

Chemical Analysis Report

SW-DIST-2020-03-05-01

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

Event Description: **SCIs**
Request ID: **RQ-2020-03-02-31**
Customer: **SW-DIST**
Project ID: **SMP**

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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 26-MAR-2020 13:05

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored 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: Upper Myakka River @ Wingate

Collection Date/Time: 03/04/2020 12:40

Field ID: G3SW0027

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2162439	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P380141	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P380391	
		Sulfate	8.1		mg SO4/L	P380393	
	SM 2120 B-2011	Color (true)	79	A	PCU	P380146	
	SM 2320 B-2011	Total Alkalinity	36		mg CaCO3/L	P380591	
	SM 2540 C-2011	TDS	90		mg/L	P380759	
	SM 2540 D-2011	TSS	2	I	mg/L	P380549	
	SM 4500 F-C-2011	Fluoride	0.18		mg F/L	P380595	MS
2162440	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P380636	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P380298	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P380623	
	EPA 365.1 Rev. 2.0	Total-P	0.38		mg P/L	P380366	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P380351	
2162441	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.36		mg P/L	P380152	
2162489	EPA 8321B	2,4-D	0.0020	U	ug/L	P380207	
		Acesulfame K**	0.10	U	ug/L	P380189	MS
		AMPA**	0.10	U	ug/L	P380189	
		Sucralose**	0.13		ug/L	P380189	
		Acetaminophen**	0.0080	U	ug/L	P380207	
		Acetamiprid**	0.0020	U	ug/L	P380207	
		Endothall**	0.25	U	ug/L	P380189	
		Glufosinate**	0.10	U	ug/L	P380189	
		Glyphosate**	0.10	U	ug/L	P380189	
		Afidopyropen**	0.0020	UJ	ug/L	P380207	
		Bentazon	0.0018	I	ug/L	P380207	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P380207	
		Carbamazepine**	8.0E-04	U	ug/L	P380207	
		Clothianidin**	0.0020	U	ug/L	P380207	
		Dinotefuran**	0.0020	U	ug/L	P380207	
		Diuron	0.0020	U	ug/L	P380207	
		Fenuron	0.016	U	ug/L	P380207	
		Fluridone**	8.0E-04	U	ug/L	P380207	
		Imazapyr**	0.0040	U	ug/L	P380207	
		Hydrocodone**	0.0020	U	ug/L	P380207	
		Ibuprofen**	0.020	U	ug/L	P380207	
		Imidacloprid	0.0040	I	ug/L	P380207	
		Linuron	0.0040	U	ug/L	P380207	
		Mandestrobin**	0.0020	UJ	ug/L	P380207	
		MCP	0.0020	U	ug/L	P380207	
		Naproxen**	0.0080	U	ug/L	P380207	
		Primidone**	0.0040	U	ug/L	P380207	
		Pyraclostrobin**	0.0020	U	ug/L	P380207	
		Thiamethoxam**	0.0020	U	ug/L	P380207	

Field ID: G3SW0027

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2162489	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P380207	
		Triclopyr**	0.0040	U	ug/L	P380207	
2162490	EPA 200.7 Rev. 4.4	Barium	4.8		ug/L	P380311	
		Calcium	12.3		mg/L	P380311	
		Iron	280		ug/L	P380311	
		Magnesium	5.60		mg/L	P380311	
		Potassium	2.1		mg/L	P380311	
		Sodium	8.3		mg/L	P380311	
		Zinc	5.0	U	ug/L	P380311	
	EPA 200.8 Rev. 5.4	Aluminum	95		ug/L	P380311	
		Antimony	0.050	U	ug/L	P380311	
		Arsenic	0.39		ug/L	P380311	
		Boron**	21.8		ug/L	P380311	
		Cadmium	0.020	U	ug/L	P380311	
		Chromium	0.49	I	ug/L	P380311	
		Copper	0.40	U	ug/L	P380311	
		Lead	0.20	U	ug/L	P380311	
		Nickel	0.50	U	ug/L	P380311	
		Selenium	0.20	U	ug/L	P380311	
		Silver	0.010	U	ug/L	P380311	
		Thallium	0.10	U	ug/L	P380311	
	SM 2340B	Hardness	53.8		mg/L	P380311	
2162491	EPA 8270E	Acetochlor	0.24	U	ng/L	P380360	
		Alachlor	0.24	U	ng/L	P380360	
		Ametryn	0.58	U	ng/L	P380360	
		Atrazine	0.64	I	ng/L	P380360	
		Atrazine Desethyl	1.4	U	ng/L	P380360	
		Azinphos Methyl	1.9	U	ng/L	P380360	
		Bromacil	6.0		ng/L	P380360	
		Butylate	0.38	U	ng/L	P380360	
		Carbophenothion	0.48	U	ng/L	P380360	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P380360	
		Chlorpyrifos Methyl	0.048	U	ng/L	P380360	
		Cyanazine	3.1	U	ng/L	P380360	
		Demeton	1.4	U	ng/L	P380360	
		Diazinon	0.12	U	ng/L	P380360	
		Dimethenamid**	0.096	U	ng/L	P380360	
		Disulfoton	0.48	U	ng/L	P380360	
		Dithiopyr**	0.096	U	ng/L	P380360	
		EPTC	1.2	UJ	ng/L	P380360	RPD
		Ethion	0.14	U	ng/L	P380360	RPD
		Ethoprop	0.096	U	ng/L	P380360	
		Fenamiphos	0.48	U	ng/L	P380360	
		Fipronil	0.24	U	ng/L	P380360	
		Fipronil Desulfinyl**	0.12	U	ng/L	P380360	

