

Chemical Analysis Report

NW-DIST-2019-06-04-02

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

Event Description: **SMP Bioassessment**
Request ID: **RQ-2019-06-03-52**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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Certified by: Colin Wright, Program Administrator

Date Certified: 25-JUN-2019 12:40

A handwritten signature in black ink, reading "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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Juniper Creek above Hwy 85

Collection Date/Time: 06/03/2019 11:00

Field ID: G3NW0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2091066	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P365010	
	EPA 300.0 Rev. 2.1	Chloride	2.5		mg Cl/L	P365310	
		Sulfate	0.63		mg SO4/L	P365313	
	SM 2120 B	Color (true)	13		PCU	P365014	
	SM 2320 B-97	Total Alkalinity	0.82	I	mg CaCO3/L	P365483	
	SM 2540 C-97	TDS	15	U	mg/L	P365621	
	SM 2540 D-97	TSS	3	I	mg/L	P365626	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P365484	
2091068	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P365350	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P365272	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.070		mg N/L	P365199	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P365233	
	SM 5310 B-00	Organic Carbon	1.1		mg C/L	P365296	
2091070	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P365002	
2091078	EPA 8321B	2,4-D	0.0020	U	ug/L	P364985	
		Acesulfame K**	0.10	U	ug/L	P365160	
		AMPA**	0.10	U	ug/L	P365160	
		Sucralose**	0.010	U	ug/L	P365160	
		Acetaminophen**	0.0080	U	ug/L	P364985	
		Endothall**	0.25	U	ug/L	P365160	
		Glufosinate**	0.10	U	ug/L	P365160	
		Bentazon	8.0E-04	U	ug/L	P364985	
		Glyphosate**	0.10	U	ug/L	P365160	
		Carbamazepine**	8.0E-04	U	ug/L	P364985	
		Diuron	0.0020	U	ug/L	P364985	
		Fenuron	0.016	U	ug/L	P364985	
		Fluridone**	8.0E-04	U	ug/L	P364985	
		Imazapyr**	0.0040	U	ug/L	P364985	
		Hydrocodone**	0.0020	U	ug/L	P364985	
		Ibuprofen**	0.020	U	ug/L	P364985	
		Imidacloprid	0.0020	U	ug/L	P364985	
		Linuron	0.0040	U	ug/L	P364985	
		MCPP	0.0020	U	ug/L	P364985	
		Naproxen**	0.0080	U	ug/L	P364985	
		Primidone**	0.0040	U	ug/L	P364985	
		Pyraclostrobin**	0.0020	U	ug/L	P364985	
		Triclopyr**	0.0040	U	ug/L	P364985	
2091080	EPA 200.7 Rev. 4.4	Barium	7.3		ug/L	P365226	
		Calcium	0.33		mg/L	P365226	
		Iron	46	I	ug/L	P365226	
		Magnesium	0.33		mg/L	P365226	
		Potassium	0.30	U	mg/L	P365226	
		Sodium	1.6	I	mg/L	P365226	

Field ID: G3NW0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2091080	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P365226	
	EPA 200.8 Rev. 5.4	Aluminum	60		ug/L	P365226	
		Antimony	0.050	U	ug/L	P365226	
		Arsenic	0.050	U	ug/L	P365226	
		Boron**	6.9	I	ug/L	P365226	
		Cadmium	0.020	U	ug/L	P365226	
		Chromium	0.40	U	ug/L	P365226	
		Copper	0.40	U	ug/L	P365226	
		Lead	0.20	U	ug/L	P365226	
		Nickel	0.50	U	ug/L	P365226	
		Selenium	0.20	U	ug/L	P365226	
		Silver	0.010	U	ug/L	P365226	
		Thallium	0.10	U	ug/L	P365226	
2091082	EPA 8270E	Acetochlor	0.26	U	ng/L	P365018	
		Alachlor	0.26	U	ng/L	P365018	
		Ametryn	0.62	U	ng/L	P365018	
		Atrazine	0.26	U	ng/L	P365018	
		Atrazine Desethyl	1.6	U	ng/L	P365018	
		Azinphos Methyl	5.2	U	ng/L	P365018	
		Bromacil	1.3	I	ng/L	P365018	
		Butylate	0.42	UJ	ng/L	P365018	RPD
		Chlorpyrifos Ethyl	0.26	U	ng/L	P365018	
		Chlorpyrifos Methyl	0.10	U	ng/L	P365018	
		Cyanazine	3.4	U	ng/L	P365018	
		Demeton	7.3	UJ	ng/L	P365018	RPD
		Diazinon	0.13	U	ng/L	P365018	
		Dimethenamid**	0.10	U	ng/L	P365018	
		Disulfoton	0.52	U	ng/L	P365018	
		Dithiopyr**	0.10	U	ng/L	P365018	
		EPTC	1.3	UJ	ng/L	P365018	RPD
		Ethion	0.16	U	ng/L	P365018	
		Ethoprop	0.10	UJ	ng/L	P365018	LCS, RPD
		Fenamiphos	0.52	U	ng/L	P365018	
		Fipronil	0.26	UJ	ng/L	P365018	RPD
		Fipronil Desulfinyl**	0.13	U	ng/L	P365018	
		Fipronil Sulfide	0.16	U	ng/L	P365018	
		Fipronil Sulfone	0.16	U	ng/L	P365018	
		Fonofos	0.21	UJ	ng/L	P365018	LCS
		Hexazinone	150	J	ng/L	P365018	LCS
		Malathion	0.36	U	ng/L	P365018	
		Metalaxyl	0.31	UJ	ng/L	P365018	LCS, MS, RPD
		Metolachlor	0.52	U	ng/L	P365018	
		Metribuzin	0.78	U	ng/L	P365018	
		Mevinphos	0.52	UJ	ng/L	P365018	LCS, RPD

Field ID: G3NW0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2091082	EPA 8270E	Molinate	0.31	UJ	ng/L	P365018	RPD
		Norflurazon	0.52	U	ng/L	P365018	
		Oxadiazon**	0.10	U	ng/L	P365018	
		Parathion Ethyl	0.26	U	ng/L	P365018	
		Parathion Methyl	0.57	UJ	ng/L	P365018	LCS
		Pendimethalin	1.0	U	ng/L	P365018	
		Phorate	0.26	UJ	ng/L	P365018	LCS, RPD
		Prodiamine**	0.18	UJ	ng/L	P365018	MS
		Prometon	0.94	U	ng/L	P365018	
		Prometryn	0.21	U	ng/L	P365018	
		Simazine	0.52	U	ng/L	P365018	
		Tebuconazole**	0.52	U	ng/L	P365018	
		Terbufos	0.10	UJ	ng/L	P365018	LCS
		Terbuthylazine	0.44	U	ng/L	P365018	

