

Chemical Analysis Report

SW-DIST-2020-03-12-01

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

Event Description: **SCIs**
Request ID: **RQ-2020-03-09-17**
Customer: **SW-DIST**
Project ID: **SMP**

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Temple Terrace, FL 33637-0926
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Certified by: Colin Wright, Program Administrator

Date Certified: 30-MAR-2020 10:47

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Peace River @ the Sandy Run

Collection Date/Time: 03/11/2020 12:45

Field ID: G3SW0090

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2164724	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P380571	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P380935	
		Sulfate	74		mg SO4/L	P380937	
	SM 2120 B-2011	Color (true)	56		PCU	P380579	
	SM 2320 B-2011	Total Alkalinity	107		mg CaCO3/L	P381067	
	SM 2540 C-2011	TDS	270	A	mg/L	P381120	
	SM 2540 D-2011	TSS	4	I	mg/L	P381186	
2164725	SM 4500 F-C-2011	Fluoride	0.85		mg F/L	P381263	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P381039	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P380772	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.75		mg N/L	P381198	
	EPA 365.1 Rev. 2.0	Total-P	0.98		mg P/L	P381142	
2164726	SM 5310 B-2011	Organic Carbon	12		mg C/L	P380752	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.86		mg P/L	P380568	
2164730	EPA 8321B	2,4-D	0.011		ug/L	P380689	
		Acesulfame K**	0.10	U	ug/L	P380621	
		AMPA**	0.46		ug/L	P380621	
		Sucralose**	4.2		ug/L	P380621	
		Acetaminophen**	0.0080	U	ug/L	P380689	
		Acetamiprid**	0.0020	U	ug/L	P380689	
		Endothall**	0.25	U	ug/L	P380621	
		Glufosinate**	0.10	U	ug/L	P380621	
		Glyphosate**	0.51		ug/L	P380621	
		Afidopyropen**	0.0020	UJ	ug/L	P380689	
		Bentazon	0.0030	I	ug/L	P380689	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P380689	
		Carbamazepine**	0.0096		ug/L	P380689	
		Clothianidin**	0.041		ug/L	P380689	
		Dinotefuran**	0.0086		ug/L	P380689	
		Diuron	0.0024	I	ug/L	P380689	
		Fenuron	0.016	U	ug/L	P380689	
		Fluridone**	0.0021	I	ug/L	P380689	
		Imazapyr**	0.066		ug/L	P380689	
		Hydrocodone**	0.0020	U	ug/L	P380689	
		Ibuprofen**	0.020	U	ug/L	P380689	
		Imidacloprid	0.089		ug/L	P380689	
		Linuron	0.0040	U	ug/L	P380689	
		Mandestrobin**	0.0020	UJ	ug/L	P380689	
		MCP	0.0020	U	ug/L	P380689	MS
		Naproxen**	0.0080	U	ug/L	P380689	
		Primidone**	0.025		ug/L	P380689	
		Pyraclostrobin**	0.0020	U	ug/L	P380689	
		Thiamethoxam**	0.094		ug/L	P380689	

Field ID: G3SW0090

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2164730	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P380689	
		Triclopyr**	0.0040	U	ug/L	P380689	
2164731	EPA 200.7 Rev. 4.4	Barium	11.1		ug/L	P380736	
		Calcium	38.2		mg/L	P380736	
		Iron	140		ug/L	P380736	
		Magnesium	16.4		mg/L	P380736	
		Potassium	6.6		mg/L	P380736	
		Sodium	33.2		mg/L	P380736	
		Zinc	5.0	U	ug/L	P380736	
		Aluminum	105		ug/L	P380736	
	EPA 200.8 Rev. 5.4	Antimony	0.19	I	ug/L	P380736	
		Arsenic	1.63		ug/L	P380736	
		Boron**	48.9		ug/L	P380736	
		Cadmium	0.033	I	ug/L	P380736	
		Chromium	0.52	I	ug/L	P380736	
		Copper	0.40	I	ug/L	P380736	
		Lead	0.20	U	ug/L	P380736	
		Nickel	0.97	I	ug/L	P380736	
		Selenium	0.32	I	ug/L	P380736	
		Silver	0.010	U	ug/L	P380736	
		Thallium	0.10	U	ug/L	P380736	
		Hardness	163		mg/L	P380736	
	SM 2340B						
2164732	EPA 8270E	Acetochlor	0.25	U	ng/L	P380780	
		Alachlor	0.25	U	ng/L	P380780	
		Ametryn	0.59	U	ng/L	P380780	
		Atrazine	3.9		ng/L	P380780	
		Atrazine Desethyl	1.9	I	ng/L	P380780	
		Azinphos Methyl	2.0	U	ng/L	P380780	
		Bromacil	77		ng/L	P380780	
		Butylate	0.39	U	ng/L	P380780	
		Carbophenothion	0.49	U	ng/L	P380780	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P380780	
		Chlorpyrifos Methyl	0.049	U	ng/L	P380780	
		Cyanazine	3.2	U	ng/L	P380780	RPD
		Demeton	1.5	U	ng/L	P380780	
		Diazinon	0.12	U	ng/L	P380780	
		Dimethenamid**	0.098	U	ng/L	P380780	MS, RPD
		Disulfoton	0.49	U	ng/L	P380780	
		Dithiopyr**	0.13	I	ng/L	P380780	MS
		EPTC	1.2	UJ	ng/L	P380780	RPD
		Ethion	0.15	UJ	ng/L	P380780	LCS, MS, RPD
		Ethoprop	0.098	U	ng/L	P380780	
		Fenamiphos	0.49	U	ng/L	P380780	
		Fipronil	0.25	U	ng/L	P380780	