Field ID: G3SW0027

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2162491	EPA 8270E	Fipronil Sulfide	0.14	U	ng/L	P380360	
		Fipronil Sulfone	0.14	U	ng/L	P380360	
		Flumioxazin**	1.7	U	ng/L	P380360	MS, RPD
		Fonofos	0.19	U	ng/L	P380360	
		Hexazinone	0.48	U	ng/L	P380360	
		Imazalil**	0.72	U	ng/L	P380360	
		Malathion	0.34	U	ng/L	P380360	
		Metaxyl	0.97	I	ng/L	P380360	
		Metolachlor	0.68	I	ng/L	P380360	
		Metribuzin	3.1	U	ng/L	P380360	
		Mevinphos	0.48	U	ng/L	P380360	
		Molinate	0.29	U	ng/L	P380360	
		Naled**	1.4	UJ	ng/L	P380360	RPD
		Norflurazon	0.73	I	ng/L	P380360	
		Oxadiazon**	0.11	I	ng/L	P380360	
		Parathion Ethyl	0.24	UJ	ng/L	P380360	LCS, RPD
		Parathion Methyl	0.53	UJ	ng/L	P380360	LCS, RPD
		Pendimethalin	0.96	UJ	ng/L	P380360	LCS, RPD
		Phorate	0.24	U	ng/L	P380360	
		Prodiamine**	0.17	UJ	ng/L	P380360	LCS, RPD
		Prometon	0.87	U	ng/L	P380360	
		Prometryn	0.19	U	ng/L	P380360	
		Pronamide**	0.14	U	ng/L	P380360	
		Propiconazole**	0.48	U	ng/L	P380360	
		Simazine	0.48	U	ng/L	P380360	
		Sulfentrazone**	0.48	UJ	ng/L	P380360	LCS, MS
		Tebuconazole**	0.48	U	ng/L	P380360	RPD
		Terbufos	0.096	U	ng/L	P380360	
		Terbuthylazine	0.41	U	ng/L	P380360	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380141

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380311

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: P380311

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: P380391

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380393

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380636

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380298

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380366

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380152

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

Reference Method: EPA 8270E
Batch ID: P380360

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	2.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	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
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P380360

Component	Result	Code	Units
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Naled	1.5	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
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	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: P380189

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
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: EPA 8321B
Batch ID: P380207

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P380207

Component	Result	Code	Units
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
Mandestrobin	0.0020	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
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P380146

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P380591

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

Reference Method: SM 2540 C-2011
Batch ID: P380759

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P380549

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380595

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P380351

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: P380311

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	98.4		P	85 - 115
Iron	99.4		P	85 - 115
Magnesium	100		P	85 - 115
Potassium	96.2		P	85 - 115
Sodium	94.8		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380311

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.6		P	85 - 115
Antimony	90.0		P	85 - 115
Arsenic	98.1		P	85 - 115
Boron	97.3		P	85 - 115
Cadmium	95.3		P	85 - 115
Chromium	97.2		P	85 - 115
Copper	101		P	85 - 115
Lead	92.6		P	85 - 115
Nickel	99.0		P	85 - 115
Selenium	96.7		P	85 - 115
Silver	97.5		P	85 - 115
Thallium	97.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380391

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380393

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380636

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380298

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.3		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380366

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: P380152

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

Reference Method: EPA 8270E
Batch ID: P380360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.2	96.7	P/P	71 - 122
Alachlor	92.4	96.7	P/P	70 - 121
Ametryn	102	101	P/P	49 - 137
Atrazine	99.5	104	P/P	76 - 125
Atrazine Desethyl	85.8	89.4	P/P	31 - 144
Azinphos Methyl	123	118	P/P	67 - 150
Bromacil	53.3	58.1	P/P	36 - 121
Butylate	56.7	69.4	P/P	33 - 88.0
Carbophenothion	86.6	94.1	P/P	50 - 150
Chlorpyrifos Ethyl	93.0	97.6	P/P	73 - 117
Chlorpyrifos Methyl	99.4	105	P/P	68 - 121
Cyanazine	122	117	P/P	20 - 250
Demeton	74.1	98.2	P/P	30 - 123
Diazinon	98.4	101	P/P	70 - 128
Dimethenamid	92.9	97.3	P/P	66 - 122
Disulfoton	71.9	95.4	P/P	46 - 124
Dithiopyr	85.8	91.1	P/P	69 - 122
EPTC	47.4	70.9	P/P	31 - 90.0
Ethion	62.7	66.5	P/P	45 - 135
Ethoprop	111	110	P/P	59 - 118
Fenamiphos	80.4	97.1	P/P	30 - 136
Fipronil	93.4	98.3	P/P	57 - 127
Fipronil Desulfinyl	99.5	102	P/P	51 - 122
Fipronil Sulfide	86.5	93.9	P/P	57 - 119
Fipronil Sulfone	69.9	74.5	P/P	51 - 119
Flumioxazin	115	127	P/P	70 - 200
Fonofos	93.0	97.6	P/P	60 - 120
Hexazinone	96.5	104	P/P	57 - 142
Imazalil	90.5	88.4	P/P	50 - 150
Malathion	114	117	P/P	67 - 128
Metaxyl	95.8	98.3	P/P	21 - 148
Metolachlor	85.5	87.8	P/P	70 - 120
Metribuzin	111	124	P/P	20 - 253
Mevinphos	111	101	P/P	47 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P380360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	68.7	81.7	P/P	41 - 99.0
Naled	41.6	60.6	P/P	40 - 130
Norflurazon	90.9	97.6	P/P	54 - 127
Oxadiazon	86.5	91.0	P/P	65 - 122
Parathion Ethyl	37.4	101	F/P	71 - 113
Parathion Methyl	46.3	111	F/P	73 - 129
Pendimethalin	20.2	88.8	F/P	63 - 130
Phorate	90.6	99.5	P/P	48 - 118
Prodiamine	6.82	69.6	F/P	20 - 144
Prometon	97.9	96.4	P/P	53 - 120
Prometryn	99.0	99.8	P/P	63 - 119
Pronamide	101	105	P/P	50 - 150
Propiconazole	84.0	87.7	P/P	50 - 150
Simazine	113	114	P/P	77 - 129
Sulfentrazone	13.1	14.5	F/F	50 - 150
Tebuconazole	37.7	39.8	P/P	20 - 118
Terbufos	93.2	103	P/P	61 - 119
Terbutylazine	96.5	98.1	P/P	75 - 119