Ref. Method and Comment:

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

EPA 8270E: MS accuracy for hexazinone not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

**Sample Location: GARNIER CREEK UPSTREAM OF LEWIS
TURNER BLVD**

Collection Date/Time: 06/03/2019 13:30

Field ID: G3NW0205

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2091067	EPA 180.1 Rev. 2.0	Turbidity	6.2		NTU	P365010	
	EPA 300.0 Rev. 2.1	Chloride	4.3		mg Cl/L	P365310	
		Sulfate	2.8		mg SO4/L	P365313	
	SM 2120 B	Color (true)	13		PCU	P365014	
	SM 2320 B-97	Total Alkalinity	6.1		mg CaCO3/L	P365483	
	SM 2540 C-97	TDS	20	I	mg/L	P365621	
	SM 2540 D-97	TSS	14		mg/L	P365626	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P365484	
2091069	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P365351	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P365272	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P365199	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P365233	
	SM 5310 B-00	Organic Carbon	1.4		mg C/L	P365296	
2091071	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P365002	
2091079	EPA 8321B	2,4-D	0.0020	U	ug/L	P364985	
		Acesulfame K**	0.10	U	ug/L	P365160	
		AMPA**	0.10	U	ug/L	P365160	
		Sucralose**	0.056		ug/L	P365160	
		Acetaminophen**	0.0080	U	ug/L	P364985	
		Endothall**	0.25	U	ug/L	P365160	
		Glufosinate**	0.10	U	ug/L	P365160	
		Bentazon	8.0E-04	U	ug/L	P364985	
		Glyphosate**	0.10	U	ug/L	P365160	
		Carbamazepine**	8.0E-04	U	ug/L	P364985	
		Diuron	0.0020	U	ug/L	P364985	
		Fenuron	0.016	U	ug/L	P364985	
		Fluridone**	8.0E-04	U	ug/L	P364985	
		Imazapyr**	0.0040	U	ug/L	P364985	
		Hydrocodone**	0.0020	U	ug/L	P364985	
		Ibuprofen**	0.020	U	ug/L	P364985	
		Imidacloprid	0.0020	U	ug/L	P364985	
		Linuron	0.0040	U	ug/L	P364985	
		MCP	0.0020	U	ug/L	P364985	
		Naproxen**	0.0080	U	ug/L	P364985	
		Primidone**	0.0040	U	ug/L	P364985	
		Pyraclostrobin**	0.0020	U	ug/L	P364985	
		Triclopyr**	0.0040	U	ug/L	P364985	
2091081	EPA 200.7 Rev. 4.4	Barium	6.7		ug/L	P365226	
		Calcium	2.58		mg/L	P365226	
		Iron	43	I	ug/L	P365226	
		Magnesium	0.94		mg/L	P365226	
		Potassium	0.52	I	mg/L	P365226	

Field ID: G3NW0205

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2091081	EPA 200.7 Rev. 4.4	Sodium	3.7		mg/L	P365226	
		Zinc	5.0	U	ug/L	P365226	
	EPA 200.8 Rev. 5.4	Aluminum	102		ug/L	P365226	
		Antimony	0.050	U	ug/L	P365226	
		Arsenic	0.14	I	ug/L	P365226	
		Boron**	14.3		ug/L	P365226	
		Cadmium	0.020	U	ug/L	P365226	
		Chromium	0.40	U	ug/L	P365226	
		Copper	0.40	U	ug/L	P365226	
		Lead	0.40		ug/L	P365226	
		Nickel	0.50	U	ug/L	P365226	
		Selenium	0.20	U	ug/L	P365226	
		Silver	0.010	U	ug/L	P365226	
		Thallium	0.10	U	ug/L	P365226	
2091083	EPA 8270E	Acetochlor	0.25	U	ng/L	P365018	
		Alachlor	0.25	U	ng/L	P365018	
		Ametryn	0.60	U	ng/L	P365018	
		Atrazine	0.25	U	ng/L	P365018	
		Atrazine Desethyl	1.5	U	ng/L	P365018	
		Azinphos Methyl	5.0	U	ng/L	P365018	
		Bromacil	0.50	U	ng/L	P365018	
		Butylate	0.40	UJ	ng/L	P365018	RPD
		Chlorpyrifos Ethyl	0.25	U	ng/L	P365018	
		Chlorpyrifos Methyl	0.099	U	ng/L	P365018	
		Cyanazine	3.2	U	ng/L	P365018	
		Demeton	7.0	UJ	ng/L	P365018	RPD
		Diazinon	0.12	U	ng/L	P365018	
		Dimethenamid**	0.099	U	ng/L	P365018	
		Disulfoton	0.50	U	ng/L	P365018	
		Dithiopyr**	0.099	U	ng/L	P365018	
		EPTC	1.2	UJ	ng/L	P365018	RPD
		Ethion	0.15	U	ng/L	P365018	
		Ethoprop	0.099	UJ	ng/L	P365018	LCS, RPD
		Fenamiphos	0.50	U	ng/L	P365018	
		Fipronil	0.25	UJ	ng/L	P365018	RPD
		Fipronil Desulfinyl**	0.12	U	ng/L	P365018	
		Fipronil Sulfide	0.15	U	ng/L	P365018	
		Fipronil Sulfone	0.15	U	ng/L	P365018	
		Fonofos	0.20	UJ	ng/L	P365018	LCS
		Hexazinone	32	J	ng/L	P365018	LCS
		Malathion	0.35	U	ng/L	P365018	
		Metalaxyl	0.30	UJ	ng/L	P365018	LCS, MS, RPD
		Metolachlor	0.50	U	ng/L	P365018	
		Metribuzin	0.75	U	ng/L	P365018	

