

Chemical Analysis Report

NW-DIST-2020-07-02-01

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

Event Description: **SMP Bioassessment**
Request ID: **RQ-2020-06-29-43**
Customer: **NW-DIST**
Project ID: **SMP**

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Date Certified: 22-JUL-2020 10:10



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: Big Escambia Creek downstream of Fannie Rd Collection Date/Time: 07/01/2020 11:50

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2180537	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P384013	
	EPA 300.0 Rev. 2.1	Chloride	4.5		mg Cl/L	P384558	
		Sulfate	0.95		mg SO4/L	P384560	
	SM 2120 B-2011	Color (true)	26		PCU	P384019	
	SM 2320 B-2011	Total Alkalinity	4.0		mg CaCO3/L	P384612	
	SM 2540 C-2011	TDS	32		mg/L	P384665	
	SM 2540 D-2011	TSS	3	I	mg/L	P384168	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P384389	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P384435	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P384278	
2180538	EPA 353.2 Rev. 2.0	NO2NO3-N	0.49		mg N/L	P384118	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P384246	
	SM 5310 B-2011	Organic Carbon	2.2		mg C/L	P384264	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	I	mg P/L	P384088	
	dissolved						
2180543	EPA 8321B	2,4-D	0.0020	U	ug/L	P384009	
		Acesulfame K**	0.10	U	ug/L	P384059	
		AMPA**	0.10	U	ug/L	P384059	
		Sucralose**	0.062		ug/L	P384059	
		Acetaminophen**	0.0080	U	ug/L	P384009	
		Acetamiprid**	0.0020	U	ug/L	P384009	
		Endothall**	0.25	U	ug/L	P384059	
		Glufosinate**	0.10	U	ug/L	P384059	
		Glyphosate**	0.10	U	ug/L	P384059	
		Afidopyropen**	0.0020	U	ug/L	P384009	
		Bentazon	8.0E-04	U	ug/L	P384009	
		Benzovindiflupyr**	0.0020	U	ug/L	P384009	
		Carbamazepine**	8.0E-04	U	ug/L	P384009	
		Clothianidin**	0.0020	U	ug/L	P384009	
		Dinotefuran**	0.0020	U	ug/L	P384009	
		Diuron	0.0020	U	ug/L	P384009	
		Fenuron	0.016	U	ug/L	P384009	
		Fluridone**	8.0E-04	U	ug/L	P384009	
		Imazapyr**	0.0060	I	ug/L	P384009	
		Hydrocodone**	0.0020	U	ug/L	P384009	
		Ibuprofen**	0.020	U	ug/L	P384009	
		Imidacloprid	0.0039	I	ug/L	P384009	
		Linuron	0.0040	U	ug/L	P384009	
		Mandestrobin**	0.0020	U	ug/L	P384009	
		MCP	0.0020	U	ug/L	P384009	
		Naproxen**	0.0080	U	ug/L	P384009	
		Primidone**	0.0040	U	ug/L	P384009	
		Pyraclostrobin**	0.0020	U	ug/L	P384009	
		Thiamethoxam**	0.0020	U	ug/L	P384009	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2180543	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P384009	
		Triclopyr**	0.0040	U	ug/L	P384009	
