - 133
Mevinphos	76.8	62.4	P/P	33 - 128

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P311949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	68.8	66.7	P/P	46 - 101
Norflurazon	102	98.2	P/P	62 - 131
Parathion Ethyl	100	95.1	P/P	80 - 109
Parathion Methyl	88.9	86.5	P/P	76 - 126
Pendimethalin	88.6	85.3	P/P	47 - 137
Phorate	97.7	82.1	P/P	51 - 115
Prometon	110	97.2	P/P	67 - 123
Prometryn	118	98.1	P/P	66 - 122
Simazine	109	108	P/P	60 - 134
Terbufos	95.9	89.5	P/P	56 - 116
Terbuthylazine	94.4	101	P/P	77 - 114

Reference Method: EPA 8270D
Batch ID: P312318

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	99.6	94.8	P/P	77 - 123

Reference Method: EPA 8321B
Batch ID: P312305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	96.0		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P312306

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	100		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P312273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P312277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P312199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.3		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P311958

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

Reference Method: USGS O-2060-01
Batch ID: P311958

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	78.8		P	40 - 140
2,4-D	86.4		P	40 - 140
2,4-DB	46.8		P	40 - 140
Acetaminophen	132		P	40 - 140
Acifluorfen	116		P	40 - 140
Bentazon	114		P	40 - 140
Carbamazepine	114		P	40 - 140
Dichlorprop	94.4		P	40 - 140
Dinoseb	84.8		P	40 - 140
Diuron	82.4		P	40 - 140
Fenuron	103		P	40 - 140
Fluridone	104		P	40 - 140
Imidacloprid	108		P	40 - 160
Linuron	89.6		P	40 - 140
MCPA	91.6		P	40 - 140
MCPP	95.2		P	40 - 140
Picloram	40.8		P	40 - 140
Primidone	105		P	40 - 140
Silvex	92.4		P	40 - 140
Triclopyr	64.0		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312301

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835205	Chloride	100		P	90 - 110
1835206	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312303

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835205	Sulfate	98.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312834

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1836244	Sulfate	93.5	93.3	P/P	90 - 110
1836245	Sulfate	94.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835213	Ammonia-N	103	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P312619

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834074	Ammonia-N	105	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P312339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834294	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P312961

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835006	Total-P	99.6	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P313019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835304	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P312067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835220	O-Phosphate-P	98.4	99.1	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P311949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834108	Acetochlor	99.4	97.8	P/P	77 - 125
1834108	Alachlor	97.0	98.3	P/P	75 - 127
1834108	Ametryn	110	116	P/P	53 - 150
1834108	Atrazine	105	108	P/P	70 - 126
1834108	Atrazine Desethyl	60.2	70.1	P/P	8.0 - 105
1834108	Azinphos Methyl	139	153	P/P	63 - 204
1834108	Bromacil	95.7	100	P/P	43 - 132
1834108	Butylate	40.9	43.3	P/P	7.0 - 87.0
1834108	Chlorpyrifos Ethyl	80.2	97.3	P/P	53 - 111
1834108	Chlorpyrifos Methyl	78.6	86.0	P/P	38 - 117
1834108	Cyanazine	146	201	P/P	18 - 222
1834108	Demeton	80.3	93.7	P/P	10 - 157
1834108	Diazinon	105	101	P/P	73 - 127
1834108	Disulfoton	105	96.5	P/P	43 - 141
1834108	EPTC	36.9	36.9	P/P	11 - 86.0
1834108	Ethion	118	122	P/P	68 - 130
1834108	Ethoprop	90.1	92.7	P/P	60 - 108
1834108	Fenamiphos	103	111	P/P	56 - 139
1834108	Fipronil	96.8	108	P/P	29 - 143
1834108	Fipronil Sulfide	87.6	98.7	P/P	35 - 129
1834108	Fipronil Sulfone	89.7	103	P/P	16 - 146
1834108	Fonofos	88.5	106	P/P	59 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P311949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834108	Hexazinone	110	112	P/P	68 - 145
1834108	Malathion	110	120	P/P	69 - 131
1834108	Metalaxyl	101	96.9	P/P	67 - 119
1834108	Metolachlor	105	101	P/P	77 - 124
1834108	Metribuzin	160	181	F/F	63 - 134
1834108	Mevinphos	85.2	74.8	P/P	40 - 127
1834108	Molinate	61.6	66.9	P/P	27 - 98.0
1834108	Norflurazon	106	108	P/P	39 - 141
1834108	Parathion Ethyl	99.0	99.8	P/P	74 - 113
1834108	Parathion Methyl	90.1	94.6	P/P	61 - 133
1834108	Pendimethalin	89.5	83.2	P/P	26 - 179
1834108	Phorate	81.0	98.8	P/P	44 - 126
1834108	Prometon	107	88.6	P/P	43 - 147
1834108	Prometryn	108	114	P/P	68 - 126
1834108	Simazine	116	114	P/P	47 - 156
1834108	Terbufos	91.2	101	P/P	53 - 125
1834108	Terbutylazine	99.9	102	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P312318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835775	Dieldrin	103	108	P/P	76 - 128