Field ID: G3NW0205

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2091083	EPA 8270E	Mevinphos	0.50	UJ	ng/L	P365018	LCS, RPD
		Molinate	0.30	UJ	ng/L	P365018	RPD
		Norflurazon	0.50	U	ng/L	P365018	
		Oxadiazon**	0.099	U	ng/L	P365018	
		Parathion Ethyl	0.25	U	ng/L	P365018	
		Parathion Methyl	0.55	UJ	ng/L	P365018	LCS
		Pendimethalin	0.99	U	ng/L	P365018	
		Phorate	0.25	UJ	ng/L	P365018	LCS, RPD
		Prodiamine**	0.17	U	ng/L	P365018	MS
		Prometon	1.6	I	ng/L	P365018	
		Prometryn	0.20	U	ng/L	P365018	
		Simazine	0.50	U	ng/L	P365018	
		Tebuconazole**	0.50	U	ng/L	P365018	
		Terbufos	0.099	UJ	ng/L	P365018	LCS
		Terbutylazine	0.42	U	ng/L	P365018	

Ref. Method and Comment:

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

EPA 8270E: MS accuracy for hexazinone not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365010

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365226

Component	Result	Code	Units
Barium	1.0	U	ug/L
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: P365226

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365310

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365313

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365350

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365351

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365272

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365199

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365233

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365002

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

Reference Method: EPA 8270E
Batch ID: P365018

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	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	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P365018

Component	Result	Code	Units
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P364985

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	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P365160

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P365160

Component	Result	Code	Units
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P365014

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P365483

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

Reference Method: SM 2540 C-97
Batch ID: P365621

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P365626

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P365484

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P365296

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	104		P	85 - 115
Iron	106		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	104		P	85 - 115
Sodium	106		P	85 - 115
Zinc	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.6		P	85 - 115
Antimony	99.6		P	85 - 115
Arsenic	101		P	85 - 115
Boron	100		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	102		P	85 - 115
Copper	99.7		P	85 - 115
Lead	95.3		P	85 - 115
Nickel	101		P	85 - 115
Selenium	99.5		P	85 - 115
Silver	99.7		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365313

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365350

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365351

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P365272

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P365199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P365233

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365002

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

Reference Method: EPA 8270E
 Batch ID: P365018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	85.4	96.9	P/P	69 - 122
Alachlor	86.7	94.1	P/P	71 - 120
Ametryn	92.1	89.8	P/P	47 - 138
Atrazine	99.6	93.3	P/P	74 - 124
Atrazine Desethyl	61.9	53.8	P/P	38 - 138
Azinphos Methyl	98.8	98.5	P/P	69 - 154
Bromacil	72.5	71.0	P/P	39 - 121
Butylate	29.7	56.7	P/P	27 - 87.0
Chlorpyrifos Ethyl	86.1	92.7	P/P	69 - 118
Chlorpyrifos Methyl	70.2	82.7	P/P	70 - 120
Cyanazine	81.9	69.3	P/P	20 - 250
Demeton	40.0	63.9	P/P	39 - 118
Diazinon	74.8	89.1	P/P	68 - 127
Dimethenamid	85.7	96.2	P/P	66 - 125
Disulfoton	52.9	67.1	P/P	52 - 126
Dithiopyr	92.5	97.0	P/P	67 - 127
EPTC	30.5	57.5	P/P	24 - 88.0
Ethion	98.1	93.0	P/P	51 - 132
Ethoprop	55.0	84.9	F/P	58 - 117
Fenamiphos	51.1	57.3	P/P	38 - 139
Fipronil	61.7	97.7	P/P	61 - 124
Fipronil Desulfinyl	86.8	92.3	P/P	47 - 120
Fipronil Sulfide	88.6	97.7	P/P	56 - 119
Fipronil Sulfone	84.3	92.1	P/P	50 - 117
Fonofos	56.9	75.5	F/P	60 - 121
Hexazinone	52.6	57.0	F/P	55 - 137
Malathion	95.3	93.9	P/P	66 - 126
Metaxyl	5.96	12.2	F/F	33 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P365018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	92.6	99.4	P/P	69 - 119
Metribuzin	71.4	79.0	P/P	31 - 238
Mevinphos	36.2	65.6	F/P	42 - 113
Molinate	34.3	64.3	P/P	32 - 96.0
Norflurazon	104	95.4	P/P	54 - 123
Oxadiazon	102	105	P/P	63 - 128
Parathion Ethyl	76.9	87.4	P/P	72 - 111
Parathion Methyl	72.5	91.0	F/P	74 - 126
Pendimethalin	78.6	93.2	P/P	61 - 131
Phorate	44.0	66.3	F/P	51 - 115
Prodiamine	92.2	108	P/P	38 - 144
Prometon	87.0	83.6	P/P	54 - 119
Prometryn	96.4	94.1	P/P	63 - 120
Simazine	94.4	93.8	P/P	75 - 126
Tebuconazole	80.5	75.9	P/P	20 - 119
Terbufos	58.1	76.5	F/P	64 - 116
Terbutylazine	95.8	94.3	P/P	73 - 117

Reference Method: EPA 8321B
Batch ID: P364985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	114		P	40 - 150
Acetaminophen	90.4		P	30 - 150
Bentazon	112		P	30 - 150
Carbamazepine	105		P	40 - 150
Diuron	90.6		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	95.1		P	40 - 150
Hydrocodone	104		P	40 - 150
Ibuprofen	73.3		P	40 - 150
Imazapyr	93.1		P	40 - 150
Imidacloprid	95.8		P	40 - 150
Linuron	71.0		P	40 - 150
MCPP	115		P	40 - 150
Naproxen	87.2		P	40 - 150
Primidone	92.8		P	40 - 150
Pyraclostrobin	85.5		P	40 - 150
Triclopyr	81.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P365160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	106		P	40 - 150
Endothall	92.4		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	106		P	40 - 140
Sucralose	101		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P365014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	104		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P365483