Reference Method: EPA 8321B
Batch ID: P380189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	111		P	40 - 150
Endothall	89.9		P	40 - 150
Glufosinate	115		P	40 - 150
Glyphosate	118		P	40 - 140
Sucralose	94.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P380207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	123		P	30 - 160
Acetaminophen	98.1		P	30 - 160
Acetamiprid	109		P	30 - 160
Afidopyropen	109		P	30 - 160
Bentazon	81.3		P	30 - 160
Benzovindiflupyr	88.2		P	30 - 160
Carbamazepine	108		P	30 - 160
Clothianidin	101		P	30 - 160
Dinotefuran	105		P	30 - 160
Diuron	87.3		P	30 - 160
Fenuron	106		P	30 - 160
Fluridone	80.5		P	30 - 160
Hydrocodone	91.6		P	30 - 160
Ibuprofen	89.2		P	30 - 160
Imazapyr	105		P	30 - 160
Imidacloprid	118		P	30 - 160
Linuron	82.7		P	30 - 160
Mandestrobin	85.7		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P380207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCP	120		P	30 - 160
Naproxen	87.3		P	30 - 160
Primidone	103		P	30 - 160
Pyraclostrobin	85.4		P	30 - 160
Thiamethoxam	113		P	30 - 160
Tolfenpyrad	58.2		P	30 - 160
Triclopyr	123		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P380146

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.4		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P380591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P380595

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P380351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162490	Barium	102		P	80 - 120
2162490	Calcium	99.0		P	80 - 120
2162490	Iron	103		P	80 - 120
2162490	Magnesium	101		P	80 - 120
2162490	Potassium	94.4		P	80 - 120
2162490	Sodium	97.0		P	80 - 120
2162490	Zinc	103		P	80 - 120
2162659	Barium	103	103	P/P	80 - 120
2162659	Calcium	100	100	P/P	80 - 120
2162659	Iron	102	104	P/P	80 - 120
2162659	Magnesium	104	104	P/P	80 - 120
2162659	Potassium	96.1	97.6	P/P	80 - 120
2162659	Sodium	93.6	92.6	P/P	80 - 120
2162659	Zinc	105	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162490	Aluminum	97.4		P	80 - 120
2162490	Antimony	90.3		P	80 - 120
2162490	Arsenic	99.9		P	80 - 120
2162490	Boron	95.8		P	80 - 120
2162490	Cadmium	97.1		P	80 - 120
2162490	Chromium	98.8		P	80 - 120
2162490	Copper	105		P	80 - 120
2162490	Lead	94.0		P	80 - 120
2162490	Nickel	104		P	80 - 120
2162490	Selenium	100		P	80 - 120
2162490	Silver	97.6		P	80 - 120
2162490	Thallium	105		P	80 - 120
2162659	Aluminum	93.0	91.8	P/P	80 - 120
2162659	Antimony	89.4	90.0	P/P	80 - 120
2162659	Arsenic	97.4	97.5	P/P	80 - 120
2162659	Boron	94.9	95.6	P/P	80 - 120
2162659	Cadmium	96.9	96.5	P/P	80 - 120
2162659	Chromium	95.8	96.5	P/P	80 - 120
2162659	Copper	102	101	P/P	80 - 120
2162659	Lead	93.1	92.4	P/P	80 - 120
2162659	Nickel	99.9	99.9	P/P	80 - 120
2162659	Selenium	96.4	94.5	P/P	80 - 120
2162659	Silver	95.5	95.5	P/P	80 - 120
2162659	Thallium	95.6	97.6	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162170	Chloride	98.6		P	90 - 110
2162439	Chloride	97.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162170	Sulfate	99.5		P	90 - 110
2162439	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162248	Ammonia-N	97.0	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162538	Kjeldahl Nitrogen	96.2	91.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162440	NO2NO3-N	98.9	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380366

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162247	Total-P	109	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162513	O-Phosphate-P	99.5	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P380360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161918	Acetochlor	89.1	87.1	P/P	68 - 126
2161918	Alachlor	86.7	88.5	P/P	66 - 125
2161918	Ametryn	115	91.0	P/P	31 - 182
2161918	Azinphos Methyl	130	127	P/P	54 - 162
2161918	Bromacil	75.5	77.8	P/P	34 - 144
2161918	Butylate	70.9	79.6	P/P	16 - 92.0
2161918	Carbophenothion	76.0	73.2	P/P	50 - 150
2161918	Chlorpyrifos Ethyl	104	84.2	P/P	63 - 124
2161918	Chlorpyrifos Methyl	94.6	91.1	P/P	64 - 125
2161918	Cyanazine	103	81.8	P/P	13 - 245
2161918	Demeton	116	114	P/P	20 - 154
2161918	Diazinon	97.9	96.7	P/P	66 - 141
2161918	Dimethenamid	107	81.4	P/P	50 - 130
2161918	Disulfoton	78.3	64.1	P/P	55 - 130
2161918	Dithiopyr	77.0	71.6	P/P	66 - 122