Reference Method: EPA 8321B
Batch ID: P312305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835239	Pyraclostrobin	110	107	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P312306

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1835238	Glyphosate	96.4	109	P/P	40 - 140

Reference Method: SM 5310 B-00
Batch ID: P312199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834800	Organic Carbon	96.2	97.4	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P311958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834096	2,4,5-T	98.0	84.8	P/P	40 - 140
1834096	2,4-D	109	102	P/P	40 - 140
1834096	2,4-DB	53.2	53.6	P/P	40 - 140
1834096	Acetaminophen	74.0	68.8	P/P	40 - 140
1834096	Acifluorfen	141	73.6	F/P	40 - 140
1834096	Bentazon	198	176	F/F	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P311958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1834096	Carbamazepine	78.0	70.0	P/P	40 - 140
1834096	Dichlorprop	121	104	P/P	40 - 140
1834096	Dinoseb	106	76.8	P/P	40 - 140
1834096	Diuron	47.6	46.4	P/P	40 - 140
1834096	Fenuron	54.8	54.4	P/P	40 - 140
1834096	Fluridone	72.0	69.2	P/P	40 - 140
1834096	Imidacloprid	172	160	F/P	40 - 160
1834096	Linuron	70.4	61.2	P/P	40 - 140
1834096	MCPA	110	99.6	P/P	40 - 140
1834096	MCPP	132	105	P/P	40 - 140
1834096	Picloram	102	111	P/P	40 - 140
1834096	Primidone	76.4	72.8	P/P	40 - 140
1834096	Silvex	125	111	P/P	40 - 140
1834096	Triclopyr	60.0	50.8	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P312077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835003	Turbidity	1.74	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P312078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835206	Turbidity	2.14	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P312301

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835205	Chloride	0.322	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P312303

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835205	Sulfate	10.2	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P312834