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P365484

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P365296

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091050	Barium	102		P	80 - 120
2091050	Calcium	106		P	80 - 120
2091050	Iron	105		P	80 - 120
2091050	Magnesium	105		P	80 - 120
2091050	Potassium	100		P	80 - 120
2091050	Sodium	107		P	80 - 120
2091050	Zinc	101		P	80 - 120
2091397	Barium	102	101	P/P	80 - 120
2091397	Calcium	104		P	80 - 120
2091397	Iron	106	105	P/P	80 - 120
2091397	Magnesium	108	107	P/P	80 - 120
2091397	Potassium	106	103	P/P	80 - 120
2091397	Sodium	107	103	P/P	80 - 120
2091397	Zinc	100	99.4	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091050	Aluminum	97.4		P	80 - 120
2091050	Antimony	99.7		P	80 - 120
2091050	Arsenic	99.5		P	80 - 120
2091050	Boron	99.3		P	80 - 120
2091050	Cadmium	100		P	80 - 120
2091050	Chromium	100		P	80 - 120
2091050	Copper	98.7		P	80 - 120
2091050	Lead	94.4		P	80 - 120
2091050	Nickel	99.4		P	80 - 120
2091050	Selenium	96.2		P	80 - 120
2091050	Silver	98.5		P	80 - 120
2091050	Thallium	101		P	80 - 120
2091397	Aluminum	97.1	99.1	P/P	80 - 120
2091397	Antimony	98.5	99.4	P/P	80 - 120
2091397	Arsenic	99.1	99.3	P/P	80 - 120
2091397	Boron	98.8	102	P/P	80 - 120
2091397	Cadmium	101	101	P/P	80 - 120
2091397	Chromium	97.9	99.7	P/P	80 - 120
2091397	Copper	96.0	97.2	P/P	80 - 120
2091397	Lead	92.9	94.0	P/P	80 - 120
2091397	Nickel	97.8	99.0	P/P	80 - 120
2091397	Selenium	95.8	96.9	P/P	80 - 120
2091397	Silver	99.8	99.4	P/P	80 - 120
2091397	Thallium	100	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091040	Chloride	99.3		P	90 - 110
2091106	Chloride	94.8		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091040	Sulfate	99.0		P	90 - 110
2091106	Sulfate	95.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091068	Ammonia-N	103	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091123	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091041	Kjeldahl Nitrogen	106	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091068	NO2NO3-N	97.0	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091041	Total-P	101	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091070	O-Phosphate-P	99.2	99.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P365018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091082	Acetochlor	97.4	108	P/P	63 - 129
2091082	Alachlor	100	108	P/P	65 - 127
2091082	Ametryn	97.9	100	P/P	40 - 164
2091082	Atrazine	100	114	P/P	66 - 135
2091082	Atrazine Desethyl	64.7	66.3	P/P	14 - 157
2091082	Azinphos Methyl	103	116	P/P	49 - 180
2091082	Bromacil	95.2	106	P/P	48 - 130
2091082	Butylate	51.4	51.9	P/P	10 - 94.0
2091082	Chlorpyrifos Ethyl	97.4	102	P/P	58 - 123

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P365018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091082	Chlorpyrifos Methyl	85.0	90.6	P/P	58 - 125
2091082	Cyanazine	95.5	93.4	P/P	24 - 253
2091082	Demeton	61.4	64.5	P/P	25 - 149
2091082	Diazinon	94.3	97.2	P/P	59 - 144
2091082	Dimethenamid	99.7	108	P/P	46 - 139
2091082	Disulfoton	65.7	69.5	P/P	54 - 132
2091082	Dithiopyr	101	109	P/P	64 - 130
2091082	EPTC	51.6	54.7	P/P	10 - 92.0
2091082	Ethion	103	112	P/P	30 - 148
2091082	Ethoprop	81.7	85.2	P/P	50 - 130
2091082	Fenamiphos	86.0	83.9	P/P	49 - 142
2091082	Fipronil	107	117	P/P	46 - 140
2091082	Fipronil Desulfinyln	91.5	103	P/P	30 - 121
2091082	Fipronil Sulfide	98.9	110	P/P	31 - 136
2091082	Fipronil Sulfone	98.9	109	P/P	16 - 136
2091082	Fonofos	83.0	81.8	P/P	55 - 129
2091082	Malathion	97.0	106	P/P	56 - 135
2091082	Metalaxyl	51.9	23.2	F/F	54 - 135
2091082	Metolachlor	101	111	P/P	51 - 140
2091082	Metribuzin	104	98.9	P/P	45 - 254
2091082	Mevinphos	74.8	67.3	P/P	33 - 131
2091082	Molinate	58.8	61.6	P/P	14 - 98.0
2091082	Norflurazon	96.6	114	P/P	34 - 136
2091082	Oxadiazon	99.5	112	P/P	67 - 116
2091082	Parathion Ethyl	89.3	98.3	P/P	66 - 118
2091082	Parathion Methyl	92.4	101	P/P	64 - 136
2091082	Pendimethalin	103	109	P/P	59 - 144
2091082	Phorate	70.0	71.8	P/P	42 - 130
2091082	Prodiamine	135	150	P/F	42 - 148
2091082	Prometon	103	109	P/P	59 - 134
2091082	Prometryn	98.0	109	P/P	54 - 135
2091082	Simazine	95.9	100	P/P	53 - 156
2091082	Tebuconazole	94.3	100	P/P	10 - 131
2091082	Terbufos	82.0	83.9	P/P	57 - 131
2091082	Terbutylazine	100	109	P/P	68 - 125

Reference Method: EPA 8321B
Batch ID: P364985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091078	2,4-D	126	104	P/P	40 - 150
2091078	Acetaminophen	102	96.4	P/P	30 - 150
2091078	Bentazon	122	115	P/P	30 - 150
2091078	Carbamazepine	94.9	97.4	P/P	40 - 150
2091078	Diuron	88.8	89.7	P/P	40 - 150
2091078	Fenuron	102	107	P/P	40 - 150
2091078	Fluridone	98.1	91.5	P/P	40 - 150
2091078	Hydrocodone	108	113	P/P	40 - 150
2091078	Ibuprofen	78.9	60.1	P/P	40 - 150
2091078	Imazapyr	102	109	P/P	40 - 150
2091078	Imidacloprid	128	122	P/P	40 - 150
2091078	Linuron	72.0	69.6	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P364985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091078	MCP	133	118	P/P	40 - 150
2091078	Naproxen	85.2	78.4	P/P	40 - 150
2091078	Primidone	105	104	P/P	40 - 150
2091078	Pyraclostrobin	87.1	82.3	P/P	40 - 150
2091078	Triclopyr	88.1	76.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P365160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091078	Acesulfame K	110	106	P/P	40 - 150
2091078	AMPA	94.1	96.4	P/P	40 - 150
2091078	Endothall	96.5	96.5	P/P	40 - 150
2091078	Glufosinate	96.9	97.7	P/P	40 - 150
2091078	Glyphosate	95.3	97.2	P/P	40 - 140
2091078	Sucralose	102	98.5	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P365484