2180544	EPA 200.7 Rev. 4.4	Barium	37.9		ug/L	P384078	
		Calcium	1.92		mg/L	P384078	
		Iron	710		ug/L	P384078	
		Magnesium	1.19		mg/L	P384078	
		Potassium	0.61	I	mg/L	P384078	
		Sodium	2.4		mg/L	P384078	
		Zinc	5.0	U	ug/L	P384078	
	EPA 200.8 Rev. 5.4	Aluminum	87		ug/L	P384078	
		Antimony	0.050	U	ug/L	P384078	
		Arsenic	0.33		ug/L	P384078	
		Boron**	9.5		ug/L	P384078	
		Cadmium	0.020	U	ug/L	P384078	
		Chromium	0.40	U	ug/L	P384078	
		Copper	0.40	U	ug/L	P384078	
		Lead	0.20	U	ug/L	P384078	
		Nickel	0.59	I	ug/L	P384078	
		Selenium	0.20	U	ug/L	P384078	
		Silver	0.010	U	ug/L	P384078	
		Thallium	0.10	U	ug/L	P384078	
2180545	EPA 8270E	Acetochlor	1.1		ng/L	P384079	
		Alachlor	0.27	U	ng/L	P384079	
		Ametryn	0.64	U	ng/L	P384079	
		Atrazine	7.5		ng/L	P384079	
		Atrazine Desethyl	1.8	I	ng/L	P384079	
		Azinphos Methyl	2.1	U	ng/L	P384079	
		Bromacil	0.54	U	ng/L	P384079	
		Butylate	0.43	UJ	ng/L	P384079	RPD
		Carbophenothion	0.54	U	ng/L	P384079	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P384079	
		Chlorpyrifos Methyl	0.054	U	ng/L	P384079	
		Cyanazine	3.5	U	ng/L	P384079	
		Demeton	1.6	U	ng/L	P384079	
		Diazinon	0.13	U	ng/L	P384079	
		Dimethenamid**	0.11	U	ng/L	P384079	
		Disulfoton	0.54	U	ng/L	P384079	
		Dithiopyr**	0.11	U	ng/L	P384079	
		EPTC	1.3	UJ	ng/L	P384079	RPD
		Ethion	0.16	U	ng/L	P384079	
		Ethoprop	0.11	U	ng/L	P384079	
		Fenamiphos	0.54	U	ng/L	P384079	
		Fipronil	0.27	U	ng/L	P384079	
		Fipronil Desulfinyl**	0.13	U	ng/L	P384079	
		Fipronil Sulfide	0.16	U	ng/L	P384079	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2180545	EPA 8270E	Fipronil Sulfone	0.16	U	ng/L	P384079	
		Flumioxazin**	1.9	U	ng/L	P384079	
		Fonofos	0.21	U	ng/L	P384079	
		Hexazinone	3.1		ng/L	P384079	
		Imazalil**	0.80	U	ng/L	P384079	
		Malathion	0.38	U	ng/L	P384079	
		Metalaxyl	0.80	U	ng/L	P384079	
		Metolachlor	5.9		ng/L	P384079	
		Metribuzin	3.5	U	ng/L	P384079	
		Mevinphos	0.54	U	ng/L	P384079	
		Molinate	0.32	UJ	ng/L	P384079	RPD
		Naled**	1.6	U	ng/L	P384079	
		Norflurazon	0.54	U	ng/L	P384079	
		Oxadiazon**	0.11	U	ng/L	P384079	
		Parathion Ethyl	0.27	U	ng/L	P384079	
		Parathion Methyl	0.59	U	ng/L	P384079	
		Pendimethalin	1.1	U	ng/L	P384079	
		Phorate	0.27	UJ	ng/L	P384079	LCS
		Prodiamine**	0.19	UJ	ng/L	P384079	RPD
		Prometon	0.97	U	ng/L	P384079	
		Prometryn	0.21	U	ng/L	P384079	
		Pronamide**	0.16	U	ng/L	P384079	
		Propiconazole**	0.54	U	ng/L	P384079	
		Simazine	0.54	U	ng/L	P384079	
		Sulfentrazone**	0.54	U	ng/L	P384079	
		Tebuconazole**	0.54	U	ng/L	P384079	
		Terbufos	0.11	U	ng/L	P384079	
		Terbuthylazine	0.46	U	ng/L	P384079	