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P312834

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1836244	Sulfate	0.167	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835213	Ammonia-N	0.814	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P312619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834074	Ammonia-N	4.10	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835213	Kjeldahl Nitrogen	2.16	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P312603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835305	Kjeldahl Nitrogen	5.31	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P312339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834294	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P312961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835006	Total-P	0.664	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P313019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835304	Total-P	1.05	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P312067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835220	O-Phosphate-P	0.680	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P311949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834108	Acetochlor	1.62	Spike	P	0 - 30
1834108	Alachlor	1.32	Spike	P	0 - 30
1834108	Ametryn	5.41	Spike	P	0 - 30
1834108	Atrazine	2.76	Spike	P	0 - 30
1834108	Atrazine Desethyl	15.2	Spike	P	0 - 30
1834108	Azinphos Methyl	9.09	Spike	P	0 - 30
1834108	Bromacil	4.43	Spike	P	0 - 30
1834108	Butylate	5.84	Spike	P	0 - 30
1834108	Chlorpyrifos Ethyl	19.3	Spike	P	0 - 30
1834108	Chlorpyrifos Methyl	8.95	Spike	P	0 - 30
1834108	Cyanazine	31.2	Spike	F	0 - 30
1834108	Demeton	15.5	Spike	P	0 - 30
1834108	Diazinon	3.89	Spike	P	0 - 30
1834108	Disulfoton	8.04	Spike	P	0 - 30
1834108	EPTC	0.0806	Spike	P	0 - 30
1834108	Ethion	3.45	Spike	P	0 - 30
1834108	Ethoprop	2.81	Spike	P	0 - 30
1834108	Fenamiphos	7.20	Spike	P	0 - 30
1834108	Fipronil	11.2	Spike	P	0 - 30
1834108	Fipronil Sulfide	11.9	Spike	P	0 - 30
1834108	Fipronil Sulfone	14.1	Spike	P	0 - 30
1834108	Fonofos	17.9	Spike	P	0 - 30
1834108	Hexazinone	1.52	Spike	P	0 - 30
1834108	Malathion	8.85	Spike	P	0 - 30
1834108	Metalaxyl	4.46	Spike	P	0 - 30
1834108	Metolachlor	3.14	Spike	P	0 - 30
1834108	Metribuzin	12.4	Spike	P	0 - 30
1834108	Mevinphos	13.0	Spike	P	0 - 30
1834108	Molinate	8.14	Spike	P	0 - 30
1834108	Norflurazon	1.78	Spike	P	0 - 30
1834108	Parathion Ethyl	0.838	Spike	P	0 - 30
1834108	Parathion Methyl	4.81	Spike	P	0 - 30
1834108	Pendimethalin	7.31	Spike	P	0 - 30
1834108	Phorate	19.9	Spike	P	0 - 30
1834108	Prometon	19.3	Spike	P	0 - 30
1834108	Prometryn	5.78	Spike	P	0 - 30
1834108	Simazine	0.957	Spike	P	0 - 30
1834108	Terbufos	10.5	Spike	P	0 - 30
1834108	Terbutylazine	1.98	Spike	P	0 - 30
LFB	Acetochlor	0.368	LCS	P	0 - 30
LFB	Alachlor	1.86	LCS	P	0 - 30
LFB	Ametryn	23.3	LCS	P	0 - 30
LFB	Atrazine	1.65	LCS	P	0 - 30
LFB	Atrazine Desethyl	17.9	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P311949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Azinphos Methyl	17.8	LCS	P	0 - 30
LFB	Bromacil	1.21	LCS	P	0 - 30
LFB	Butylate	16.7	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.75	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.80	LCS	P	0 - 30
LFB	Cyanazine	43.4	LCS	F	0 - 30
LFB	Demeton	11.3	LCS	P	0 - 30
LFB	Diazinon	2.03	LCS	P	0 - 30
LFB	Disulfoton	5.30	LCS	P	0 - 30
LFB	EPTC	13.5	LCS	P	0 - 30
LFB	Ethion	0.851	LCS	P	0 - 30
LFB	Ethoprop	3.32	LCS	P	0 - 30
LFB	Fenamiphos	9.98	LCS	P	0 - 30
LFB	Fipronil	3.18	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.81	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.61	LCS	P	0 - 30
LFB	Fonofos	14.5	LCS	P	0 - 30
LFB	Hexazinone	0.823	LCS	P	0 - 30
LFB	Malathion	2.70	LCS	P	0 - 30
LFB	Metalaxyl	0.798	LCS	P	0 - 30
LFB	Metolachlor	1.17	LCS	P	0 - 30
LFB	Metribuzin	56.7	LCS	F	0 - 30
LFB	Mevinphos	20.7	LCS	P	0 - 30
LFB	Molinate	3.22	LCS	P	0 - 30
LFB	Norflurazon	3.90	LCS	P	0 - 30
LFB	Parathion Ethyl	5.39	LCS	P	0 - 30
LFB	Parathion Methyl	2.74	LCS	P	0 - 30
LFB	Pendimethalin	3.82	LCS	P	0 - 30
LFB	Phorate	17.4	LCS	P	0 - 30
LFB	Prometon	12.5	LCS	P	0 - 30
LFB	Prometryn	18.8	LCS	P	0 - 30
LFB	Simazine	0.867	LCS	P	0 - 30
LFB	Terbufos	6.90	LCS	P	0 - 30
LFB	Terbuthylazine	6.44	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P312318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835775	Dieldrin	4.70	Spike	P	0 - 30
LFB	Dieldrin	4.86	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P312305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835239	Pyraclostrobin	2.95	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P312306