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091382	Fluoride	104	104	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P365296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2090947	Organic Carbon	93.6	93.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091088	Turbidity	0.930	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091397	Barium	1.22	Spike	P	0 - 20
2091397	Calcium	1.32	Spike	P	0 - 20
2091397	Iron	0.437	Spike	P	0 - 20
2091397	Magnesium	0.273	Spike	P	0 - 20
2091397	Potassium	1.73	Spike	P	0 - 20
2091397	Sodium	2.22	Spike	P	0 - 20
2091397	Zinc	0.724	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091397	Aluminum	1.99	Spike	P	0 - 20
2091397	Antimony	0.928	Spike	P	0 - 20
2091397	Arsenic	0.163	Spike	P	0 - 20
2091397	Boron	3.18	Spike	P	0 - 20
2091397	Cadmium	0.307	Spike	P	0 - 20
2091397	Chromium	1.82	Spike	P	0 - 20
2091397	Copper	1.30	Spike	P	0 - 20
2091397	Lead	1.10	Spike	P	0 - 20
2091397	Nickel	1.19	Spike	P	0 - 20
2091397	Selenium	1.13	Spike	P	0 - 20
2091397	Silver	0.412	Spike	P	0 - 20
2091397	Thallium	2.34	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091040	Chloride	0.124	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P365313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091040	Sulfate	0.480	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091068	Ammonia-N	2.19	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P365351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091123	Ammonia-N	0.247	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P365272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091041	Kjeldahl Nitrogen	1.10	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P365199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091068	NO2NO3-N	1.14	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P365233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091041	Total-P	0.830	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091070	O-Phosphate-P	0.503	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P365018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091082	Acetochlor	10.1	Spike	P	0 - 30
2091082	Alachlor	7.11	Spike	P	0 - 30
2091082	Ametryn	2.52	Spike	P	0 - 30
2091082	Atrazine	13.0	Spike	P	0 - 30
2091082	Atrazine Desethyl	2.48	Spike	P	0 - 30
2091082	Azinphos Methyl	12.2	Spike	P	0 - 30
2091082	Bromacil	9.45	Spike	P	0 - 30
2091082	Butylate	0.918	Spike	P	0 - 30
2091082	Chlorpyrifos Ethyl	4.72	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P365018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091082	Chlorpyrifos Methyl	6.35	Spike	P	0 - 30
2091082	Cyanazine	2.18	Spike	P	0 - 30
2091082	Demeton	4.84	Spike	P	0 - 30
2091082	Diazinon	2.97	Spike	P	0 - 30
2091082	Dimethenamid	7.83	Spike	P	0 - 30
2091082	Disulfoton	5.57	Spike	P	0 - 30
2091082	Dithiopyr	7.69	Spike	P	0 - 30
2091082	EPTC	5.95	Spike	P	0 - 30
2091082	Ethion	8.18	Spike	P	0 - 30
2091082	Ethoprop	4.23	Spike	P	0 - 30
2091082	Fenamiphos	2.47	Spike	P	0 - 30
2091082	Fipronil	9.64	Spike	P	0 - 30
2091082	Fipronil Desulfinyl	12.0	Spike	P	0 - 30
2091082	Fipronil Sulfide	10.6	Spike	P	0 - 30
2091082	Fipronil Sulfone	10.0	Spike	P	0 - 30
2091082	Fonofos	1.46	Spike	P	0 - 30
2091082	Hexazinone	1.91	Spike	P	0 - 30
2091082	Malathion	8.88	Spike	P	0 - 30
2091082	Metalaxyl	76.4	Spike	F	0 - 30
2091082	Metolachlor	9.01	Spike	P	0 - 30
2091082	Metribuzin	4.65	Spike	P	0 - 30
2091082	Mevinphos	10.5	Spike	P	0 - 30
2091082	Molinate	4.56	Spike	P	0 - 30
2091082	Norflurazon	16.3	Spike	P	0 - 30
2091082	Oxadiazon	11.8	Spike	P	0 - 30
2091082	Parathion Ethyl	9.61	Spike	P	0 - 30
2091082	Parathion Methyl	8.48	Spike	P	0 - 30
2091082	Pendimethalin	5.48	Spike	P	0 - 30
2091082	Phorate	2.54	Spike	P	0 - 30
2091082	Prodiamine	10.3	Spike	P	0 - 30
2091082	Prometon	5.52	Spike	P	0 - 30
2091082	Prometryn	10.5	Spike	P	0 - 30
2091082	Simazine	4.26	Spike	P	0 - 30
2091082	Tebuconazole	5.97	Spike	P	0 - 30
2091082	Terbufos	2.36	Spike	P	0 - 30
2091082	Terbuthylazine	8.53	Spike	P	0 - 30
LFB	Acetochlor	12.6	LCS	P	0 - 30
LFB	Alachlor	8.20	LCS	P	0 - 30
LFB	Ametryn	2.50	LCS	P	0 - 30
LFB	Atrazine	6.48	LCS	P	0 - 30
LFB	Atrazine Desethyl	13.8	LCS	P	0 - 30
LFB	Azinphos Methyl	0.250	LCS	P	0 - 30
LFB	Bromacil	2.10	LCS	P	0 - 30
LFB	Butylate	62.7	LCS	F	0 - 30
LFB	Chlorpyrifos Ethyl	7.39	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	16.4	LCS	P	0 - 30
LFB	Cyanazine	16.7	LCS	P	0 - 30
LFB	Demeton	45.9	LCS	F	0 - 30
LFB	Diazinon	17.5	LCS	P	0 - 30
LFB	Dimethenamid	11.6	LCS	P	0 - 30
LFB	Disulfoton	23.6	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P365018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	4.66	LCS	P	0 - 30
LFB	EPTC	61.3	LCS	F	0 - 30
LFB	Ethion	5.34	LCS	P	0 - 30
LFB	Ethoprop	42.8	LCS	F	0 - 30
LFB	Fenamiphos	11.3	LCS	P	0 - 30
LFB	Fipronil	45.2	LCS	F	0 - 30
LFB	Fipronil Desulfinyl	6.09	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.76	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.77	LCS	P	0 - 30
LFB	Fonofos	28.0	LCS	P	0 - 30
LFB	Hexazinone	8.07	LCS	P	0 - 30
LFB	Malathion	1.41	LCS	P	0 - 30
LFB	Metalaxyl	69.0	LCS	F	0 - 30
LFB	Metolachlor	7.09	LCS	P	0 - 30
LFB	Metribuzin	10.1	LCS	P	0 - 30
LFB	Mevinphos	57.7	LCS	F	0 - 30
LFB	Molinate	60.8	LCS	F	0 - 30
LFB	Norflurazon	8.13	LCS	P	0 - 30
LFB	Oxadiazon	2.41	LCS	P	0 - 30
LFB	Parathion Ethyl	12.9	LCS	P	0 - 30
LFB	Parathion Methyl	22.6	LCS	P	0 - 30
LFB	Pendimethalin	17.0	LCS	P	0 - 30
LFB	Phorate	40.3	LCS	F	0 - 30
LFB	Prodiamine	16.2	LCS	P	0 - 30
LFB	Prometon	4.01	LCS	P	0 - 30
LFB	Prometryn	2.47	LCS	P	0 - 30
LFB	Simazine	0.663	LCS	P	0 - 30
LFB	Tebuconazole	5.78	LCS	P	0 - 30
LFB	Terbufos	27.3	LCS	P	0 - 30
LFB	Terbutylazine	1.60	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P364985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091078	2,4-D	18.8	Spike	P	0 - 30
2091078	Acetaminophen	5.53	Spike	P	0 - 30
2091078	Bentazon	6.17	Spike	P	0 - 30
2091078	Carbamazepine	2.61	Spike	P	0 - 30
2091078	Diuron	1.02	Spike	P	0 - 30
2091078	Fenuron	4.81	Spike	P	0 - 30
2091078	Fluridone	6.97	Spike	P	0 - 30
2091078	Hydrocodone	4.22	Spike	P	0 - 30
2091078	Ibuprofen	27.1	Spike	P	0 - 30
2091078	Imazapyr	7.14	Spike	P	0 - 30
2091078	Imidacloprid	5.05	Spike	P	0 - 30
2091078	Linuron	3.46	Spike	P	0 - 30
2091078	MCP	12.1	Spike	P	0 - 30
2091078	Naproxen	8.31	Spike	P	0 - 30
2091078	Primidone	0.662	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P364985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091078	Pyraclostrobin	5.68	Spike	P	0 - 30
2091078	Triclopyr	13.6	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P365160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091078	Acesulfame K	3.31	Spike	P	0 - 30
2091078	AMPA	2.44	Spike	P	0 - 30
2091078	Endothall	0.0369	Spike	P	0 - 30
2091078	Glufosinate	0.847	Spike	P	0 - 30
2091078	Glyphosate	2.00	Spike	P	0 - 30
2091078	Sucralose	3.96	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P365014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091000	Color (true)	0.0815	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P365483