Field ID: G3SW0090

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2164732	EPA 8270E	Fipronil Desulfinyl**	0.12	U	ng/L	P380780	
		Fipronil Sulfide	0.15	U	ng/L	P380780	
		Fipronil Sulfone	0.15	U	ng/L	P380780	
		Flumioxazin**	1.7	UJ	ng/L	P380780	RPD
		Fonofos	0.20	U	ng/L	P380780	
		Hexazinone	0.49	U	ng/L	P380780	
		Imazalil**	0.74	U	ng/L	P380780	
		Malathion	0.34	U	ng/L	P380780	
		Metalaxyl	4.1		ng/L	P380780	
		Metolachlor	0.49	U	ng/L	P380780	
		Metribuzin	3.2	U	ng/L	P380780	
		Mevinphos	0.49	U	ng/L	P380780	
		Molinate	0.29	U	ng/L	P380780	
		Naled**	1.5	U	ng/L	P380780	
		Norflurazon	84		ng/L	P380780	
		Oxadiazon**	0.098	U	ng/L	P380780	
		Parathion Ethyl	0.25	U	ng/L	P380780	
		Parathion Methyl	0.54	U	ng/L	P380780	
		Pendimethalin	0.98	U	ng/L	P380780	
		Phorate	0.25	U	ng/L	P380780	
		Prodiamine**	0.17	U	ng/L	P380780	RPD
		Prometon	0.88	U	ng/L	P380780	
		Prometryn	0.20	U	ng/L	P380780	
		Pronamide**	0.15	U	ng/L	P380780	
		Propiconazole**	0.49	U	ng/L	P380780	
		Simazine	1.9	I	ng/L	P380780	
		Sulfentrazone**	0.50	I	ng/L	P380780	
		Tebuconazole**	0.49	U	ng/L	P380780	MS, RPD
		Terbufos	0.098	U	ng/L	P380780	
		Terbutylazine	0.42	U	ng/L	P380780	

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: P380571

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380736

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: P380736

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: P380935

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380937

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381039

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: P380772

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P381198

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P381142

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P380568

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

Reference Method: EPA 8270E
 Batch ID: P380780

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: P380780

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: P380621

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: P380689

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: P380689

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: P380579

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P381067

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

Reference Method: SM 2540 C-2011
Batch ID: P381120

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P381186

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P381263

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P380752

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: P380736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	101		P	85 - 115
Sodium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.5		P	85 - 115
Antimony	98.4		P	85 - 115
Arsenic	97.5		P	85 - 115
Boron	95.6		P	85 - 115
Cadmium	96.5		P	85 - 115
Chromium	100		P	85 - 115
Copper	96.5		P	85 - 115
Lead	92.7		P	85 - 115
Nickel	95.5		P	85 - 115
Selenium	96.7		P	85 - 115
Silver	98.1		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380935

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380937

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381039

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380772

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P381198

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P381142

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P380568

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.3		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P380780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	89.1	86.4	P/P	71 - 122
Alachlor	89.4	84.8	P/P	70 - 121
Ametryn	98.8	95.2	P/P	49 - 137
Atrazine	113	104	P/P	76 - 125
Atrazine Desethyl	82.1	80.0	P/P	31 - 144
Azinphos Methyl	112	89.9	P/P	67 - 150
Bromacil	92.9	86.2	P/P	36 - 121
Butylate	59.0	71.7	P/P	33 - 88.0
Carbophenothion	84.3	82.6	P/P	50 - 150
Chlorpyrifos Ethyl	92.2	87.7	P/P	73 - 117
Chlorpyrifos Methyl	96.5	92.4	P/P	68 - 121
Cyanazine	106	103	P/P	20 - 250
Demeton	89.5	93.1	P/P	30 - 123
Diazinon	93.1	89.9	P/P	70 - 128
Dimethenamid	80.8	83.5	P/P	66 - 122
Disulfoton	91.6	90.7	P/P	46 - 124
Dithiopyr	80.8	78.7	P/P	69 - 122
EPTC	51.2	70.2	P/P	31 - 90.0
Ethion	17.1	32.6	F/F	45 - 135
Ethoprop	98.2	93.6	P/P	59 - 118
Fenamiphos	77.8	84.8	P/P	30 - 136
Fipronil	84.2	86.0	P/P	57 - 127
Fipronil Desulfinyl	86.2	87.8	P/P	51 - 122
Fipronil Sulfide	82.2	80.0	P/P	57 - 119
Fipronil Sulfone	75.6	71.7	P/P	51 - 119
Flumioxazin	79.7	168	P/P	70 - 200
Fonofos	97.5	93.9	P/P	60 - 120
Hexazinone	95.9	92.8	P/P	57 - 142
Imazalil	93.2	86.9	P/P	50 - 150
Malathion	109	106	P/P	67 - 128
Metaxyl	91.2	85.9	P/P	21 - 148
Metolachlor	79.6	76.4	P/P	70 - 120
Metribuzin	125	119	P/P	20 - 253
Mevinphos	115	100	P/P	47 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P380780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	74.2	75.7	P/P	41 - 99.0
Naled	49.4	58.0	P/P	40 - 130
Norflurazon	81.3	78.8	P/P	54 - 127
Oxadiazon	82.0	79.9	P/P	65 - 122
Parathion Ethyl	97.3	91.5	P/P	71 - 113
Parathion Methyl	110	106	P/P	73 - 129
Pendimethalin	85.0	77.6	P/P	63 - 130
Phorate	101	95.9	P/P	48 - 118
Prodiamine	50.0	57.3	P/P	20 - 144
Prometon	95.6	89.3	P/P	53 - 120
Prometryn	96.5	93.1	P/P	63 - 119
Pronamide	97.4	98.8	P/P	50 - 150
Propiconazole	76.8	73.4	P/P	50 - 150
Simazine	108	106	P/P	77 - 129
Sulfentrazone	63.7	57.4	P/P	50 - 150
Tebuconazole	32.9	41.8	P/P	20 - 118
Terbufos	104	98.3	P/P	61 - 119
Terbutylazine	95.2	90.7	P/P	75 - 119