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835238	Glyphosate	12.1	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P312032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835004	Color (true)	5.57	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P312033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835454	Color (true)	4.25	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P312273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835409	Total Alkalinity	0.295	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P312417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834562	TDS	2.50	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P312418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835204	TDS	9.74	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P312277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1835409	Fluoride	0.513	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P312199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834800	Organic Carbon	0.912	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P311958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1834096	2,4,5-T	14.4	Spike	P	0 - 30
1834096	2,4-D	7.21	Spike	P	0 - 30
1834096	2,4-DB	0.749	Spike	P	0 - 30
1834096	Acetaminophen	7.28	Spike	P	0 - 30
1834096	Acifluorfen	62.9	Spike	F	0 - 30
1834096	Bentazon	11.7	Spike	P	0 - 30
1834096	Carbamazepine	10.8	Spike	P	0 - 30
1834096	Dichlorprop	15.7	Spike	P	0 - 30
1834096	Dinoseb	31.9	Spike	F	0 - 30
1834096	Diuron	2.55	Spike	P	0 - 30
1834096	Fenuron	0.733	Spike	P	0 - 30
1834096	Fluridone	3.97	Spike	P	0 - 30
1834096	Imidacloprid	7.00	Spike	P	0 - 30
1834096	Linuron	14.0	Spike	P	0 - 30
1834096	MCPA	10.3	Spike	P	0 - 30
1834096	MCP	22.6	Spike	P	0 - 30
1834096	Picloram	8.27	Spike	P	0 - 30
1834096	Primidone	4.83	Spike	P	0 - 30
1834096	Silvex	11.8	Spike	P	0 - 30
1834096	Triclopyr	16.6	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: 1835238
Field Sample ID: G1NE0209 09272016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	114	P	50 - 150
USGS O-2060-01	2,4-D-d3	103	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	63.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	63.8	P	40 - 160
USGS O-2060-01	Diuron-d6	34.8	F	40 - 150
USGS O-2060-01	Primidone-d5	58.2	P	40 - 150

Lab Sample ID: 1835239
Field Sample ID: G1NE0209 09272016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	86.6	P	40 - 150

Lab Sample ID: 1835258
Field Sample ID: G1NE0209 09272016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	77.1	P	56 - 133
EPA 8270D	Tetrachloro-m-xylene	65.5	P	47 - 94.0

Quality Assurance Report Surrogates

Lab Sample ID: 1835259
Field Sample ID: G1NE0209 09272016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	96.2	P	65 - 132
EPA 8270D	Simazine-d10	88.9	P	72 - 128

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A71882

Included Lab Sample IDs: 1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.8	98.1	P/P	90 - 110
Chloride	98.1	98.9	P/P	90 - 110
Chloride	98.9	100	P/P	90 - 110
Sulfate	98.5	98.6	P/P	90 - 110
Sulfate	98.5	100	P/P	90 - 110
Sulfate	98.6	98.5	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A71886

Included Lab Sample IDs: 1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	103	P/P	85 - 115
Color (true)	101	99.0	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A71901

Included Lab Sample IDs: 1835217, 1835218, 1835219, 1835220, 1835221, 1835222, 1835223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.5	P/P	90 - 110
O-Phosphate-P	99.7	101	P/P	90 - 110
O-Phosphate-P	99.9	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A71903

Included Lab Sample IDs: 1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: USGS O-2060-01

Run ID: A71928

Included Lab Sample IDs: 1835238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	117	119	P/P	60 - 150
Carbamazepine	103	107	P/P	60 - 150
Diuron	91.2	88.8	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A71928

Included Lab Sample IDs: 1835238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	98.8	104	P/P	60 - 150
Fluridone	95.6	99.6	P/P	60 - 150
Imidacloprid	100	100	P/P	60 - 150
Linuron	85.2	90.8	P/P	60 - 150
Primidone	96.4	98.0	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A71934

Included Lab Sample IDs: 1835238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	96.2	91.0	P/P	50 - 150
2,4-D	84.2	90.2	P/P	50 - 150
2,4-DB	75.0	73.6	P/P	50 - 150
Acifluorfen	111	134	P/P	50 - 150
Bentazon	93.8	117	P/P	50 - 150
Dichlorprop	104	119	P/P	50 - 150
Dinoseb	108	89.6	P/P	50 - 150
MCPA	97.0	103	P/P	50 - 150
MCPP	94.6	101	P/P	50 - 150
Picloram	94.8	93.8	P/P	50 - 150
Silvex	81.6	87.4	P/P	50 - 150
Triclopyr	107	92.6	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A71943