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091382	Total Alkalinity	0.0345	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P365621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091112	TDS	2.58	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P365484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2091382	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P365296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2090947	Organic Carbon	0.239	Spike	P	0 - 20

Quality Assurance Report

Precision

* 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: 2091078
Field Sample ID: G3NW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.3	P	30 - 160
EPA 8321B	Diuron-d6	85.6	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.7	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2091079
Field Sample ID: G3NW0205

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	119	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	87.2	P	30 - 160
EPA 8321B	Endothall-d6	97.2	P	30 - 160
EPA 8321B	Endothall-d6	97.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.7	P	30 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2091082
Field Sample ID: G3NW0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	84.2	P	68 - 130
EPA 8270E	Terbufos-d10	77.4	P	61 - 136

Lab Sample ID: 2091083
Field Sample ID: G3NW0205

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	92.0	P	68 - 130
EPA 8270E	Terbufos-d10	85.4	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A91848

Included Lab Sample IDs: 2091070, 2091071

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	98.9	P/P	90 - 110
O-Phosphate-P	99.6	99.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A91849

Included Lab Sample IDs: 2091066, 2091067

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

Reference Method: SM 2120 B

Run ID: A91850

Included Lab Sample IDs: 2091066, 2091067

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	104	P/P	90 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91854

Included Lab Sample IDs: 2091066, 2091067

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A91913

Included Lab Sample IDs: 2091068, 2091069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	90.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A91953

Included Lab Sample IDs: 2091068, 2091069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A91962

Included Lab Sample IDs: 2091080, 2091081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	103	P/P	90 - 110
Barium	103	102	P/P	90 - 110
Calcium	103	104	P/P	90 - 110
Calcium	104	106	P/P	90 - 110
Iron	102	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A91962

Included Lab Sample IDs: 2091080, 2091081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	103	102	P/P	90 - 110
Magnesium	102	104	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Potassium	102	104	P/P	90 - 110
Sodium	101	104	P/P	90 - 110
Sodium	104	106	P/P	90 - 110
Zinc	101	103	P/P	90 - 110
Zinc	104	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A91966

Included Lab Sample IDs: 2091078, 2091079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	80.1	P/P	60 - 160
Endothall	84.6	88.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A91971

Included Lab Sample IDs: 2091078, 2091079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	93.0	91.8	P/P	60 - 160
Glufosinate	90.3	95.5	P/P	60 - 160
Glyphosate	81.2	95.0	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A91986

Included Lab Sample IDs: 2091068, 2091069

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91989

Included Lab Sample IDs: 2091068, 2091069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92001

Included Lab Sample IDs: 2091068, 2091069

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	99.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A92039

Included Lab Sample IDs: 2091066, 2091067

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

Reference Method: SM 4500 F-C-97

Run ID: A92039

Included Lab Sample IDs: 2091066, 2091067

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	98.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92066

Included Lab Sample IDs: 2091078, 2091079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.9	97.7	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92153

Included Lab Sample IDs: 2091080, 2091081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.6	103	P/P	90 - 110
Antimony	96.7	97.4	P/P	90 - 110
Arsenic	98.0	99.2	P/P	90 - 110
Boron	101	105	P/P	90 - 110
Cadmium	100	99.1	P/P	90 - 110
Chromium	103	95.9	P/P	90 - 110
Copper	100	99.7	P/P	90 - 110
Lead	95.4	94.8	P/P	90 - 110
Nickel	100	99.8	P/P	90 - 110
Selenium	98.4	97.7	P/P	90 - 110
Silver	97.6	97.4	P/P	90 - 110
Thallium	95.0	94.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92168

Included Lab Sample IDs: 2091078, 2091079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.6	101	P/P	50 - 150
Acetaminophen	119	79.7	P/P	60 - 160
Bentazon	107	109	P/P	50 - 160
Carbamazepine	103	106	P/P	60 - 150
Diuron	105	102	P/P	60 - 150
Fenuron	94.5	99.9	P/P	60 - 150
Fluridone	97.9	106	P/P	60 - 160
Hydrocodone	111	100	P/P	60 - 150
Ibuprofen	99.2	86.8	P/P	50 - 160
Imazapyr	98.2	99.2	P/P	50 - 150
Imidacloprid	98.9	89.1	P/P	60 - 150
Linuron	91.4	97.3	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A92168