Reference Method: EPA 8321B
Batch ID: P380621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.0		P	40 - 150
AMPA	92.0		P	40 - 150
Endothall	126		P	40 - 150
Glufosinate	124		P	40 - 150
Glyphosate	92.8		P	40 - 140
Sucralose	103		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P380689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	147		P	30 - 160
Acetaminophen	101		P	30 - 160
Acetamiprid	91.4		P	30 - 160
Afidopyrophen	98.9		P	30 - 160
Bentazon	98.6		P	30 - 160
Benzovindiflupyr	88.9		P	30 - 160
Carbamazepine	124		P	30 - 160
Clothianidin	95.1		P	30 - 160
Dinotefuran	95.3		P	30 - 160
Diuron	96.5		P	30 - 160
Fenuron	96.2		P	30 - 160
Fluridone	101		P	30 - 160
Hydrocodone	106		P	30 - 160
Ibuprofen	93.3		P	30 - 160
Imazapyr	120		P	30 - 160
Imidacloprid	107		P	30 - 160
Linuron	87.3		P	30 - 160
Mandestrobin	95.3		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P380689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCP	157		P	30 - 160
Naproxen	107		P	30 - 160
Primidone	93.2		P	30 - 160
Pyraclostrobin	94.2		P	30 - 160
Thiamethoxam	108		P	30 - 160
Tolfenpyrad	65.7		P	30 - 160
Triclopyr	111		P	30 - 160

Reference Method: SM 2120 B-2011

Batch ID: P380579

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.6		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P381067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P381263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.7		P	92 - 103

Reference Method: SM 5310 B-2011

Batch ID: P380752

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164511	Barium	99.1	100	P/P	80 - 120
2164511	Calcium	101		P	80 - 120
2164511	Iron	104	103	P/P	80 - 120
2164511	Magnesium	102	101	P/P	80 - 120
2164511	Potassium	101	101	P/P	80 - 120
2164511	Sodium	100	105	P/P	80 - 120
2164511	Zinc	100	101	P/P	80 - 120
2164731	Barium	102		P	80 - 120
2164731	Calcium	102		P	80 - 120
2164731	Iron	104		P	80 - 120
2164731	Magnesium	99.2		P	80 - 120
2164731	Potassium	101		P	80 - 120
2164731	Sodium	99.4		P	80 - 120
2164731	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164511	Aluminum	96.3	95.5	P/P	80 - 120
2164511	Antimony	100	101	P/P	80 - 120
2164511	Arsenic	97.2	98.7	P/P	80 - 120
2164511	Boron	95.5	96.4	P/P	80 - 120
2164511	Cadmium	102	101	P/P	80 - 120
2164511	Chromium	98.4	99.0	P/P	80 - 120
2164511	Copper	95.4	97.0	P/P	80 - 120
2164511	Lead	92.5	93.2	P/P	80 - 120
2164511	Nickel	95.6	96.1	P/P	80 - 120
2164511	Selenium	92.1	95.6	P/P	80 - 120
2164511	Silver	99.1	99.2	P/P	80 - 120
2164511	Thallium	106	108	P/P	80 - 120
2164731	Aluminum	95.9		P	80 - 120
2164731	Antimony	103		P	80 - 120
2164731	Arsenic	105		P	80 - 120
2164731	Boron	101		P	80 - 120
2164731	Cadmium	99.4		P	80 - 120
2164731	Chromium	104		P	80 - 120
2164731	Copper	98.6		P	80 - 120
2164731	Lead	96.3		P	80 - 120
2164731	Nickel	97.1		P	80 - 120
2164731	Selenium	100		P	80 - 120
2164731	Silver	96.9		P	80 - 120
2164731	Thallium	109		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164634	Chloride	97.3		P	90 - 110
2164788	Chloride	98.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164634	Sulfate	96.8		P	90 - 110
2164788	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164815	Ammonia-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164812	Kjeldahl Nitrogen	90.1	92.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381198

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164677	NO2NO3-N	100	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164681	Total-P	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164678	O-Phosphate-P	94.6	98.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P380780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161812	Acetochlor	80.8	82.3	P/P	68 - 126
2161812	Alachlor	77.1	76.7	P/P	66 - 125
2161812	Ametryn	81.0	85.1	P/P	31 - 182
2161812	Atrazine	101	103	P/P	68 - 137
2161812	Atrazine Desethyl	60.5	55.0	P/P	13 - 161
2161812	Azinphos Methyl	110	96.4	P/P	54 - 162
2161812	Butylate	64.8	84.3	P/P	16 - 92.0
2161812	Carbophenothion	53.7	59.8	P/P	50 - 150
2161812	Chlorpyrifos Ethyl	84.7	85.9	P/P	63 - 124
2161812	Chlorpyrifos Methyl	83.3	81.6	P/P	64 - 125
2161812	Cyanazine	72.6	35.2	P/P	13 - 245
2161812	Demeton	98.5	105	P/P	20 - 154
2161812	Diazinon	86.1	88.1	P/P	66 - 141
2161812	Dimethenamid	62.0	32.0	P/F	50 - 130
2161812	Disulfoton	80.1	68.4	P/P	55 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P380780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161812	Dithiopyr	61.6	68.5	F/P	66 - 122
2161812	EPTC	55.2	80.4	P/P	15 - 93.0
2161812	Ethion	13.0	5.67	F/F	15 - 148
2161812	Ethoprop	114	118	P/P	59 - 126
2161812	Fenamiphos	91.8	80.6	P/P	39 - 137
2161812	Fipronil	70.8	70.1	P/P	47 - 131
2161812	Fipronil Desulfinyl	72.4	70.9	P/P	43 - 121
2161812	Fipronil Sulfide	70.4	69.8	P/P	29 - 134
2161812	Fipronil Sulfone	60.7	60.7	P/P	19 - 131
2161812	Flumioxazin	114	96.7	P/P	70 - 200
2161812	Fonofos	86.8	90.7	P/P	62 - 128
2161812	Hexazinone	88.1	96.7	P/P	58 - 154
2161812	Imazalil	69.2	79.1	P/P	50 - 150
2161812	Malathion	90.6	96.6	P/P	54 - 135
2161812	Metolachlor	68.8	65.6	P/P	62 - 126
2161812	Metribuzin	103	102	P/P	44 - 277
2161812	Mevinphos	120	125	P/P	44 - 135
2161812	Molinate	68.9	86.0	P/P	31 - 104
2161812	Naled	54.9	59.7	P/P	40 - 130
2161812	Oxadiazon	63.6	64.0	P/P	55 - 123
2161812	Parathion Ethyl	88.6	95.8	P/P	67 - 120
2161812	Parathion Methyl	107	119	P/P	70 - 140
2161812	Pendimethalin	77.9	86.6	P/P	59 - 145
2161812	Phorate	94.6	95.8	P/P	52 - 127
2161812	Prodiamine	29.5	58.1	P/P	11 - 157
2161812	Prometon	82.2	86.9	P/P	55 - 130
2161812	Prometryn	80.8	85.3	P/P	55 - 127
2161812	Pronamide	92.9	92.6	P/P	50 - 150
2161812	Propiconazole	54.2	50.9	P/P	50 - 150
2161812	Simazine	108	101	P/P	58 - 159
2161812	Sulfentrazone	55.2	55.1	P/P	50 - 150
2161812	Tebuconazole	8.44	5.49	F/F	10 - 122
2161812	Terbufos	98.4	99.1	P/P	65 - 131
2161812	Terbutylazine	86.6	89.0	P/P	63 - 131