Included Lab Sample IDs: 1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216

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

Reference Method: SM 2320 B-97

Run ID: A71961

Included Lab Sample IDs: 1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

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

Reference Method: SM 4500 F-C-97

Run ID: A71961

Included Lab Sample IDs: 1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

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

Reference Method: EPA 8321B

Run ID: A71980

Included Lab Sample IDs: 1835238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	96.8	100	P/P	70 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A71983

Included Lab Sample IDs: 1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A72029

Included Lab Sample IDs: 1835210, 1835211, 1835212, 1835213, 1835214, 1835215

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	P/P	90 - 110
Ammonia-N	102	103	P/P	90 - 110
Ammonia-N	105	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A72057

Included Lab Sample IDs: 1835216

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.5	98.1	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A72063

Included Lab Sample IDs: 1835259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	93.7		P	80 - 120
Alachlor	92.6		P	80 - 120
Ametryn	98.7		P	80 - 120
Atrazine	90.0		P	80 - 120
Atrazine Desethyl	91.2		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	97.5		P	80 - 120
Butylate	102		P	80 - 120
Chlorpyrifos Ethyl	98.9		P	80 - 120
Chlorpyrifos Methyl	98.0		P	80 - 120
Cyanazine	100		P	80 - 120
Demeton	106		P	80 - 120
Diazinon	90.9		P	80 - 120
Disulfoton	96.0		P	80 - 120
EPTC	94.5		P	80 - 120
Ethion	99.7		P	80 - 120
Ethoprop	99.3		P	80 - 120
Fenamiphos	97.6		P	80 - 120
Fipronil	90.4		P	80 - 120
Fipronil Sulfide	93.8		P	80 - 120
Fipronil Sulfone	94.2		P	80 - 120
Fonofos	93.5		P	80 - 120
Hexazinone	99.7		P	80 - 120
Malathion	95.0		P	80 - 120
Metaxyl	99.7		P	80 - 120
Metolachlor	97.8		P	80 - 120
Metribuzin	92.6		P	80 - 120
Mevinphos	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A72063

Included Lab Sample IDs: 1835259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molinate	98.8		P	80 - 120
Norflurazon	94.1		P	80 - 120
Parathion Ethyl	103		P	80 - 120
Parathion Methyl	94.6		P	80 - 120
Pendimethalin	90.1		P	80 - 120
Phorate	98.3		P	80 - 120
Prometon	91.7		P	80 - 120
Prometryn	91.9		P	80 - 120
Simazine	100		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbuthylazine	96.2		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A72071

Included Lab Sample IDs: 1835210, 1835211, 1835212, 1835213, 1835214, 1835215

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	93.2	P/P	90 - 110
Kjeldahl Nitrogen	95.7	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A72077

Included Lab Sample IDs: 1835239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	101	112	P/P	60 - 150

Reference Method: EPA 8270D

Run ID: A72108

Included Lab Sample IDs: 1835258

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	99.1		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A72114

Included Lab Sample IDs: 1835216

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A72131

Included Lab Sample IDs: 1835206

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	98.5	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A72194

Included Lab Sample IDs: 1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216