Ref. Method and Comment:

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

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter 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: P384013

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384078

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: P384078

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: P384558

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384560

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384435

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: P384278

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P384118

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P384246

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P384088

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

Reference Method: EPA 8270E
 Batch ID: P384079

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: P384079

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: P384009

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
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
MCP	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P384009

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

Reference Method: EPA 8321B
Batch ID: P384059

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: SM 2120 B-2011
Batch ID: P384019

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P384612

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

Reference Method: SM 2540 C-2011
Batch ID: P384665

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P384168

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P384389

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P384264

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: P384078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	104		P	85 - 115
Calcium	104		P	85 - 115
Iron	106		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	100		P	85 - 115
Sodium	101		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	93.5		P	85 - 115
Antimony	95.0		P	85 - 115
Arsenic	94.9		P	85 - 115
Boron	98.1		P	85 - 115
Cadmium	95.4		P	85 - 115
Chromium	99.0		P	85 - 115
Copper	95.4		P	85 - 115
Lead	94.5		P	85 - 115
Nickel	93.4		P	85 - 115
Selenium	94.9		P	85 - 115
Silver	99.0		P	85 - 115
Thallium	96.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384558

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384560

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384435

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384278

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P384118

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: P384246

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P384088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.3		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P384079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	83.5	96.5	P/P	71 - 122
Alachlor	86.4	98.9	P/P	70 - 121
Ametryn	98.6	109	P/P	49 - 137
Atrazine	91.3	104	P/P	76 - 125
Atrazine Desethyl	75.9	83.7	P/P	31 - 144
Azinphos Methyl	106	118	P/P	67 - 150
Bromacil	78.6	88.6	P/P	36 - 121
Butylate	49.8	53.3	P/P	33 - 88.0
Carbophenothion	91.0	109	P/P	50 - 150
Chlorpyrifos Ethyl	90.6	106	P/P	73 - 117
Chlorpyrifos Methyl	89.9	104	P/P	68 - 121
Cyanazine	95.9	109	P/P	20 - 250
Demeton	63.5	83.8	P/P	30 - 123
Diazinon	82.8	96.1	P/P	70 - 128
Dimethenamid	85.4	97.2	P/P	66 - 122
Disulfoton	64.4	87.1	P/P	46 - 124
Dithiopyr	81.7	95.7	P/P	69 - 122
EPTC	38.4	40.2	P/P	31 - 90.0
Ethion	90.8	109	P/P	45 - 135
Ethoprop	79.2	92.5	P/P	59 - 118
Fenamiphos	91.4	121	P/P	30 - 136
Fipronil	89.6	102	P/P	57 - 127
Fipronil Desulfinyl	96.0	107	P/P	51 - 122
Fipronil Sulfide	90.0	106	P/P	57 - 119
Fipronil Sulfone	92.0	107	P/P	51 - 119
Flumioxazin	152	151	P/P	70 - 200
Fonofos	80.7	102	P/P	60 - 120
Hexazinone	87.5	96.8	P/P	57 - 142
Imazalil	65.2	76.6	P/P	50 - 150
Malathion	101	115	P/P	67 - 128
Metaxyl	88.6	103	P/P	21 - 148
Metolachlor	81.8	97.1	P/P	70 - 120
Metribuzin	107	122	P/P	20 - 253
Mevinphos	70.2	83.4	P/P	47 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P384079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	50.2	56.3	P/P	41 - 99.0
Naled	60.1	69.9	P/P	40 - 130
Norflurazon	93.0	106	P/P	54 - 127
Oxadiazon	83.6	96.9	P/P	65 - 122
Parathion Ethyl	82.4	96.2	P/P	71 - 113
Parathion Methyl	84.2	101	P/P	73 - 129
Pendimethalin	85.6	106	P/P	63 - 130
Phorate	107	134	P/F	48 - 118
Prodiamine	55.8	33.2	P/P	20 - 144
Prometon	78.9	91.3	P/P	53 - 120
Prometryn	84.1	95.6	P/P	63 - 119
Pronamide	88.6	101	P/P	50 - 150
Propiconazole	84.0	95.8	P/P	50 - 150
Simazine	93.7	104	P/P	77 - 129
Sulfentrazone	50.6	54.1	P/P	50 - 150
Tebuconazole	46.4	57.0	P/P	20 - 118
Terbufos	81.5	104	P/P	61 - 119
Terbutylazine	86.8	98.7	P/P	75 - 119

Reference Method: EPA 8321B
 Batch ID: P384009

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	99.8		P	30 - 160
Acetaminophen	71.6		P	30 - 160
Acetamiprid	72.0		P	30 - 160
Afidopyropen	74.5		P	30 - 160
Bentazon	66.7		P	30 - 160
Benzovindiflupyr	70.1		P	30 - 160
Carbamazepine	65.7		P	30 - 160
Clothianidin	76.4		P	30 - 160
Dinotefuran	72.1		P	30 - 160
Diuron	62.5		P	30 - 160
Fenuron	80.8		P	30 - 160
Fluridone	95.8		P	30 - 160
Hydrocodone	82.2		P	30 - 160
Ibuprofen	82.4		P	30 - 160
Imazapyr	77.6		P	30 - 160
Imidacloprid	87.3		P	30 - 160
Linuron	64.6		P	30 - 160
Mandestrobin	76.1		P	30 - 160
MCPP	95.6		P	30 - 160
Naproxen	70.7		P	30 - 160
Primidone	70.9		P	30 - 160
Pyraclostrobin	67.8		P	30 - 160
Thiamethoxam	79.8		P	30 - 160
Tolfenpyrad	57.3		P	30 - 160
Triclopyr	82.9		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P384059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	97.9		P	40 - 150
AMPA	76.9		P	40 - 150
Endothall	89.0		P	40 - 150
Glufosinate	86.9		P	40 - 150
Glyphosate	97.2		P	40 - 140
Sucralose	75.5		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P384019