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P380360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161918	EPTC	75.2	79.7	P/P	15 - 93.0
2161918	Ethion	87.0	25.5	P/P	15 - 148
2161918	Ethoprop	123	125	P/P	59 - 126
2161918	Fenamiphos	68.8	74.2	P/P	39 - 137
2161918	Fipronil	84.2	75.3	P/P	47 - 131
2161918	Fipronil Desulfinyl	84.8	79.2	P/P	43 - 121
2161918	Fipronil Sulfide	77.1	66.8	P/P	29 - 134
2161918	Fipronil Sulfone	60.9	52.9	P/P	19 - 131
2161918	Flumioxazin	206	144	F/P	70 - 200
2161918	Fonofos	102	97.7	P/P	62 - 128
2161918	Hexazinone	97.4	106	P/P	58 - 154
2161918	Imazalil	79.8	76.3	P/P	50 - 150
2161918	Malathion	116	112	P/P	54 - 135
2161918	Metalaxyl	87.7	89.7	P/P	46 - 136
2161918	Metolachlor	79.5	76.3	P/P	62 - 126
2161918	Metribuzin	113	98.2	P/P	44 - 277
2161918	Mevinphos	131	105	P/P	44 - 135
2161918	Molinate	86.7	85.4	P/P	31 - 104
2161918	Naled	106	102	P/P	40 - 130
2161918	Norflurazon	78.8	74.6	P/P	32 - 134
2161918	Oxadiazon	71.9	61.5	P/P	55 - 123
2161918	Parathion Ethyl	100	98.3	P/P	67 - 120
2161918	Parathion Methyl	132	133	P/P	70 - 140
2161918	Pendimethalin	90.6	87.0	P/P	59 - 145
2161918	Phorate	106	103	P/P	52 - 127
2161918	Prodiamine	51.5	36.9	P/P	11 - 157
2161918	Prometon	87.1	82.9	P/P	55 - 130
2161918	Prometryn	92.7	87.9	P/P	55 - 127
2161918	Pronamide	106	106	P/P	50 - 150
2161918	Propiconazole	73.2	64.4	P/P	50 - 150
2161918	Sulfentrazone	64.3	47.0	P/F	50 - 150
2161918	Tebuconazole	27.1	14.1	P/P	10 - 122
2161918	Terbufos	110	109	P/P	65 - 131
2161918	Terbutylazine	98.9	100	P/P	63 - 131

Reference Method: EPA 8321B
 Batch ID: P380189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161916	Acesulfame K	21.9	22.4	F/F	40 - 150
2161916	AMPA	88.9	87.7	P/P	40 - 150
2161916	Endothall	102	126	P/P	40 - 150
2161916	Glufosinate	103	100	P/P	40 - 150
2161916	Glyphosate	71.1	83.7	P/P	40 - 140
2161916	Sucralose	73.4	47.3	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P380207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162038	2,4-D	122	127	P/P	30 - 160
2162038	Acetaminophen	100	94.5	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P380207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162038	Acetamiprid	111	85.2	P/P	30 - 160
2162038	Afidopyropen	98.4	107	P/P	30 - 160
2162038	Bentazon	73.8	68.0	P/P	30 - 160
2162038	Benzovindiflupyr	89.8	79.1	P/P	30 - 160
2162038	Carbamazepine	82.4	99.8	P/P	30 - 160
2162038	Clothianidin	103	105	P/P	30 - 160
2162038	Dinotefuran	121	107	P/P	30 - 160
2162038	Diuron	95.1	80.7	P/P	30 - 160
2162038	Fenuron	102	92.9	P/P	30 - 160
2162038	Fluridone	85.2	85.7	P/P	30 - 160
2162038	Hydrocodone	98.7	93.5	P/P	30 - 160
2162038	Ibuprofen	84.8	80.0	P/P	30 - 160
2162038	Imazapyr	121	107	P/P	30 - 160
2162038	Imidacloprid	151	148	P/P	30 - 160
2162038	Linuron	84.3	70.2	P/P	30 - 160
2162038	Mandestrobin	85.0	77.3	P/P	30 - 160
2162038	MCCP	122	118	P/P	30 - 160
2162038	Naproxen	82.9	80.7	P/P	30 - 160
2162038	Primidone	110	98.1	P/P	30 - 160
2162038	Pyraclostrobin	83.7	83.7	P/P	30 - 160
2162038	Thiamethoxam	144	136	P/P	30 - 160
2162038	Tolfenpyrad	58.2	54.1	P/P	30 - 160
2162038	Triclopyr	125	139	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P380595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162608	Fluoride	110	110	F/F	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P380351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162537	Organic Carbon	100	104	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380141

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162219	Turbidity	3.17	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162659	Barium	0.0822	Spike	P	0 - 20
2162659	Calcium	0.0701	Spike	P	0 - 20
2162659	Iron	1.58	Spike	P	0 - 20
2162659	Magnesium	0.531	Spike	P	0 - 20
2162659	Potassium	1.44	Spike	P	0 - 20
2162659	Sodium	0.652	Spike	P	0 - 20
2162659	Zinc	0.304	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162659	Aluminum	0.917	Spike	P	0 - 20
2162659	Antimony	0.674	Spike	P	0 - 20
2162659	Arsenic	0.0432	Spike	P	0 - 20
2162659	Boron	0.713	Spike	P	0 - 20
2162659	Cadmium	0.429	Spike	P	0 - 20
2162659	Chromium	0.725	Spike	P	0 - 20
2162659	Copper	0.949	Spike	P	0 - 20
2162659	Lead	0.773	Spike	P	0 - 20
2162659	Nickel	0.0115	Spike	P	0 - 20
2162659	Selenium	2.05	Spike	P	0 - 20
2162659	Silver	0.0103	Spike	P	0 - 20
2162659	Thallium	2.04	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162170	Chloride	0.107	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162170	Sulfate	0.135	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162248	Ammonia-N	2.79	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162538	Kjeldahl Nitrogen	4.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162440	NO2NO3-N	0.948	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380366