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

* 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						1.74	
	Turbidity						2.14	
EPA 300.0 Rev. 2.1	Chloride	99.5		100	99.4		0.322	
	Sulfate	95.9		98.5			10.2	
	Sulfate	95.7		93.5	93.3	94.6		0.167
EPA 350.1 Rev. 2.0	Ammonia-N	105		103	101			0.814
	Ammonia-N	101		105	99.7			4.10
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102						2.16
	Kjeldahl Nitrogen	101						5.31
EPA 353.2 Rev. 2.0	NO2NO3-N	108		106	106			0.0
EPA 365.1 Rev. 2.0	Total-P	99.8		99.6	98.9			0.664
	Total-P	101		103	102			1.05
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		98.4	99.1			0.680
EPA 8270D	Acetochlor	94.5	94.2	99.4	97.8	0.368		1.62
	Alachlor	96.2	94.4	97.0	98.3	1.86		1.32
	Ametryn	114	89.9	110	116	23.3		5.41
	Atrazine	102	103	105	108	1.65		2.76
	Atrazine Desethyl	73.4	61.3	60.2	70.1	17.9		15.2
	Azinphos Methyl	132	111	139	153	17.8		9.09
	Bromacil	94.5	95.7	95.7	100	1.21		4.43
	Butylate	50.3	59.5	40.9	43.3	16.7		5.84
	Chlorpyrifos Ethyl	93.4	84.8	80.2	97.3	9.75		19.3
	Chlorpyrifos Methyl	83.2	80.9	78.6	86.0	2.80		8.95
	Cyanazine	155	99.7	146	201	43.4		31.2
	Demeton	92.2	82.3	80.3	93.7	11.3		15.5
	Diazinon	99.8	97.8	105	101	2.03		3.89
	Dieldrin	99.6	94.8	103	108	4.86		4.70
	Disulfoton	92.6	97.7	105	96.5	5.30		8.04
	EPTC	51.4	58.9	36.9	36.9	13.5		0.0806
	Ethion	110	111	118	122	0.851		3.45
	Ethoprop	84.5	81.7	90.1	92.7	3.32		2.81
	Fenamiphos	106	95.9	103	111	9.98		7.20
	Fipronil	96.0	99.1	96.8	108	3.18		11.2
	Fipronil Sulfide	94.0	96.7	87.6	98.7	2.81		11.9
	Fipronil Sulfone	96.5	89.5	89.7	103	7.61		14.1
	Fonofos	99.4	85.9	88.5	106	14.5		17.9
	Hexazinone	111	112	110	112	0.823		1.52

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Malathion	110	107	110	120	2.70	8.85
	Metalaxyl	97.2	96.5	101	96.9	0.798	4.46
	Metolachlor	97.5	98.6	105	101	1.17	3.14
	Metribuzin	164	91.8	160	181	56.7	12.4
	Mevinphos	76.8	62.4	85.2	74.8	20.7	13.0
	Molinate	68.8	66.7	61.6	66.9	3.22	8.14
	Norflurazon	102	98.2	106	108	3.90	1.78
	Parathion Ethyl	95.1	100	99.0	99.8	5.39	0.838
	Parathion Methyl	86.5	88.9	90.1	94.6	2.74	4.81
	Pendimethalin	88.6	85.3	89.5	83.2	3.82	7.31
	Phorate	97.7	82.1	81.0	98.8	17.4	19.9
	Prometon	110	97.2	107	88.6	12.5	19.3
	Prometryn	118	98.1	108	114	18.8	5.78
	Simazine	108	109	116	114	0.867	0.957
	Terbufos	89.5	95.9	91.2	101	6.90	10.5
	Terbutylazine	101	94.4	99.9	102	6.44	1.98
	Glyphosate	100		96.4	109		12.1
	Pyraclostrobin	96.0		110	107		2.95
EPA 8321B							
SM 2120 B	Color (true)					5.57	
	Color (true)					4.25	
SM 2320 B-97	Total Alkalinity	104				0.295	
SM 2540 C-97	TDS					2.50	
	TDS					9.74	
SM 4500 F-C-97	Fluoride	97.9					0.513
SM 5310 B-00	Organic Carbon	99.3		96.2	97.4		0.912
USGS O-2060-01	2,4,5-T	78.8		98.0	84.8		14.4
	2,4-D	86.4		109	102		7.21
	2,4-DB	46.8		53.2	53.6		0.749
	Acetaminophen	132		74.0	68.8		7.28
	Acifluorfen	116		141	73.6		62.9
	Bentazon	114		198	176		11.7
	Carbamazepine	114		78.0	70.0		10.8
	Dichlorprop	94.4		121	104		15.7
	Dinoseb	84.8		106	76.8		31.9
	Diuron	82.4		47.6	46.4		2.55
	Fenuron	103		54.8	54.4		0.733
	Fluridone	104		72.0	69.2		3.97
	Imidacloprid	108		172	160		7.00
	Linuron	89.6		70.4	61.2		14.0
	MCPA	91.6		110	99.6		10.3
	MCPP	95.2		132	105		22.6
	Picloram	40.8		102	111		8.27
	Primidone	105		76.4	72.8		4.83
	Silvex	92.4		125	111		11.8
	Triclopyr	64.0		60.0	50.8		16.6