Reference Method: EPA 8321B
Batch ID: P380621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164419	Acesulfame K	86.4	86.2	P/P	40 - 150
2164419	AMPA	109	111	P/P	40 - 150
2164419	Endothall	142	144	P/P	40 - 150
2164419	Glufosinate	108	117	P/P	40 - 150
2164419	Glyphosate	73.4	78.7	P/P	40 - 140
2164419	Sucralose	114	106	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P380689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164417	2,4-D	132	151	P/P	30 - 160
2164417	Acetaminophen	92.0	94.0	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P380689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164417	Acetamiprid	95.0	93.7	P/P	30 - 160
2164417	Afidopyropen	92.8	94.5	P/P	30 - 160
2164417	Bentazon	76.3	87.3	P/P	30 - 160
2164417	Benzovindiflupyr	73.1	79.9	P/P	30 - 160
2164417	Carbamazepine	101	101	P/P	30 - 160
2164417	Clothianidin	95.8	105	P/P	30 - 160
2164417	Dinotefuran	114	117	P/P	30 - 160
2164417	Diuron	80.0	84.4	P/P	30 - 160
2164417	Fenuron	85.3	85.1	P/P	30 - 160
2164417	Fluridone	86.2	88.2	P/P	30 - 160
2164417	Hydrocodone	105	107	P/P	30 - 160
2164417	Ibuprofen	81.6	71.3	P/P	30 - 160
2164417	Imazapyr	126	91.1	P/P	30 - 160
2164417	Imidacloprid	158	147	P/P	30 - 160
2164417	Linuron	74.3	74.6	P/P	30 - 160
2164417	Mandestrobin	79.4	82.0	P/P	30 - 160
2164417	MCP	153	160	P/F	30 - 160
2164417	Naproxen	91.7	96.2	P/P	30 - 160
2164417	Primidone	92.4	96.9	P/P	30 - 160
2164417	Pyraclostrobin	78.3	83.5	P/P	30 - 160
2164417	Thiamethoxam	134	129	P/P	30 - 160
2164417	Tolfenpyrad	55.6	55.9	P/P	30 - 160
2164417	Triclopyr	132	105	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P381263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164633	Fluoride	101	101	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P380752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2164807	Organic Carbon	98.7	99.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164635	Turbidity	5.91	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P380736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164511	Barium	1.12	Spike	P	0 - 20
2164511	Calcium	4.08	Spike	P	0 - 20
2164511	Iron	0.779	Spike	P	0 - 20
2164511	Magnesium	0.909	Spike	P	0 - 20
2164511	Potassium	0.400	Spike	P	0 - 20
2164511	Sodium	3.23	Spike	P	0 - 20
2164511	Zinc	0.775	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164511	Aluminum	0.848	Spike	P	0 - 20
2164511	Antimony	0.764	Spike	P	0 - 20
2164511	Arsenic	1.46	Spike	P	0 - 20
2164511	Boron	0.905	Spike	P	0 - 20
2164511	Cadmium	1.63	Spike	P	0 - 20
2164511	Chromium	0.552	Spike	P	0 - 20
2164511	Copper	1.68	Spike	P	0 - 20
2164511	Lead	0.724	Spike	P	0 - 20
2164511	Nickel	0.474	Spike	P	0 - 20
2164511	Selenium	3.62	Spike	P	0 - 20
2164511	Silver	0.0635	Spike	P	0 - 20
2164511	Thallium	1.39	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164634	Chloride	0.0148	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164634	Sulfate	0.241	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P381039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164815	Ammonia-N	0.429	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164812	Kjeldahl Nitrogen	1.80	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P381198