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P384612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P384389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P384264

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180579	Barium	107	107	P/P	80 - 120
2180579	Calcium	105		P	80 - 120
2180579	Iron	106	105	P/P	80 - 120
2180579	Magnesium	108	106	P/P	80 - 120
2180579	Potassium	105	103	P/P	80 - 120
2180579	Sodium	100	98.6	P/P	80 - 120
2180579	Zinc	107	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180579	Aluminum	89.1	89.1	P/P	80 - 120
2180579	Antimony	93.3	94.3	P/P	80 - 120
2180579	Arsenic	92.5	92.3	P/P	80 - 120
2180579	Boron	99.3	101	P/P	80 - 120
2180579	Cadmium	96.0	95.8	P/P	80 - 120
2180579	Chromium	97.9	97.9	P/P	80 - 120
2180579	Copper	93.9	93.3	P/P	80 - 120
2180579	Lead	94.4	94.9	P/P	80 - 120
2180579	Nickel	91.9	97.2	P/P	80 - 120
2180579	Selenium	91.1	90.2	P/P	80 - 120
2180579	Silver	97.4	98.3	P/P	80 - 120
2180579	Thallium	99.5	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180449	Chloride	103		P	90 - 110
2180537	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384560

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180449	Sulfate	102		P	90 - 110
2180537	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384435

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180538	Ammonia-N	100	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180526	NO2NO3-N	98.5	98.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P384246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180531	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P384088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180509	O-Phosphate-P	92.2	91.9	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P384079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180545	Acetochlor	99.1	85.1	P/P	68 - 126
2180545	Alachlor	101	94.0	P/P	66 - 125
2180545	Ametryn	112	103	P/P	31 - 182
2180545	Atrazine Desethyl	77.6	68.2	P/P	13 - 161
2180545	Azinphos Methyl	115	99.0	P/P	54 - 162
2180545	Bromacil	104	87.4	P/P	34 - 144
2180545	Butylate	60.2	41.8	P/P	16 - 92.0
2180545	Carbophenothion	101	96.6	P/P	50 - 150
2180545	Chlorpyrifos Ethyl	97.2	95.2	P/P	63 - 124
2180545	Chlorpyrifos Methyl	99.9	91.9	P/P	64 - 125
2180545	Cyanazine	116	99.2	P/P	13 - 245
2180545	Demeton	92.8	77.5	P/P	20 - 154
2180545	Diazinon	98.9	88.1	P/P	66 - 141
2180545	Dimethenamid	103	91.4	P/P	50 - 130
2180545	Disulfoton	90.6	78.3	P/P	55 - 130
2180545	Dithiopyr	96.7	88.0	P/P	66 - 122
2180545	EPTC	44.4	28.8	P/P	15 - 93.0
2180545	Ethion	114	107	P/P	15 - 148
2180545	Ethoprop	96.2	80.2	P/P	59 - 126
2180545	Fenamiphos	111	105	P/P	39 - 137
2180545	Fipronil	110	96.8	P/P	47 - 131
2180545	Fipronil Desulfinyl	110	100	P/P	43 - 121
2180545	Fipronil Sulfide	105	98.0	P/P	29 - 134
2180545	Fipronil Sulfone	109	99.8	P/P	19 - 131
2180545	Flumioxazin	198	179	P/P	70 - 200
2180545	Fonofos	93.9	87.0	P/P	62 - 128
2180545	Hexazinone	99.2	99.4	P/P	58 - 154
2180545	Imazalil	85.1	79.5	P/P	50 - 150
2180545	Malathion	114	107	P/P	54 - 135
2180545	Metalaxyl	103	94.6	P/P	46 - 136
2180545	Metolachlor	93.4	80.0	P/P	62 - 126
2180545	Metribuzin	126	113	P/P	44 - 277
2180545	Mevinphos	86.1	68.8	P/P	44 - 135
2180545	Molinate	60.3	43.6	P/P	31 - 104
2180545	Naled	77.3	71.3	P/P	40 - 130
2180545	Norflurazon	107	96.2	P/P	32 - 134
2180545	Oxadiazon	90.3	91.2	P/P	55 - 123
2180545	Parathion Ethyl	90.8	87.0	P/P	67 - 120
2180545	Parathion Methyl	106	93.8	P/P	70 - 140
2180545	Pendimethalin	100	100	P/P	59 - 145