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162247	Total-P	3.19	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162513	O-Phosphate-P	1.13	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P380360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161918	Acetochlor	2.26	Spike	P	0 - 30
2161918	Alachlor	2.09	Spike	P	0 - 30
2161918	Ametryn	12.1	Spike	P	0 - 30
2161918	Atrazine	5.09	Spike	P	0 - 30
2161918	Atrazine Desethyl	1.75	Spike	P	0 - 30
2161918	Azinphos Methyl	1.62	Spike	P	0 - 30
2161918	Bromacil	2.08	Spike	P	0 - 30
2161918	Butylate	11.6	Spike	P	0 - 30
2161918	Carbophenothion	3.73	Spike	P	0 - 30
2161918	Chlorpyrifos Ethyl	21.4	Spike	P	0 - 30
2161918	Chlorpyrifos Methyl	3.79	Spike	P	0 - 30
2161918	Cyanazine	22.9	Spike	P	0 - 30
2161918	Demeton	1.91	Spike	P	0 - 30
2161918	Diazinon	1.13	Spike	P	0 - 30
2161918	Dimethenamid	27.0	Spike	P	0 - 30
2161918	Disulfoton	19.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161918	Dithiopyr	5.80	Spike	P	0 - 30
2161918	EPTC	5.83	Spike	P	0 - 30
2161918	Ethion	109	Spike	F	0 - 30
2161918	Ethoprop	1.75	Spike	P	0 - 30
2161918	Fenamiphos	7.64	Spike	P	0 - 30
2161918	Fipronil	8.76	Spike	P	0 - 30
2161918	Fipronil Desulfinyl	5.29	Spike	P	0 - 30
2161918	Fipronil Sulfide	6.68	Spike	P	0 - 30
2161918	Fipronil Sulfone	3.18	Spike	P	0 - 30
2161918	Flumioxazin	35.1	Spike	F	0 - 30
2161918	Fonofos	4.30	Spike	P	0 - 30
2161918	Hexazinone	8.73	Spike	P	0 - 30
2161918	Imazalil	4.50	Spike	P	0 - 30
2161918	Malathion	3.49	Spike	P	0 - 30
2161918	Metalaxyl	2.19	Spike	P	0 - 30
2161918	Metolachlor	4.15	Spike	P	0 - 30
2161918	Metribuzin	14.1	Spike	P	0 - 30
2161918	Mevinphos	21.6	Spike	P	0 - 30
2161918	Molinate	1.55	Spike	P	0 - 30
2161918	Naled	3.92	Spike	P	0 - 30
2161918	Norflurazon	5.45	Spike	P	0 - 30
2161918	Oxadiazon	8.07	Spike	P	0 - 30
2161918	Parathion Ethyl	1.98	Spike	P	0 - 30
2161918	Parathion Methyl	0.656	Spike	P	0 - 30
2161918	Pendimethalin	4.06	Spike	P	0 - 30
2161918	Phorate	2.41	Spike	P	0 - 30
2161918	Prodiamine	33.1	Spike	F	0 - 30
2161918	Prometon	4.06	Spike	P	0 - 30
2161918	Prometryn	5.31	Spike	P	0 - 30
2161918	Pronamide	0.338	Spike	P	0 - 30
2161918	Propiconazole	6.16	Spike	P	0 - 30
2161918	Simazine	1.97	Spike	P	0 - 30
2161918	Sulfentrazone	6.50	Spike	P	0 - 30
2161918	Tebuconazole	63.0	Spike	F	0 - 30
2161918	Terbufos	1.10	Spike	P	0 - 30
2161918	Terbuthylazine	1.52	Spike	P	0 - 30
LFB	Acetochlor	1.54	LCS	P	0 - 30
LFB	Alachlor	4.60	LCS	P	0 - 30
LFB	Ametryn	1.64	LCS	P	0 - 30
LFB	Atrazine	4.77	LCS	P	0 - 30
LFB	Atrazine Desethyl	4.16	LCS	P	0 - 30
LFB	Azinphos Methyl	4.13	LCS	P	0 - 30
LFB	Bromacil	8.68	LCS	P	0 - 30
LFB	Butylate	20.2	LCS	P	0 - 30
LFB	Carbophenothion	8.31	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.82	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.97	LCS	P	0 - 30
LFB	Cyanazine	4.57	LCS	P	0 - 30
LFB	Demeton	28.0	LCS	P	0 - 30
LFB	Diazinon	2.35	LCS	P	0 - 30
LFB	Dimethenamid	4.67	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Disulfoton	28.1	LCS	P	0 - 30
LFB	Dithiopyr	6.01	LCS	P	0 - 30
LFB	EPTC	39.7	LCS	F	0 - 30
LFB	Ethion	5.78	LCS	P	0 - 30
LFB	Ethoprop	1.38	LCS	P	0 - 30
LFB	Fenamiphos	18.7	LCS	P	0 - 30
LFB	Fipronil	5.13	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.84	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.28	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.39	LCS	P	0 - 30
LFB	Flumioxazin	10.2	LCS	P	0 - 30
LFB	Fonofos	4.86	LCS	P	0 - 30
LFB	Hexazinone	7.62	LCS	P	0 - 30
LFB	Imazalil	2.43	LCS	P	0 - 30
LFB	Malathion	2.00	LCS	P	0 - 30
LFB	Metalaxyl	2.53	LCS	P	0 - 30
LFB	Metolachlor	2.72	LCS	P	0 - 30
LFB	Metribuzin	11.5	LCS	P	0 - 30
LFB	Mevinphos	9.01	LCS	P	0 - 30
LFB	Molinate	17.4	LCS	P	0 - 30
LFB	Naled	37.3	LCS	F	0 - 30
LFB	Norflurazon	7.12	LCS	P	0 - 30
LFB	Oxadiazon	5.08	LCS	P	0 - 30
LFB	Parathion Ethyl	91.9	LCS	F	0 - 30
LFB	Parathion Methyl	82.3	LCS	F	0 - 30
LFB	Pendimethalin	126	LCS	F	0 - 30
LFB	Phorate	9.41	LCS	P	0 - 30
LFB	Prodiamine	164	LCS	F	0 - 30
LFB	Prometon	1.60	LCS	P	0 - 30
LFB	Prometryn	0.817	LCS	P	0 - 30
LFB	Pronamide	4.29	LCS	P	0 - 30
LFB	Propiconazole	4.30	LCS	P	0 - 30
LFB	Simazine	0.825	LCS	P	0 - 30
LFB	Sulfentrazone	9.68	LCS	P	0 - 30
LFB	Tebuconazole	5.31	LCS	P	0 - 30
LFB	Terbufos	9.55	LCS	P	0 - 30
LFB	Terbutylazine	1.63	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161916	Acesulfame K	2.32	Spike	P	0 - 30
2161916	AMPA	0.809	Spike	P	0 - 30
2161916	Endothall	21.7	Spike	P	0 - 30
2161916	Glufosinate	3.17	Spike	P	0 - 30
2161916	Glyphosate	5.63	Spike	P	0 - 30
2161916	Sucralose	27.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P380207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162038	2,4-D	3.53	Spike	P	0 - 30
2162038	Acetaminophen	5.85	Spike	P	0 - 30
2162038	Acetamiprid	26.5	Spike	P	0 - 30
2162038	Afidopyropen	8.59	Spike	P	0 - 30
2162038	Bentazon	8.10	Spike	P	0 - 30
2162038	Benzovindiflupyr	12.7	Spike	P	0 - 30
2162038	Carbamazepine	19.0	Spike	P	0 - 30
2162038	Clothianidin	2.48	Spike	P	0 - 30
2162038	Dinotefuran	12.1	Spike	P	0 - 30
2162038	Diuron	16.3	Spike	P	0 - 30
2162038	Fenuron	9.50	Spike	P	0 - 30
2162038	Fluridone	0.552	Spike	P	0 - 30
2162038	Hydrocodone	5.40	Spike	P	0 - 30
2162038	Ibuprofen	5.81	Spike	P	0 - 30
2162038	Imazapyr	13.0	Spike	P	0 - 30
2162038	Imidacloprid	2.34	Spike	P	0 - 30
2162038	Linuron	18.2	Spike	P	0 - 30
2162038	Mandestrobin	9.53	Spike	P	0 - 30
2162038	MCPP	2.84	Spike	P	0 - 30
2162038	Naproxen	2.71	Spike	P	0 - 30
2162038	Primidone	11.4	Spike	P	0 - 30
2162038	Pyraclostrobin	0.0311	Spike	P	0 - 30
2162038	Thiamethoxam	5.80	Spike	P	0 - 30
2162038	Tolfenpyrad	7.33	Spike	P	0 - 30
2162038	Triclopyr	10.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P380146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162439	Color (true)	0.143	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P380591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162608	Total Alkalinity	0.283	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P380759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162169	TDS	2.52	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P380595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162608	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P380351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162537	Organic Carbon	1.76	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2162489
Field Sample ID: G3SW0027