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164677	NO2NO3-N	0.421	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P381142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164681	Total-P	0.387	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164678	O-Phosphate-P	2.82	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P380780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161812	Acetochlor	1.83	Spike	P	0 - 30
2161812	Alachlor	0.468	Spike	P	0 - 30
2161812	Ametryn	5.02	Spike	P	0 - 30
2161812	Atrazine	1.14	Spike	P	0 - 30
2161812	Atrazine Desethyl	9.62	Spike	P	0 - 30
2161812	Azinphos Methyl	12.9	Spike	P	0 - 30
2161812	Bromacil	14.9	Spike	P	0 - 30
2161812	Butylate	26.1	Spike	P	0 - 30
2161812	Carbophenothion	10.8	Spike	P	0 - 30
2161812	Chlorpyrifos Ethyl	1.44	Spike	P	0 - 30
2161812	Chlorpyrifos Methyl	1.99	Spike	P	0 - 30
2161812	Cyanazine	69.4	Spike	F	0 - 30
2161812	Demeton	6.52	Spike	P	0 - 30
2161812	Diazinon	2.24	Spike	P	0 - 30
2161812	Dimethenamid	63.8	Spike	F	0 - 30
2161812	Disulfoton	15.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161812	Dithiopyr	10.7	Spike	P	0 - 30
2161812	EPTC	37.2	Spike	F	0 - 30
2161812	Ethion	78.7	Spike	F	0 - 30
2161812	Ethoprop	3.83	Spike	P	0 - 30
2161812	Fenamiphos	13.0	Spike	P	0 - 30
2161812	Fipronil	1.04	Spike	P	0 - 30
2161812	Fipronil Desulfinyl	2.01	Spike	P	0 - 30
2161812	Fipronil Sulfide	0.834	Spike	P	0 - 30
2161812	Fipronil Sulfone	0.0371	Spike	P	0 - 30
2161812	Flumioxazin	16.4	Spike	P	0 - 30
2161812	Fonofos	4.43	Spike	P	0 - 30
2161812	Hexazinone	9.33	Spike	P	0 - 30
2161812	Imazalil	13.3	Spike	P	0 - 30
2161812	Malathion	6.37	Spike	P	0 - 30
2161812	Metalaxyl	5.48	Spike	P	0 - 30
2161812	Metolachlor	4.62	Spike	P	0 - 30
2161812	Metribuzin	0.955	Spike	P	0 - 30
2161812	Mevinphos	4.36	Spike	P	0 - 30
2161812	Molinate	22.1	Spike	P	0 - 30
2161812	Naled	8.39	Spike	P	0 - 30
2161812	Norflurazon	10.5	Spike	P	0 - 30
2161812	Oxadiazon	0.706	Spike	P	0 - 30
2161812	Parathion Ethyl	7.82	Spike	P	0 - 30
2161812	Parathion Methyl	11.1	Spike	P	0 - 30
2161812	Pendimethalin	10.5	Spike	P	0 - 30
2161812	Phorate	1.28	Spike	P	0 - 30
2161812	Prodiamine	65.3	Spike	F	0 - 30
2161812	Prometon	5.56	Spike	P	0 - 30
2161812	Prometryn	5.43	Spike	P	0 - 30
2161812	Pronamide	0.252	Spike	P	0 - 30
2161812	Propiconazole	6.20	Spike	P	0 - 30
2161812	Simazine	2.24	Spike	P	0 - 30
2161812	Sulfentrazone	0.151	Spike	P	0 - 30
2161812	Tebuconazole	42.4	Spike	F	0 - 30
2161812	Terbufos	0.780	Spike	P	0 - 30
2161812	Terbuthylazine	2.69	Spike	P	0 - 30
LFB	Acetochlor	3.15	LCS	P	0 - 30
LFB	Alachlor	5.26	LCS	P	0 - 30
LFB	Ametryn	3.69	LCS	P	0 - 30
LFB	Atrazine	7.96	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.55	LCS	P	0 - 30
LFB	Azinphos Methyl	22.3	LCS	P	0 - 30
LFB	Bromacil	7.57	LCS	P	0 - 30
LFB	Butylate	19.5	LCS	P	0 - 30
LFB	Carbophenothion	2.09	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.95	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.29	LCS	P	0 - 30
LFB	Cyanazine	3.04	LCS	P	0 - 30
LFB	Demeton	3.97	LCS	P	0 - 30
LFB	Diazinon	3.53	LCS	P	0 - 30
LFB	Dimethenamid	3.29	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P380780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Disulfoton	0.941	LCS	P	0 - 30
LFB	Dithiopyr	2.63	LCS	P	0 - 30
LFB	EPTC	31.2	LCS	F	0 - 30
LFB	Ethion	62.3	LCS	F	0 - 30
LFB	Ethoprop	4.77	LCS	P	0 - 30
LFB	Fenamiphos	8.62	LCS	P	0 - 30
LFB	Fipronil	2.15	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.86	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.75	LCS	P	0 - 30
LFB	Fipronil Sulfone	5.26	LCS	P	0 - 30
LFB	Flumioxazin	71.1	LCS	F	0 - 30
LFB	Fonofos	3.78	LCS	P	0 - 30
LFB	Hexazinone	3.29	LCS	P	0 - 30
LFB	Imazalil	7.04	LCS	P	0 - 30
LFB	Malathion	3.42	LCS	P	0 - 30
LFB	Metalaxyl	6.02	LCS	P	0 - 30
LFB	Metolachlor	4.13	LCS	P	0 - 30
LFB	Metribuzin	5.10	LCS	P	0 - 30
LFB	Mevinphos	13.2	LCS	P	0 - 30
LFB	Molinate	2.01	LCS	P	0 - 30
LFB	Naled	15.9	LCS	P	0 - 30
LFB	Norflurazon	3.14	LCS	P	0 - 30
LFB	Oxadiazon	2.64	LCS	P	0 - 30
LFB	Parathion Ethyl	6.10	LCS	P	0 - 30
LFB	Parathion Methyl	3.82	LCS	P	0 - 30
LFB	Pendimethalin	9.07	LCS	P	0 - 30
LFB	Phorate	5.00	LCS	P	0 - 30
LFB	Prodiamine	13.6	LCS	P	0 - 30
LFB	Prometon	6.88	LCS	P	0 - 30
LFB	Prometryn	3.59	LCS	P	0 - 30
LFB	Pronamide	1.38	LCS	P	0 - 30
LFB	Propiconazole	4.41	LCS	P	0 - 30
LFB	Simazine	2.30	LCS	P	0 - 30
LFB	Sulfentrazone	10.5	LCS	P	0 - 30
LFB	Tebuconazole	23.9	LCS	P	0 - 30
LFB	Terbufos	5.54	LCS	P	0 - 30
LFB	Terbutylazine	4.85	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P380621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164419	Acesulfame K	0.270	Spike	P	0 - 30
2164419	AMPA	1.33	Spike	P	0 - 30
2164419	Endothall	1.80	Spike	P	0 - 30
2164419	Glufosinate	7.37	Spike	P	0 - 30
2164419	Glyphosate	6.98	Spike	P	0 - 30
2164419	Sucralose	4.63	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P380689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164417	2,4-D	12.4	Spike	P	0 - 30
2164417	Acetaminophen	2.17	Spike	P	0 - 30
2164417	Acetamiprid	1.31	Spike	P	0 - 30
2164417	Afidopyropen	1.81	Spike	P	0 - 30
2164417	Bentazon	13.5	Spike	P	0 - 30
2164417	Benzovindiflupyr	8.91	Spike	P	0 - 30
2164417	Carbamazepine	0.397	Spike	P	0 - 30
2164417	Clothianidin	8.99	Spike	P	0 - 30
2164417	Dinotefuran	3.27	Spike	P	0 - 30
2164417	Diuron	4.85	Spike	P	0 - 30
2164417	Fenuron	0.243	Spike	P	0 - 30
2164417	Fluridone	1.93	Spike	P	0 - 30
2164417	Hydrocodone	1.75	Spike	P	0 - 30
2164417	Ibuprofen	13.5	Spike	P	0 - 30
2164417	Imazapyr	21.6	Spike	P	0 - 30
2164417	Imidacloprid	6.63	Spike	P	0 - 30
2164417	Linuron	0.384	Spike	P	0 - 30
2164417	Mandestrobin	3.32	Spike	P	0 - 30
2164417	MCPP	4.84	Spike	P	0 - 30
2164417	Naproxen	4.77	Spike	P	0 - 30
2164417	Primidone	4.75	Spike	P	0 - 30
2164417	Pyraclostrobin	6.34	Spike	P	0 - 30
2164417	Thiamethoxam	3.85	Spike	P	0 - 30
2164417	Tolfenpyrad	0.428	Spike	P	0 - 30
2164417	Triclopyr	23.2	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P380579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164676	Color (true)	5.20	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P381067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164633	Total Alkalinity	0.408	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P381120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164724	TDS	4.82	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P381263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164633	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P380752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2164807	Organic Carbon	0.989	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2164730
Field Sample ID: G3SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	125	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.5	P	30 - 160
EPA 8321B	Diuron-d6	77.7	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.3	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	93.0	P	30 - 160
EPA 8321B	Sucralose-d6	93.0	P	30 - 160