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P384079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180545	Phorate	120	107	P/P	52 - 127
2180545	Prodiamine	43.3	40.1	P/P	11 - 157
2180545	Prometon	94.8	87.3	P/P	55 - 130
2180545	Prometryn	100	92.4	P/P	55 - 127
2180545	Pronamide	112	97.7	P/P	50 - 150
2180545	Propiconazole	95.8	92.3	P/P	50 - 150
2180545	Simazine	106	97.9	P/P	58 - 159
2180545	Sulfentrazone	101	88.9	P/P	50 - 150
2180545	Tebuconazole	61.3	62.5	P/P	10 - 122
2180545	Terbufos	103	91.5	P/P	65 - 131
2180545	Terbutylazine	102	92.6	P/P	63 - 131

Reference Method: EPA 8321B
Batch ID: P384009

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180218	Acetaminophen	77.1	85.4	P/P	30 - 160
2180218	Acetamiprid	63.9	69.3	P/P	30 - 160
2180218	Afidopyropen	64.1	71.0	P/P	30 - 160
2180218	Benzovindiflupyr	69.1	73.2	P/P	30 - 160
2180218	Carbamazepine	51.8	56.2	P/P	30 - 160
2180218	Clothianidin	67.3	72.9	P/P	30 - 160
2180218	Dinotefuran	76.1	77.5	P/P	30 - 160
2180218	Diuron	46.1	50.1	P/P	30 - 160
2180218	Fenuron	66.9	72.0	P/P	30 - 160
2180218	Fluridone	46.0	54.1	P/P	30 - 160
2180218	Hydrocodone	68.1	74.1	P/P	30 - 160
2180218	Ibuprofen	66.5	76.1	P/P	30 - 160
2180218	Imidacloprid	100	110	P/P	30 - 160
2180218	Linuron	52.5	58.9	P/P	30 - 160
2180218	Mandestrobin	71.3	77.9	P/P	30 - 160
2180218	MCP	91.7	95.9	P/P	30 - 160
2180218	Naproxen	70.3	68.6	P/P	30 - 160
2180218	Primidone	78.7	85.9	P/P	30 - 160
2180218	Pyraclostrobin	69.6	75.9	P/P	30 - 160
2180218	Thiamethoxam	78.7	85.9	P/P	30 - 160
2180218	Tolfenpyrad	46.9	50.4	P/P	30 - 160
2180218	Triclopyr	76.7	83.0	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P384059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180490	Acesulfame K	92.9	93.3	P/P	40 - 150
2180490	AMPA	101	111	P/P	40 - 150
2180490	Endothall	101	105	P/P	40 - 150
2180490	Glufosinate	83.5	85.9	P/P	40 - 150
2180490	Glyphosate	74.9	79.4	P/P	40 - 140
2180490	Sucralose	77.3	77.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P384389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180449	Fluoride	98.7	98.2	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P384264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2180452	Organic Carbon	101	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180525	Turbidity	1.42	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180579	Barium	0.0271	Spike	P	0 - 20
2180579	Calcium	0.694	Spike	P	0 - 20
2180579	Iron	0.736	Spike	P	0 - 20
2180579	Magnesium	1.49	Spike	P	0 - 20
2180579	Potassium	2.08	Spike	P	0 - 20
2180579	Sodium	1.30	Spike	P	0 - 20
2180579	Zinc	0.237	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180579	Aluminum	0.0230	Spike	P	0 - 20
2180579	Antimony	1.07	Spike	P	0 - 20
2180579	Arsenic	0.204	Spike	P	0 - 20
2180579	Boron	1.73	Spike	P	0 - 20
2180579	Cadmium	0.220	Spike	P	0 - 20
2180579	Chromium	0.0241	Spike	P	0 - 20
2180579	Copper	0.635	Spike	P	0 - 20
2180579	Lead	0.547	Spike	P	0 - 20
2180579	Nickel	5.68	Spike	P	0 - 20
2180579	Selenium	0.945	Spike	P	0 - 20
2180579	Silver	0.952	Spike	P	0 - 20
2180579	Thallium	1.42	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180449	Chloride	0.0178	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384560