Included Lab Sample IDs: 2091078, 2091079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCP	95.0	91.9	P/P	50 - 150
Naproxen	99.0	118	P/P	50 - 160
Primidone	105	106	P/P	60 - 150
Pyraclorobin	93.4	94.5	P/P	60 - 150
Triclopyr	101	102	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A92257

Included Lab Sample IDs: 2091082, 2091083

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	97.5		P	80 - 120
Azinphos Methyl	98.5		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.6		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	93.7		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	95.9		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	99.1		P	80 - 120
Ethion	88.8		P	80 - 120
Ethoprop	99.1		P	80 - 120
Fenamiphos	97.0		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	118		P	80 - 120
Fipronil Sulfone	97.6		P	80 - 120
Fonofos	99.1		P	80 - 120
Hexazinone	97.2		P	80 - 120
Malathion	99.0		P	80 - 120
Metaxyl	103		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	99.3		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	98.9		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	107		P	80 - 120
Parathion Ethyl	95.5		P	80 - 120
Parathion Methyl	98.4		P	80 - 120
Pendimethalin	95.3		P	80 - 120
Phorate	96.2		P	80 - 120
Prodiamine	90.2		P	80 - 120
Prometon	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A92257

Included Lab Sample IDs: 2091082, 2091083

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometryn	105		P	80 - 120
Simazine	97.7		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	95.2		P	80 - 120
Terbutylazine	102		P	80 - 120

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.930	
EPA 200.7 Rev. 4.4	Barium	103		102	102	101		1.22
	Calcium	104		106	104			1.32
	Iron	106		105	106	105		0.437
	Magnesium	109		105	108	107		0.273
	Potassium	104		100	106	103		1.73
	Sodium	106		107	107	103		2.22
	Zinc	99.8		101	100	99.4		0.724
EPA 200.8 Rev. 5.4	Aluminum	98.6		97.4	97.1	99.1		1.99
	Antimony	99.6		99.7	98.5	99.4		0.928
	Arsenic	101		99.5	99.1	99.3		0.163
	Boron	100		99.3	98.8	102		3.18
	Cadmium	101		100	101	101		0.307
	Chromium	102		100	97.9	99.7		1.82
	Copper	99.7		98.7	96.0	97.2		1.30
	Lead	95.3		94.4	92.9	94.0		1.10
	Nickel	101		99.4	97.8	99.0		1.19
	Selenium	99.5		96.2	95.8	96.9		1.13
	Silver	99.7		98.5	99.8	99.4		0.412
	Thallium	102		101	100	102		2.34
EPA 300.0 Rev. 2.1	Chloride	98.9		99.3	94.8		0.124	
	Sulfate	97.5		99.0	95.4		0.480	
EPA 350.1 Rev. 2.0	Ammonia-N	99.9		103	105			2.19
	Ammonia-N	98.9		103	104			0.247
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108		106	107			1.10
EPA 353.2 Rev. 2.0	NO2NO3-N	96.0		97.0	95.6			1.14
EPA 365.1 Rev. 2.0	Total-P	100		101	99.8			0.830
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4		99.2	99.7			0.503
EPA 8270E	Acetochlor	96.9	85.4	97.4	108	12.6		10.1
	Alachlor	94.1	86.7	100	108	8.20		7.11
	Ametryn	89.8	92.1	97.9	100	2.50		2.52
	Atrazine	93.3	99.6	100	114	6.48		13.0
	Atrazine Desethyl	53.8	61.9	64.7	66.3	13.8		2.48
	Azinphos Methyl	98.5	98.8	103	116	0.250		12.2
	Bromacil	71.0	72.5	95.2	106	2.10		9.45
	Butylate	56.7	29.7	51.4	51.9	62.7		0.918
	Chlorpyrifos Ethyl	92.7	86.1	97.4	102	7.39		4.72
	Chlorpyrifos Methyl	82.7	70.2	85.0	90.6	16.4		6.35
	Cyanazine	69.3	81.9	95.5	93.4	16.7		2.18
	Demeton	63.9	40.0	61.4	64.5	45.9		4.84
	Diazinon	89.1	74.8	94.3	97.2	17.5		2.97
	Dimethenamid	96.2	85.7	99.7	108	11.6		7.83
	Disulfoton	67.1	52.9	65.7	69.5	23.6		5.57
	Dithiopyr	97.0	92.5	101	109	4.66		7.69
	EPTC	57.5	30.5	51.6	54.7	61.3		5.95
	Ethion	93.0	98.1	103	112	5.34		8.18
	Ethoprop	84.9	55.0	81.7	85.2	42.8		4.23
	Fenamiphos	57.3	51.1	86.0	83.9	11.3		2.47
	Fipronil	97.7	61.7	107	117	45.2		9.64
	Fipronil Desulfanyl	92.3	86.8	91.5	103	6.09		12.0
	Fipronil Sulfide	97.7	88.6	98.9	110	9.76		10.6
	Fipronil Sulfone	92.1	84.3	98.9	109	8.77		10.0
	Fonofos	75.5	56.9	83.0	81.8	28.0		1.46
	Hexazinone	57.0	52.6			8.07		1.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Malathion	93.9	95.3	97.0	106	1.41	8.88
	Metalaxyl	12.2	5.96	51.9	23.2	69.0	76.4
	Metolachlor	99.4	92.6	101	111	7.09	9.01
	Metribuzin	79.0	71.4	104	98.9	10.1	4.65
	Mevinphos	65.6	36.2	74.8	67.3	57.7	10.5
	Molinate	64.3	34.3	58.8	61.6	60.8	4.56
	Norflurazon	95.4	104	96.6	114	8.13	16.3
	Oxadiazon	105	102	99.5	112	2.41	11.8
	Parathion Ethyl	87.4	76.9	89.3	98.3	12.9	9.61
	Parathion Methyl	91.0	72.5	92.4	101	22.6	8.48
	Pendimethalin	93.2	78.6	103	109	17.0	5.48
	Phorate	66.3	44.0	70.0	71.8	40.3	2.54
	Prodiamine	108	92.2	135	150	16.2	10.3
	Prometon	83.6	87.0	103	109	4.01	5.52
	Prometryn	94.1	96.4	98.0	109	2.47	10.5
	Simazine	93.8	94.4	95.9	100	0.663	4.26
	Tebuconazole	75.9	80.5	94.3	100	5.78	5.97
	Terbufos	76.5	58.1	82.0	83.9	27.3	2.36
	Terbuthylazine	94.3	95.8	100	109	1.60	8.53
EPA 8321B	2,4-D	114		126	104		18.8
	Acesulfame K	112		110	106		3.31
	Acetaminophen	90.4		102	96.4		5.53
	AMPA	106		94.1	96.4		2.44
	Bentazon	112		122	115		6.17
	Carbamazepine	105		94.9	97.4		2.61
	Diuron	90.6		88.8	89.7		1.02
	Endothall	92.4		96.5	96.5		0.0369
	Fenuron	109		102	107		4.81
	Fluridone	95.1		98.1	91.5		6.97
	Glufosinate	100		96.9	97.7		0.847
	Glyphosate	106		95.3	97.2		2.00
	Hydrocodone	104		108	113		4.22
	Ibuprofen	73.3		78.9	60.1		27.1
	Imazapyr	93.1		102	109		7.14
	Imidacloprid	95.8		128	122		5.05
	Linuron	71.0		72.0	69.6		3.46
	MCPP	115		133	118		12.1
	Naproxen	87.2		85.2	78.4		8.31
	Primidone	92.8		105	104		0.662
SM 2120 B	Color (true)	104				0.0815	
	Total Alkalinity	103				0.0345	
SM 2320 B-97							
SM 2540 C-97	TDS					2.58	
SM 4500 F-C-97	Fluoride	97.1		104	104		0.0
SM 5310 B-00	Organic Carbon	96.9		93.6	93.3		0.239