Lab Sample ID: 2164732
Field Sample ID: G3SW0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	119	P	72 - 135
EPA 8270E	Terbufos-d10	96.3	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A98165

Included Lab Sample IDs: 2164726

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	94.5	93.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A98166

Included Lab Sample IDs: 2164724

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

Reference Method: SM 2120 B-2011

Run ID: A98169

Included Lab Sample IDs: 2164724

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	101	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A98208

Included Lab Sample IDs: 2164730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	92.2	83.5	P/P	40 - 200
Glufosinate	116	118	P/P	40 - 200
Glyphosate	88.0	98.1	P/P	40 - 200

Reference Method: EPA 8321B

Run ID: A98210

Included Lab Sample IDs: 2164730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	85.3	86.7	P/P	60 - 160
Endothall	125	129	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A98229

Included Lab Sample IDs: 2164730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	113	110	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A98233

Included Lab Sample IDs: 2164725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.5	98.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98252

Included Lab Sample IDs: 2164731

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	105	104	P/P	90 - 110
Calcium	104	108	P/P	90 - 110
Magnesium	105	109	P/P	90 - 110
Potassium	98.1	101	P/P	90 - 110
Sodium	102	106	P/P	90 - 110
Zinc	102	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98256

Included Lab Sample IDs: 2164731

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	94.1	99.9	P/P	90 - 110
Antimony	94.4	92.3	P/P	90 - 110
Arsenic	95.1	93.7	P/P	90 - 110
Boron	93.5	98.9	P/P	90 - 110
Cadmium	95.8	94.2	P/P	90 - 110
Chromium	95.7	95.2	P/P	90 - 110
Copper	93.4	94.8	P/P	90 - 110
Lead	90.9	91.2	P/P	90 - 110
Nickel	93.3	95.3	P/P	90 - 110
Selenium	96.0	93.6	P/P	90 - 110
Silver	96.7	95.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98259

Included Lab Sample IDs: 2164724

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	100	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98280

Included Lab Sample IDs: 2164731

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	98.2	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A98300

Included Lab Sample IDs: 2164725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.6	94.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98320

Included Lab Sample IDs: 2164731

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A98320

Included Lab Sample IDs: 2164731

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A98337

Included Lab Sample IDs: 2164725

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

Reference Method: SM 2320 B-2011

Run ID: A98350

Included Lab Sample IDs: 2164724

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A98360

Included Lab Sample IDs: 2164732

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	98.3		P	80 - 120
Butylate	103		P	80 - 120
Carbophenothion	96.8		P	80 - 120
Chlorpyrifos Ethyl	96.9		P	80 - 120
Chlorpyrifos Methyl	96.8		P	80 - 120
Cyanazine	96.3		P	80 - 120
Demeton	96.6		P	80 - 120
Diazinon	99.2		P	80 - 120
Dimethenamid	103		P	80 - 120
Disulfoton	99.7		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	93.2		P	80 - 120
Ethion	97.1		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	98.3		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	98.8		P	80 - 120
Flumioxazin	93.9		P	80 - 120
Fonofos	98.4		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	100		P	80 - 120
Malathion	98.4		P	80 - 120
Metalaxyl	104		P	80 - 120
Metolachlor	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A98360
Included Lab Sample IDs: 2164732

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metribuzin	101		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	94.7		P	80 - 120
Naled	102		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	99.1		P	80 - 120
Parathion Methyl	99.2		P	80 - 120
Pendimethalin	99.7		P	80 - 120
Phorate	96.4		P	80 - 120
Prodiamine	99.7		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	102		P	80 - 120
Propiconazole	103		P	80 - 120
Simazine	100		P	80 - 120
Sulfentrazone	97.8		P	80 - 120
Tebuconazole	98.1		P	80 - 120
Terbufos	97.3		P	80 - 120
Terbutylazine	99.9		P	80 - 120