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180449	Sulfate	0.270	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P384435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180538	Ammonia-N	0.986	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P384278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180505	Kjeldahl Nitrogen	1.17	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P384118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180526	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P384246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180531	Total-P	1.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P384088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180509	O-Phosphate-P	0.326	Spike	P	0 - 20

Reference Method: EPA 8270E
 Batch ID: P384079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180545	Acetochlor	11.8	Spike	P	0 - 30
2180545	Alachlor	7.46	Spike	P	0 - 30
2180545	Ametryn	8.57	Spike	P	0 - 30
2180545	Atrazine	12.5	Spike	P	0 - 30
2180545	Atrazine Desethyl	11.3	Spike	P	0 - 30
2180545	Azinphos Methyl	14.9	Spike	P	0 - 30
2180545	Bromacil	17.0	Spike	P	0 - 30
2180545	Butylate	36.2	Spike	F	0 - 30
2180545	Carbophenothion	4.15	Spike	P	0 - 30
2180545	Chlorpyrifos Ethyl	2.09	Spike	P	0 - 30
2180545	Chlorpyrifos Methyl	8.28	Spike	P	0 - 30
2180545	Cyanazine	15.3	Spike	P	0 - 30
2180545	Demeton	17.9	Spike	P	0 - 30
2180545	Diazinon	11.5	Spike	P	0 - 30
2180545	Dimethenamid	11.7	Spike	P	0 - 30
2180545	Disulfoton	14.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P384079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180545	Dithiopyr	9.48	Spike	P	0 - 30
2180545	EPTC	42.8	Spike	F	0 - 30
2180545	Ethion	6.37	Spike	P	0 - 30
2180545	Ethoprop	18.1	Spike	P	0 - 30
2180545	Fenamiphos	6.24	Spike	P	0 - 30
2180545	Fipronil	12.4	Spike	P	0 - 30
2180545	Fipronil Desulfinyl	9.43	Spike	P	0 - 30
2180545	Fipronil Sulfide	7.25	Spike	P	0 - 30
2180545	Fipronil Sulfone	8.61	Spike	P	0 - 30
2180545	Flumioxazin	10.3	Spike	P	0 - 30
2180545	Fonofos	7.57	Spike	P	0 - 30
2180545	Hexazinone	0.158	Spike	P	0 - 30
2180545	Imazalil	6.72	Spike	P	0 - 30
2180545	Malathion	6.70	Spike	P	0 - 30
2180545	Metalaxyl	8.32	Spike	P	0 - 30
2180545	Metolachlor	10.1	Spike	P	0 - 30
2180545	Metribuzin	10.3	Spike	P	0 - 30
2180545	Mevinphos	22.3	Spike	P	0 - 30
2180545	Molinate	32.2	Spike	F	0 - 30
2180545	Naled	7.96	Spike	P	0 - 30
2180545	Norflurazon	10.3	Spike	P	0 - 30
2180545	Oxadiazon	0.928	Spike	P	0 - 30
2180545	Parathion Ethyl	4.33	Spike	P	0 - 30
2180545	Parathion Methyl	11.7	Spike	P	0 - 30
2180545	Pendimethalin	0.438	Spike	P	0 - 30
2180545	Phorate	11.6	Spike	P	0 - 30
2180545	Prodiamine	7.56	Spike	P	0 - 30
2180545	Prometon	8.24	Spike	P	0 - 30
2180545	Prometryn	8.08	Spike	P	0 - 30
2180545	Pronamide	13.5	Spike	P	0 - 30
2180545	Propiconazole	3.67	Spike	P	0 - 30
2180545	Simazine	7.54	Spike	P	0 - 30
2180545	Sulfentrazone	12.8	Spike	P	0 - 30
2180545	Tebuconazole	2.01	Spike	P	0 - 30
2180545	Terbufos	12.0	Spike	P	0 - 30
2180545	Terbuthylazine	9.61	Spike	P	0 - 30
LFB	Acetochlor	14.4	LCS	P	0 - 30
LFB	Alachlor	13.6	LCS	P	0 - 30
LFB	Ametryn	10.4	LCS	P	0 - 30
LFB	Atrazine	12.6	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.78	LCS	P	0 - 30
LFB	Azinphos Methyl	11.0	LCS	P	0 - 30
LFB	Bromacil	11.9	LCS	P	0 - 30
LFB	Butylate	6.87	LCS	P	0 - 30
LFB	Carbophenothion	17.8	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.8	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	14.6	LCS	P	0 - 30
LFB	Cyanazine	12.9	LCS	P	0 - 30
LFB	Demeton	27.6	LCS	P	0 - 30
LFB	Diazinon	14.8	LCS	P	0 - 30
LFB	Dimethenamid	12.9	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P384079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Disulfoton	30.0	LCS	P	0 - 30
LFB	Dithiopyr	15.8	LCS	P	0 - 30
LFB	EPTC	4.59	LCS	P	0 - 30