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.1	P	30 - 160
EPA 8321B	Diuron-d6	92.8	P	30 - 160
EPA 8321B	Endothall-d6	129	P	30 - 160
EPA 8321B	Endothall-d6	129	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.6	P	30 - 160
EPA 8321B	Primidone-d5	93.0	P	30 - 160
EPA 8321B	Sucralose-d6	93.1	P	30 - 160
EPA 8321B	Sucralose-d6	93.1	P	30 - 160

Lab Sample ID: 2162491
Field Sample ID: G3SW0027

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	113	P	72 - 135
EPA 8270E	Terbufos-d10	101	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A98022

Included Lab Sample IDs: 2162439

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A98023

Included Lab Sample IDs: 2162441

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	105	105	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A98024

Included Lab Sample IDs: 2162439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.8	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A98063

Included Lab Sample IDs: 2162489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.4	104	P/P	60 - 160
Endothall	114	133	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98096

Included Lab Sample IDs: 2162439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	99.4	P/P	90 - 110
Sulfate	98.9	99.5	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A98099

Included Lab Sample IDs: 2162440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	96.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98104

Included Lab Sample IDs: 2162490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	101	P/P	90 - 110
Calcium	97.8	99.9	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Potassium	99.3	101	P/P	90 - 110
Sodium	98.7	98.7	P/P	90 - 110
Zinc	99.8	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A98125

Included Lab Sample IDs: 2162489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.3	81.7	P/P	40 - 200
Glufosinate	120	115	P/P	40 - 200
Glyphosate	116	114	P/P	40 - 200

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98132

Included Lab Sample IDs: 2162440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.3	98.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98137

Included Lab Sample IDs: 2162490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.4	102	P/P	90 - 110
Arsenic	100	99.6	P/P	90 - 110
Boron	99.3	99.3	P/P	90 - 110
Cadmium	96.1	95.8	P/P	90 - 110
Chromium	97.2	96.0	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Lead	95.7	95.4	P/P	90 - 110
Nickel	102	103	P/P	90 - 110
Selenium	97.1	97.2	P/P	90 - 110
Silver	94.2	94.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A98157

Included Lab Sample IDs: 2162440

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

Reference Method: EPA 8321B

Run ID: A98160

Included Lab Sample IDs: 2162489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	99.8	97.1	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98172

Included Lab Sample IDs: 2162490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	91.0	91.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A98174

Included Lab Sample IDs: 2162439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	99.6	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A98174

Included Lab Sample IDs: 2162439

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A98182

Included Lab Sample IDs: 2162440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.7	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A98186

Included Lab Sample IDs: 2162440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.1	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98197

Included Lab Sample IDs: 2162490

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	90.9	91.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98214

Included Lab Sample IDs: 2162489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	78.3	85.5	P/P	50 - 150
Acetaminophen	106	111	P/P	60 - 160
Acetamiprid	93.1	103	P/P	50 - 150
Afidopyropen	108	116	P/P	50 - 150
Bentazon	99.5	122	P/P	50 - 160
Benzovindiflupyr	108	112	P/P	50 - 150
Carbamazepine	95.2	107	P/P	60 - 150
Clothianidin	85.4	123	P/P	60 - 150
Dinotefuran	78.9	96.7	P/P	50 - 150
Diuron	112	99.2	P/P	60 - 150
Fenuron	109	107	P/P	60 - 150
Fluridone	97.3	99.0	P/P	60 - 160
Hydrocodone	107	106	P/P	60 - 150
Ibuprofen	82.9	81.4	P/P	50 - 160
Imazapyr	110	119	P/P	50 - 150
Imidacloprid	105	106	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A98214

Included Lab Sample IDs: 2162489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	102	109	P/P	60 - 150
Mandestrobin	95.6	93.0	P/P	50 - 150
MCPP	80.7	74.0	P/P	50 - 150
Naproxen	128	101	P/P	50 - 160
Primidone	101	98.2	P/P	60 - 150
Pyraclostrobin	108	102	P/P	60 - 150
Thiamethoxam	106	110	P/P	50 - 150
Tolfenpyrad	111	116	P/P	60 - 150
Triclopyr	111	104	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A98288