Reference Method: EPA 8321B
Run ID: A98394
Included Lab Sample IDs: 2164730

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.6	121	P/P	50 - 150
Acetaminophen	107	110	P/P	60 - 160
Acetamiprid	93.5	111	P/P	50 - 150
Afidopyropen	95.0	102	P/P	50 - 150
Bentazon	109	144	P/P	50 - 160
Benzovindiflupyr	104	101	P/P	50 - 150
Carbamazepine	114	120	P/P	60 - 150
Clothianidin	108	98.2	P/P	60 - 150
Dinotefuran	108	102	P/P	50 - 150
Diuron	113	118	P/P	60 - 150
Fenuron	103	104	P/P	60 - 150
Fluridone	98.3	99.2	P/P	60 - 160
Hydrocodone	112	101	P/P	60 - 150
Ibuprofen	92.5	115	P/P	50 - 160
Imazapyr	89.9	100	P/P	50 - 150
Imidacloprid	81.9	98.2	P/P	60 - 150
Linuron	107	115	P/P	60 - 150
Mandestrobin	104	108	P/P	50 - 150
MCPP	118	116	P/P	50 - 150
Naproxen	109	129	P/P	50 - 160
Primidone	98.3	82.9	P/P	60 - 150
Pyraclostrobin	104	109	P/P	60 - 150
Thiamethoxam	112	108	P/P	50 - 150
Tolfenpyrad	105	105	P/P	60 - 150
Triclopyr	113	113	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A98397
Included Lab Sample IDs: 2164732

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.9		P	80 - 120
Bromacil	100		P	80 - 120
Norflurazon	104		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A98398
Included Lab Sample IDs: 2164725

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98402
Included Lab Sample IDs: 2164725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A98428
Included Lab Sample IDs: 2164724

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.1	97.0	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							5.91	
EPA 200.7 Rev. 4.4	Barium	102		99.1	100	102			1.12
	Calcium	103		101	102				4.08
	Iron	106		104	104	103			0.779
	Magnesium	106		102	101	99.2			0.909
	Potassium	101		101	101	101			0.400
	Sodium	101		100	105	99.4			3.23
	Zinc	103		100	101	103			0.775
EPA 200.8 Rev. 5.4	Aluminum	94.5		96.3	95.5	95.9			0.848
	Antimony	98.4		103	100	101			0.764
	Arsenic	97.5		97.2	98.7	105			1.46
	Boron	95.6		95.5	96.4	101			0.905
	Cadmium	96.5		102	101	99.4			1.63
	Chromium	100		98.4	99.0	104			0.552
	Copper	96.5		95.4	97.0	98.6			1.68
	Lead	92.7		92.5	93.2	96.3			0.724
	Nickel	95.5		95.6	96.1	97.1			0.474
	Selenium	96.7		92.1	95.6	100			3.62
	Silver	98.1		99.1	99.2	96.9			0.0635
	Thallium	104		106	108	109			1.39
EPA 300.0 Rev. 2.1	Chloride	100		97.3	98.9			0.0148	
	Sulfate	100		96.8	100			0.241	
EPA 350.1 Rev. 2.0	Ammonia-N	101		98.5	99.0				0.429
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		90.1	92.1				1.80
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		100	99.6				0.421
EPA 365.1 Rev. 2.0	Total-P	105		108	108				0.387
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.3		94.6	98.7				2.82
EPA 8270E	Acetochlor	86.4	89.1	80.8	82.3		3.15		1.83
	Alachlor	84.8	89.4	77.1	76.7		5.26		0.468
	Ametryn	95.2	98.8	81.0	85.1		3.69		5.02
	Atrazine	104	113	101	103		7.96		1.14
	Atrazine Desethyl	80.0	82.1	55.0	60.5		2.55		9.62
	Azinphos Methyl	89.9	112	96.4	110		22.3		12.9
	Bromacil	86.2	92.9				7.57		14.9
	Butylate	71.7	59.0	84.3	64.8		19.5		26.1
	Carbophenothion	84.3	82.6	59.8	53.7		2.09		10.8
	Chlorpyrifos Ethyl	87.7	92.2	84.7	85.9		4.95		1.44
	Chlorpyrifos Methyl	92.4	96.5	83.3	81.6		4.29		1.99
	Cyanazine	103	106	72.6	35.2		3.04		69.4
	Demeton	93.1	89.5	98.5	105		3.97		6.52
	Diazinon	89.9	93.1	86.1	88.1		3.53		2.24
	Dimethenamid	83.5	80.8	62.0	32.0		3.29		63.8
	Disulfoton	90.7	91.6	80.1	68.4		0.941		15.7
	Dithiopyr	78.7	80.8	61.6	68.5		2.63		10.7
	EPTC	70.2	51.2	55.2	80.4		31.2		37.2
	Ethion	32.6	17.1	13.0	5.67		62.3		78.7
	Ethoprop	98.2	93.6	114	118		4.77		3.83
	Fenamiphos	84.8	77.8	91.8	80.6		8.62		13.0
	Fipronil	86.0	84.2	70.8	70.1		2.15		1.04
	Fipronil Desulfanyl	87.8	86.2	72.4	70.9		1.86		2.01
	Fipronil Sulfide	80.0	82.2	70.4	69.8		2.75		0.834
	Fipronil Sulfone	71.7	75.6	60.7	60.7		5.26		0.0371
	Flumioxazin	168	79.7	114	96.7		71.1		16.4
	Fonofos	93.9	97.5	86.8	90.7		3.78		4.43