LFB	Ethion	18.2	LCS	P	0 - 30
LFB	Ethoprop	15.5	LCS	P	0 - 30
LFB	Fenamiphos	27.7	LCS	P	0 - 30
LFB	Fipronil	12.6	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	10.6	LCS	P	0 - 30
LFB	Fipronil Sulfide	16.3	LCS	P	0 - 30
LFB	Fipronil Sulfone	14.6	LCS	P	0 - 30
LFB	Flumioxazin	1.28	LCS	P	0 - 30
LFB	Fonofos	23.4	LCS	P	0 - 30
LFB	Hexazinone	10.2	LCS	P	0 - 30
LFB	Imazalil	16.2	LCS	P	0 - 30
LFB	Malathion	13.2	LCS	P	0 - 30
LFB	Metalaxyl	14.8	LCS	P	0 - 30
LFB	Metolachlor	17.0	LCS	P	0 - 30
LFB	Metribuzin	12.8	LCS	P	0 - 30
LFB	Mevinphos	17.2	LCS	P	0 - 30
LFB	Molinate	11.5	LCS	P	0 - 30
LFB	Naled	15.1	LCS	P	0 - 30
LFB	Norflurazon	13.2	LCS	P	0 - 30
LFB	Oxadiazon	14.7	LCS	P	0 - 30
LFB	Parathion Ethyl	15.5	LCS	P	0 - 30
LFB	Parathion Methyl	18.4	LCS	P	0 - 30
LFB	Pendimethalin	21.1	LCS	P	0 - 30
LFB	Phorate	22.7	LCS	P	0 - 30
LFB	Prodiamine	50.7	LCS	F	0 - 30
LFB	Prometon	14.6	LCS	P	0 - 30
LFB	Prometryn	12.8	LCS	P	0 - 30
LFB	Pronamide	13.2	LCS	P	0 - 30
LFB	Propiconazole	13.1	LCS	P	0 - 30
LFB	Simazine	10.2	LCS	P	0 - 30
LFB	Sulfentrazone	6.76	LCS	P	0 - 30
LFB	Tebuconazole	20.4	LCS	P	0 - 30
LFB	Terbufos	23.9	LCS	P	0 - 30
LFB	Terbutylazine	12.8	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P384009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180218	2,4-D	2.20	Spike	P	0 - 30
2180218	Acetaminophen	10.2	Spike	P	0 - 30
2180218	Acetamiprid	8.13	Spike	P	0 - 30
2180218	Afidopyropen	10.2	Spike	P	0 - 30
2180218	Bentazon	3.67	Spike	P	0 - 30
2180218	Benzovindiflupyr	5.86	Spike	P	0 - 30
2180218	Carbamazepine	6.90	Spike	P	0 - 30
2180218	Clothianidin	7.03	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P384009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180218	Dinotefuran	1.71	Spike	P	0 - 30
2180218	Diuron	2.59	Spike	P	0 - 30
2180218	Fenuron	7.37	Spike	P	0 - 30
2180218	Fluridone	2.37	Spike	P	0 - 30
2180218	Hydrocodone	8.46	Spike	P	0 - 30
2180218	Ibuprofen	13.5	Spike	P	0 - 30
2180218	Imazapyr	6.95	Spike	P	0 - 30
2180218	Imidacloprid	5.48	Spike	P	0 - 30
2180218	Linuron	11.4	Spike	P	0 - 30
2180218	Mandestrobin	8.79	Spike	P	0 - 30
2180218	MCPP	4.32	Spike	P	0 - 30
2180218	Naproxen	2.39	Spike	P	0 - 30
2180218	Primidone	7.96	Spike	P	0 - 30
2180218	Pyraclostrobin	8.65	Spike	P	0 - 30
2180218	Thiamethoxam	8.23	Spike	P	0 - 30
2180218	Tolfenpyrad	7.37	Spike	P	0 - 30
2180218	Triclopyr	7.88	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P384059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180490	Acesulfame K	0.411	Spike	P	0 - 30
2180490	AMPA	9.19	Spike	P	0 - 30
2180490	Endothall	3.69	Spike	P	0 - 30
2180490	Glufosinate	2.89	Spike	P	0 - 30
2180490	Glyphosate	5.93	Spike	P	0 - 30
2180490	Sucralose	0.154	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P384019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180566	Color (true)	0.393	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P384612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2181423	Total Alkalinity	0.0372	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P384665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180449	TDS	3.23	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P384389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180449	Fluoride	0.462	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P384264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2180452	Organic Carbon	1.09	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2180543
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.7	P	30 - 160
EPA 8321B	Diuron-d6	54.3	P	30 - 160
EPA 8321B	Endothall-d6	81.1	P	30 - 160
EPA 8321B	Endothall-d6	81.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	53.0	P	30 - 160
EPA 8321B	Primidone-d5	68.2	P	30 - 160
EPA 8321B	Sucralose-d6	76.1	P	30 - 160
EPA 8321B	Sucralose-d6	76.1	P	30 - 160