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1835217, 1835218, 1835219, 1835220, 1835221, 1835222, 1835223
EPA 8270D / E31780	Organochlorine pesticides (ultra low level) in water matrices by GC/MS/MS	1835258
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1835259
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1835238
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1835239
SM 2120 B / E31780	True Color measured at 450 nm	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1835238
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1835238

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	09/28/2016			09/28/2016 16:47	Sima Feizi	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
EPA 300.0 Rev. 2.1	09/28/2016			10/01/2016	Ping Hua	1835203, 1835204, 1835205, 1835207, 1835208, 1835209
	09/28/2016			10/10/2016	Ping Hua	1835206
EPA 350.1 Rev. 2.0	09/28/2016			10/04/2016	Sofia Elnemr	1835210, 1835211, 1835212, 1835213, 1835214, 1835215
	09/28/2016			10/05/2016	Sofia Elnemr	1835216
EPA 351.2 Rev. 2.0	09/28/2016	10/05/2016	Adrian Shelby	10/06/2016	Joseph Suarez	1835210, 1835211, 1835212, 1835213, 1835214, 1835215
	09/28/2016	10/06/2016	Adrian Shelby	10/07/2016	Christopher Armour	1835216
EPA 353.2 Rev. 2.0	09/28/2016			10/03/2016	Beverly Y. Sanders	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
EPA 365.1 Rev. 2.0	09/28/2016	10/12/2016	Vijayalakshmi Reddy	10/12/2016	Lipi Saha	1835210, 1835211, 1835212, 1835213, 1835214, 1835215, 1835216
EPA 365.1 Rev. 2.0 dissolved	09/28/2016			09/28/2016 16:23	Julia Storbeck	1835220
	09/28/2016			09/28/2016 17:05	Julia Storbeck	1835221
	09/28/2016			09/28/2016 17:06	Julia Storbeck	1835222
	09/28/2016			09/28/2016 17:28	Julia Storbeck	1835217
	09/28/2016			09/28/2016 17:29	Julia Storbeck	1835218
	09/28/2016			09/28/2016 17:30	Julia Storbeck	1835219
	09/28/2016			09/28/2016 17:31	Julia Storbeck	1835223
EPA 8270D	09/28/2016	09/29/2016	Fe-Val Siddell	10/04/2016	Irina Carbone	1835259
	09/28/2016	09/30/2016	Rasheda Ghaffari	10/03/2016	Vandana T. Nagar	1835258
EPA 8321B	09/28/2016	10/03/2016	Juyoung Kim	10/03/2016	Juyoung Kim	1835238
	09/28/2016	10/04/2016	Hoor Shaik	10/06/2016	Juyoung Kim	1835239
SM 2120 B	09/28/2016			09/28/2016 21:52	Julie Michelle Frank	1835206
	09/28/2016			09/28/2016 21:54	Julie Michelle Frank	1835209
	09/28/2016			09/28/2016 22:22	Julie Michelle Frank	1835203
	09/28/2016			09/28/2016 22:23	Julie Michelle Frank	1835204
	09/28/2016			09/28/2016 22:24	Julie Michelle Frank	1835205
	09/28/2016			09/28/2016 22:25	Julie Michelle Frank	1835207
	09/28/2016			09/28/2016 22:26	Julie Michelle Frank	1835208
SM 2320 B-97	09/28/2016			10/01/2016	Dale L. Simmons	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 2540 C-97	09/28/2016			09/30/2016	Yijie Li	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 2540 D-97	09/28/2016			09/30/2016	Yijie Li	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209
SM 4500 F-C-97	09/28/2016			10/01/2016	Dale L. Simmons	1835203, 1835204, 1835205, 1835206, 1835207, 1835208, 1835209

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	09/28/2016			09/29/2016	Julie Michelle Frank	1835210, 1835211, 1835212, 1835213, 1835214
	09/28/2016			09/30/2016	Julie Michelle Frank	1835215, 1835216
USGS O-2060-01	09/28/2016	09/29/2016	Hoor Shaik	09/29/2016	Juyoung Kim	1835238
	09/28/2016	09/29/2016	Hoor Shaik	09/30/2016	Juyoung Kim	1835238