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Hexazinone	92.8	95.9	88.1	96.7	3.29	9.33
	Imazalil	86.9	93.2	69.2	79.1	7.04	13.3
	Malathion	106	109	90.6	96.6	3.42	6.37
	Metalaxyl	85.9	91.2			6.02	5.48
	Metolachlor	76.4	79.6	68.8	65.6	4.13	4.62
	Metribuzin	119	125	103	102	5.10	0.955
	Mevinphos	100	115	120	125	13.2	4.36
	Molinate	75.7	74.2	68.9	86.0	2.01	22.1
	Naled	58.0	49.4	54.9	59.7	15.9	8.39
	Norflurazon	78.8	81.3			3.14	10.5
	Oxadiazon	79.9	82.0	63.6	64.0	2.64	0.706
	Parathion Ethyl	91.5	97.3	88.6	95.8	6.10	7.82
	Parathion Methyl	106	110	107	119	3.82	11.1
	Pendimethalin	77.6	85.0	77.9	86.6	9.07	10.5
	Phorate	95.9	101	94.6	95.8	5.00	1.28
	Prodiamine	57.3	50.0	29.5	58.1	13.6	65.3
	Prometon	89.3	95.6	82.2	86.9	6.88	5.56
	Prometryn	93.1	96.5	80.8	85.3	3.59	5.43
	Pronamide	98.8	97.4	92.9	92.6	1.38	0.252
	Propiconazole	73.4	76.8	54.2	50.9	4.41	6.20
	Simazine	106	108	108	101	2.30	2.24
	Sulfentrazone	57.4	63.7	55.1	55.2	10.5	0.151
	Tebuconazole	32.9	41.8	5.49	8.44	23.9	42.4
	Terbufos	98.3	104	99.1	98.4	5.54	0.780
	Terbuthylazine	90.7	95.2	89.0	86.6	4.85	2.69
EPA 8321B	2,4-D	147		132	151		12.4
	Acesulfame K	79.0		86.4	86.2		0.270
	Acetaminophen	101		92.0	94.0		2.17
	Acetamiprid	91.4		95.0	93.7		1.31
	Afidopyropen	98.9		92.8	94.5		1.81
	AMPA	92.0		109	111		1.33
	Bentazon	98.6		76.3	87.3		13.5
	Benzovindiflupyr	88.9		73.1	79.9		8.91
	Carbamazepine	124		101	101		0.397
	Clothianidin	95.1		95.8	105		8.99
	Dinotefuran	95.3		114	117		3.27
	Diuron	96.5		80.0	84.4		4.85
	Endothall	126		142	144		1.80
	Fenuron	96.2		85.3	85.1		0.243
	Fluridone	101		86.2	88.2		1.93
	Glufosinate	124		108	117		7.37
	Glyphosate	92.8		73.4	78.7		6.98
	Hydrocodone	106		105	107		1.75
	Ibuprofen	93.3		81.6	71.3		13.5
	Imazapyr	120		126	91.1		21.6
	Imidacloprid	107		158	147		6.63
	Linuron	87.3		74.3	74.6		0.384
	Mandestrobin	95.3		79.4	82.0		3.32
	MCPP	157		153	160		4.84
	Naproxen	107		91.7	96.2		4.77
	Primidone	93.2		92.4	96.9		4.75
	Pyraclostrobin	94.2		78.3	83.5		6.34
	Sucralose	103		114	106		4.63
	Thiamethoxam	108		134	129		3.85

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Tolfenpyrad	65.7	55.6	55.9			0.428
	Triclopyr	111	132	105			23.2
SM 2120 B-2011	Color (true)	99.6				5.20	
SM 2320 B-2011	Total Alkalinity	105				0.408	
SM 2540 C-2011	TDS					4.82	
SM 4500 F-C-2011	Fluoride	94.7	101	101			0.0
SM 5310 B-2011	Organic Carbon	101	98.7	99.7			0.989

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2164724
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2164731
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2164731
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2164724
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2164724
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2164725
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2164725
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2164725
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2164725
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2164726
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2164732
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2164730
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2164730
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2164724
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2164724
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2164731
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2164724
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2164724
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2164724
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2164725

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	03/12/2020			03/12/2020 16:01	Yen Ta	2164724
EPA 200.7 Rev. 4.4	03/12/2020	03/16/2020 17:15	Elliott D. Healy	03/18/2020 01:15	Betina Topolski	2164731
	03/12/2020	03/16/2020 17:15	Elliott D. Healy	03/19/2020 21:32	Betina Topolski	2164731
EPA 200.8 Rev. 5.4	03/12/2020	03/16/2020 17:15	Elliott D. Healy	03/17/2020 21:14	Justin Cutchin	2164731
	03/12/2020	03/16/2020 17:15	Elliott D. Healy	03/18/2020 19:53	Alexander Thompson	2164731
EPA 300.0 Rev. 2.1	03/12/2020			03/18/2020 18:31	Lipi Saha	2164724
EPA 350.1 Rev. 2.0	03/12/2020			03/20/2020 12:55	Ping Hua	2164725
EPA 351.2 Rev. 2.0	03/12/2020	03/17/2020 12:40	Sima Feizi	03/18/2020 20:41	Julia Storbeck	2164725
EPA 353.2 Rev. 2.0	03/12/2020			03/24/2020 11:37	Beverly Y. Sanders	2164725
EPA 365.1 Rev. 2.0	03/12/2020	03/23/2020 15:45	Lipi Saha	03/24/2020 12:08	Benjamin T. Nordmann	2164725
EPA 365.1 Rev. 2.0 dissolved	03/12/2020			03/12/2020 16:51	Carlos Miranda	2164726
EPA 8270E	03/12/2020	03/17/2020 09:00	Julie Wi	03/19/2020 16:29	Vandana T. Nagar	2164732
	03/12/2020	03/17/2020 09:00	Julie Wi	03/20/2020 20:39	Vandana T. Nagar	2164732
EPA 8321B	03/12/2020	03/13/2020 13:00	Mohammad Ghaffari	03/13/2020 19:36	Mohammad Ghaffari	2164730
	03/12/2020	03/13/2020 13:00	Mohammad Ghaffari	03/15/2020 22:06	Mohammad Ghaffari	2164730
	03/12/2020	03/13/2020 13:00	Mohammad Ghaffari	03/16/2020 19:02	Mohammad Ghaffari	2164730
	03/12/2020	03/17/2020 14:30	Hoor Shaik	03/20/2020 05:29	Juyoung Kim	2164730
SM 2120 B-2011	03/12/2020			03/12/2020 17:25	Madeline Gruver	2164724
SM 2320 B-2011	03/12/2020			03/21/2020 04:16	Dale L. Simmons	2164724
SM 2340B	03/12/2020			03/18/2020 01:15	Betina Topolski	2164731
SM 2540 C-2011	03/12/2020			03/16/2020 15:52	Yijie Li	2164724
SM 2540 D-2011	03/12/2020			03/16/2020 15:52	Yijie Li	2164724
SM 4500 F-C-2011	03/12/2020			03/24/2020 21:05	Dale L. Simmons	2164724
SM 5310 B-2011	03/12/2020			03/16/2020 18:02	Lauren Lees	2164725