Reference Method Descriptions

Method / DoH Cert #
EPA 180.1 Rev. 2.0 /
E31780

Description
Turbidity in aqueous matrices

Associated Samples
2091066, 2091067

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2091080, 2091081
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2091080, 2091081
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2091066, 2091067
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2091066, 2091067
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2091068, 2091069
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2091068, 2091069
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2091068, 2091069
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2091068, 2091069
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2091070, 2091071
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2091082, 2091083
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2091078, 2091079
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2091078, 2091079
SM 2120 B / E31780	True Color measured at 450 nm	2091066, 2091067
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2091066, 2091067
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2091066, 2091067
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2091066, 2091067
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2091066, 2091067
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2091068, 2091069

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	06/04/2019			06/04/2019 17:24	Julia Storbeck	2091066, 2091067
EPA 200.7 Rev. 4.4	06/04/2019	06/06/2019 17:10	Elliott D. Healy	06/07/2019 16:17	Betina Topolski	2091080
	06/04/2019	06/06/2019 17:10	Elliott D. Healy	06/07/2019 16:55	Betina Topolski	2091081
EPA 200.8 Rev. 5.4	06/04/2019	06/06/2019 17:10	Elliott D. Healy	06/18/2019 01:32	Robert K Palmer	2091080
	06/04/2019	06/06/2019 17:10	Elliott D. Healy	06/18/2019 01:42	Robert K Palmer	2091081
EPA 300.0 Rev. 2.1	06/04/2019			06/06/2019 21:34	Lipi Saha	2091066
	06/04/2019			06/06/2019 22:11	Lipi Saha	2091067
EPA 350.1 Rev. 2.0	06/04/2019			06/06/2019 13:04	Ping Hua	2091068
	06/04/2019			06/06/2019 13:42	Ping Hua	2091069
EPA 351.2 Rev. 2.0	06/04/2019	06/07/2019 12:45	Adrian Shelby	06/10/2019 18:07	Virginia P. Brown	2091068
	06/04/2019	06/07/2019 12:45	Adrian Shelby	06/10/2019 18:08	Virginia P. Brown	2091069
EPA 353.2 Rev. 2.0	06/04/2019			06/06/2019 10:58	Beverly Y. Sanders	2091068
	06/04/2019			06/06/2019 11:05	Beverly Y. Sanders	2091069
EPA 365.1 Rev. 2.0	06/04/2019	06/07/2019 11:40	Sima Feizi	06/10/2019 14:48	Julia Storbeck	2091068
	06/04/2019	06/07/2019 11:40	Sima Feizi	06/10/2019 14:49	Julia Storbeck	2091069
EPA 365.1 Rev. 2.0 dissolved	06/04/2019			06/04/2019 15:27	Jhamieka S. Greenwood	2091070
	06/04/2019			06/04/2019 15:46	Jhamieka S. Greenwood	2091071
EPA 8270E	06/04/2019	06/05/2019 09:00	Fe-Val Siddell	06/10/2019 22:21	Vandana T. Nagar	2091082
	06/04/2019	06/05/2019 09:00	Fe-Val Siddell	06/10/2019 22:45	Vandana T. Nagar	2091083
EPA 8321B	06/04/2019	06/06/2019 09:45	Rebecca Ware	06/06/2019 11:32	Rebecca Ware	2091078
	06/04/2019	06/06/2019 09:45	Rebecca Ware	06/06/2019 11:42	Rebecca Ware	2091079
	06/04/2019	06/06/2019 09:45	Rebecca Ware	06/06/2019 19:30	Rebecca Ware	2091078
	06/04/2019	06/06/2019 09:45	Rebecca Ware	06/06/2019 19:44	Rebecca Ware	2091079
	06/04/2019	06/06/2019 09:45	Rebecca Ware	06/11/2019 22:47	Rebecca Ware	2091078
	06/04/2019	06/06/2019 09:45	Rebecca Ware	06/11/2019 22:59	Rebecca Ware	2091079
	06/04/2019	06/07/2019 09:00	Hoor Shaik	06/07/2019 23:27	Juyoung Kim	2091078
	06/04/2019	06/07/2019 09:00	Hoor Shaik	06/08/2019 00:01	Juyoung Kim	2091079
SM 2120 B	06/04/2019			06/04/2019 17:54	Madeline Funaro	2091066, 2091067
SM 2320 B-97	06/04/2019			06/11/2019 20:08	Dale L. Simmons	2091066
	06/04/2019			06/11/2019 20:19	Dale L. Simmons	2091067
SM 2540 C-97	06/04/2019			06/06/2019 15:49	Yijie Li	2091066, 2091067
SM 2540 D-97	06/04/2019			06/06/2019 15:49	Yijie Li	2091066, 2091067
SM 4500 F-C-97	06/04/2019			06/11/2019 20:08	Dale L. Simmons	2091066
	06/04/2019			06/11/2019 20:19	Dale L. Simmons	2091067
SM 5310 B-00	06/04/2019			06/07/2019 08:41	Julia Storbeck	2091068
	06/04/2019			06/07/2019 08:54	Julia Storbeck	2091069