Included Lab Sample IDs: 2162491

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.5		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	99.5		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	99.5		P	80 - 120
Azinphos Methyl	93.9		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	95.8		P	80 - 120
Carbophenothion	98.1		P	80 - 120
Chlorpyrifos Ethyl	97.7		P	80 - 120
Chlorpyrifos Methyl	95.0		P	80 - 120
Cyanazine	94.9		P	80 - 120
Demeton	99.8		P	80 - 120
Diazinon	100		P	80 - 120
Dimethenamid	99.5		P	80 - 120
Disulfoton	96.9		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	98.7		P	80 - 120
Ethion	94.0		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	96.4		P	80 - 120
Fipronil	99.9		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	98.1		P	80 - 120
Fipronil Sulfone	96.1		P	80 - 120
Flumioxazin	89.7		P	80 - 120
Fonofos	98.8		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	98.4		P	80 - 120
Malathion	98.4		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	96.9		P	80 - 120
Metribuzin	96.9		P	80 - 120
Mevinphos	105		P	80 - 120
Molinate	100		P	80 - 120
Naled	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A98288

Included Lab Sample IDs: 2162491

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	103		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	95.8		P	80 - 120
Parathion Methyl	95.9		P	80 - 120
Pendimethalin	95.4		P	80 - 120
Phorate	98.2		P	80 - 120
Prodiamine	95.6		P	80 - 120
Prometon	97.8		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	96.9		P	80 - 120
Propiconazole	100		P	80 - 120
Simazine	96.5		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	112		P	80 - 120
Terbufos	101		P	80 - 120
Terbutylazine	98.9		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							3.17	
EPA 200.7 Rev. 4.4	Barium	101		102	103	103			0.0822
	Calcium	98.4		99.0	100	100			0.0701
	Iron	99.4		103	102	104			1.58
	Magnesium	100		101	104	104			0.531
	Potassium	96.2		94.4	96.1	97.6			1.44
	Sodium	94.8		97.0	93.6	92.6			0.652
	Zinc	102		103	105	105			0.304
EPA 200.8 Rev. 5.4	Aluminum	96.6		93.0	91.8	97.4			0.917
	Antimony	90.0		89.4	90.0	90.3			0.674
	Arsenic	98.1		97.4	97.5	99.9			0.0432
	Boron	97.3		94.9	95.6	95.8			0.713
	Cadmium	95.3		96.9	96.5	97.1			0.429
	Chromium	97.2		95.8	96.5	98.8			0.725
	Copper	101		102	101	105			0.949
	Lead	92.6		93.1	92.4	94.0			0.773
	Nickel	99.0		99.9	99.9	104			0.0115
	Selenium	96.7		96.4	94.5	100			2.05
	Silver	97.5		95.5	95.5	97.6			0.0103
	Thallium	97.0		95.6	97.6	105			2.04
EPA 300.0 Rev. 2.1	Chloride	98.8		98.6	97.6			0.107	
	Sulfate	98.6		99.5	98.5			0.135	
EPA 350.1 Rev. 2.0	Ammonia-N	102		97.0	102				2.79
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.3		96.2	91.0				4.26
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.9	97.9				0.948
EPA 365.1 Rev. 2.0	Total-P	100		109	105				3.19
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104		101	99.5				1.13
EPA 8270E	Acetochlor	95.2	96.7	89.1	87.1		1.54		2.26
	Alachlor	92.4	96.7	86.7	88.5		4.60		2.09
	Ametryn	102	101	115	91.0		1.64		12.1
	Atrazine	99.5	104				4.77		5.09
	Atrazine Desethyl	85.8	89.4				4.16		1.75
	Azinphos Methyl	123	118	130	127		4.13		1.62
	Bromacil	53.3	58.1	75.5	77.8		8.68		2.08
	Butylate	56.7	69.4	70.9	79.6		20.2		11.6
	Carbophenothion	86.6	94.1	76.0	73.2		8.31		3.73
	Chlorpyrifos Ethyl	93.0	97.6	104	84.2		4.82		21.4
	Chlorpyrifos Methyl	99.4	105	94.6	91.1		4.97		3.79
	Cyanazine	122	117	103	81.8		4.57		22.9
	Demeton	74.1	98.2	116	114		28.0		1.91
	Diazinon	98.4	101	97.9	96.7		2.35		1.13
	Dimethenamid	92.9	97.3	107	81.4		4.67		27.0
	Disulfoton	71.9	95.4	78.3	64.1		28.1		19.9
	Dithiopyr	85.8	91.1	77.0	71.6		6.01		5.80
	EPTC	47.4	70.9	75.2	79.7		39.7		5.83
	Ethion	62.7	66.5	87.0	25.5		5.78		109
	Ethoprop	111	110	123	125		1.38		1.75
	Fenamiphos	80.4	97.1	68.8	74.2		18.7		7.64
	Fipronil	93.4	98.3	84.2	75.3		5.13		8.76
	Fipronil Desulfanyl	99.5	102	84.8	79.2		2.84		5.29
	Fipronil Sulfide	86.5	93.9	77.1	66.8		8.28		6.68
	Fipronil Sulfone	69.9	74.5	60.9	52.9		6.39		3.18
	Flumioxazin	115	127	206	144		10.2		35.1
	Fonofos	93.0	97.6	102	97.7		4.86		4.30

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Hexazinone	96.5	104	97.4	106	7.62	8.73
	Imazalil	90.5	88.4	79.8	76.3	2.43	4.50
	Malathion	114	117	116	112	2.00	3.49
	Metalaxyl	95.8	98.3	87.7	89.7	2.53	2.19
	Metolachlor	85.5	87.8	79.5	76.3	2.72	4.15
	Metribuzin	111	124	113	98.2	11.5	14.1
	Mevinphos	111	101	131	105	9.01	21.6
	Molinate	68.7	81.7	86.7	85.4	17.4	1.55
	Naled	41.6	60.6	106	102	37.3	3.92
	Norflurazon	90.9	97.6	78.8	74.6	7.12	5.45
	Oxadiazon	86.5	91.0	71.9	61.5	5.08	8.07
	Parathion Ethyl	37.4	101	100	98.3	91.9	1.98
	Parathion Methyl	46.3	111	132	133	82.3	0.656
	Pendimethalin	20.2	88.8	90.6	87.0	126	4.06
	Phorate	90.6	99.5	106	103	9.41	2.41
	Prodiamine	6.82	69.6	51.5	36.9	164	33.1
	Prometon	97.9	96.4	87.1	82.9	1.60	4.06
	Prometryn	99.0	99.8	92.7	87.9	0.817	5.31
	Pronamide	101	105	106	106	4.29	0.338
	Propiconazole	84.0	87.7	73.2	64.4	4.30	6.16
	Simazine	113	114			0.825	1.97
	Sulfentrazone	13.1	14.5	64.3	47.0	9.68	6.50
	Tebuconazole	37.7	39.8	27.1	14.1	5.31	63.0
	Terbufos	93.2	103	110	109	9.55	1.10
	Terbutylazine	96.5	98.1	98.9	100	1.63	1.52
EPA 8321B	2,4-D	123		122	127		3.53
	Acesulfame K	112		22.4	21.9		2.32
	Acetaminophen	98.1		100	94.5		5.85
	Acetamiprid	109		111	85.2		26.5
	Afidopyropen	109		98.4	107		8.59
	AMPA	111		88.9	87.7		0.809
	Bentazon	81.3		73.8	68.0		8.10
	Benzovindiflupyr	88.2		89.8	79.1		12.7
	Carbamazepine	108		82.4	99.8		19.0
	Clothianidin	101		103	105		2.48
	Dinotefuran	105		121	107		12.1
	Diuron	87.3		95.1	80.7		16.3
	Endothall	89.9		126	102		21.7
	Fenuron	106		102	92.9		9.50
	Fluridone	80.5		85.2	85.7		0.552
	Glufosinate	115		103	100		3.17
	Glyphosate	118		71.1	83.7		5.63
	Hydrocodone	91.6		98.7	93.5		5.40
	Ibuprofen	89.2		84.8	80.0		5.81
	Imazapyr	105		121	107		13.0
	Imidacloprid	118		151	148		2.34
	Linuron	82.7		84.3	70.2		18.2
	Mandestrobin	85.7		85.0	77.3		9.53
	MCPP	120		122	118		2.84
	Naproxen	87.3		82.9	80.7		2.71
	Primidone	103		110	98.1		11.4
	Pyraclostrobin	85.4		83.7	83.7		0.0311
	Sucralose	94.9		73.4	47.3		27.9
	Thiamethoxam	113		144	136		5.80

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Tolfenpyrad	58.2	58.2	54.1			7.33
	Triclopyr	123	125	139			10.8
SM 2120 B-2011	Color (true)	99.4				0.143	
SM 2320 B-2011	Total Alkalinity	102				0.283	
SM 2540 C-2011	TDS					2.52	
SM 4500 F-C-2011	Fluoride	101	110	110			0.0
SM 5310 B-2011	Organic Carbon	103	100	104			1.76

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2162439
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2162490
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2162490
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2162439
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2162439
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2162440
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2162440
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2162440
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2162440
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2162441
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2162491
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2162489
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2162489
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2162439
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2162439
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2162490
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2162439
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2162439
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2162439
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2162440

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	03/05/2020			03/05/2020 16:10	Yen Ta	2162439
EPA 200.7 Rev. 4.4	03/05/2020	03/09/2020 17:00	Elliott D. Healy	03/10/2020 15:11	Vijayalakshmi Reddy	2162490
EPA 200.8 Rev. 5.4	03/05/2020	03/09/2020 17:00	Elliott D. Healy	03/11/2020 23:59	Alexander Thompson	2162490
	03/05/2020	03/09/2020 17:00	Elliott D. Healy	03/12/2020 21:21	Alexander Thompson	2162490
	03/05/2020	03/09/2020 17:00	Elliott D. Healy	03/13/2020 16:16	Justin Cutchin	2162490
EPA 300.0 Rev. 2.1	03/05/2020			03/10/2020 21:52	Lipi Saha	2162439
EPA 350.1 Rev. 2.0	03/05/2020			03/11/2020 13:50	Ping Hua	2162440
EPA 351.2 Rev. 2.0	03/05/2020	03/09/2020 14:25	Sima Feizi	03/11/2020 11:55	Jhamieka S. Greenwood	2162440
EPA 353.2 Rev. 2.0	03/05/2020			03/12/2020 13:25	Beverly Y. Sanders	2162440
EPA 365.1 Rev. 2.0	03/05/2020	03/10/2020 13:53	Yen Ta	03/12/2020 14:10	Benjamin T. Nordmann	2162440
EPA 365.1 Rev. 2.0 dissolved	03/05/2020			03/05/2020 16:58	Carlos Miranda	2162441
EPA 8270E	03/05/2020	03/10/2020 09:00	Julie Wi	03/12/2020 17:52	Vandana T. Nagar	2162491
EPA 8321B	03/05/2020	03/06/2020 13:00	Rebecca Ware	03/06/2020 20:23	Rebecca Ware	2162489
	03/05/2020	03/06/2020 13:00	Rebecca Ware	03/09/2020 14:46	Rebecca Ware	2162489
	03/05/2020	03/06/2020 13:00	Rebecca Ware	03/11/2020 21:25	Rebecca Ware	2162489
	03/05/2020	03/09/2020 09:00	Hoor Shaik	03/14/2020 05:09	Juyoung Kim	2162489
SM 2120 B-2011	03/05/2020			03/05/2020 16:50	Madeline Gruver	2162439
SM 2320 B-2011	03/05/2020			03/12/2020 10:59	Dale L. Simmons	2162439
SM 2340B	03/05/2020			03/10/2020 15:11	Vijayalakshmi Reddy	2162490
SM 2540 C-2011	03/05/2020			03/09/2020 15:13	Yijie Li	2162439
SM 2540 D-2011	03/05/2020			03/09/2020 15:13	Yijie Li	2162439
SM 4500 F-C-2011	03/05/2020			03/12/2020 10:59	Dale L. Simmons	2162439
SM 5310 B-2011	03/05/2020			03/10/2020 01:19	Lauren Lees	2162440