Lab Sample ID: 2180545
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	123	P	72 - 135
EPA 8270E	Terbufos-d10	111	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A99661

Included Lab Sample IDs: 2180537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	102	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A99662

Included Lab Sample IDs: 2180537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A99692

Included Lab Sample IDs: 2180539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.5	98.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A99705

Included Lab Sample IDs: 2180538

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

Reference Method: EPA 8321B

Run ID: A99707

Included Lab Sample IDs: 2180543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	73.0	72.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A99729

Included Lab Sample IDs: 2180543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.0	103	P/P	60 - 160
Endothall	94.2	97.2	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A99742

Included Lab Sample IDs: 2180543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	87.5	82.4	P/P	60 - 160
Glufosinate	98.7	99.1	P/P	60 - 160
Glyphosate	100	108	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A99754

Included Lab Sample IDs: 2180538

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A99759

Included Lab Sample IDs: 2180544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	104	P/P	90 - 110
Calcium	105	108	P/P	90 - 110
Iron	103	105	P/P	90 - 110
Magnesium	103	106	P/P	90 - 110
Potassium	99.3	102	P/P	90 - 110
Sodium	101	103	P/P	90 - 110
Zinc	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99781

Included Lab Sample IDs: 2180538

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	99.5	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A99792

Included Lab Sample IDs: 2180537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A99805

Included Lab Sample IDs: 2180538

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99808

Included Lab Sample IDs: 2180538

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99818

Included Lab Sample IDs: 2180544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	91.6	93.2	P/P	90 - 110
Antimony	93.6	95.9	P/P	90 - 110
Arsenic	92.1	91.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99818

Included Lab Sample IDs: 2180544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	94.4	96.7	P/P	90 - 110
Chromium	95.0	96.9	P/P	90 - 110
Copper	91.6	91.1	P/P	90 - 110
Lead	94.5	94.3	P/P	90 - 110
Nickel	91.3	91.4	P/P	90 - 110
Selenium	95.7	97.0	P/P	90 - 110
Silver	95.6	96.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A99828

Included Lab Sample IDs: 2180543

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.6	89.5	P/P	50 - 150
Acetaminophen	109	107	P/P	60 - 160
Acetamiprid	110	111	P/P	50 - 150
Afidopyropen	104	99.8	P/P	50 - 150
Bentazon	118	117	P/P	50 - 160
Benzovindiflupyr	92.7	93.7	P/P	50 - 150
Carbamazepine	109	107	P/P	60 - 150
Clothianidin	102	94.0	P/P	60 - 150
Dinotefuran	103	104	P/P	50 - 150
Diuron	112	104	P/P	60 - 160
Fenuron	83.7	95.8	P/P	60 - 150
Fluridone	124	118	P/P	60 - 160
Hydrocodone	119	119	P/P	60 - 150
Ibuprofen	90.1	109	P/P	50 - 160
Imazapyr	81.6	111	P/P	50 - 150
Imidacloprid	99.9	98.7	P/P	60 - 150
Linuron	102	95.2	P/P	60 - 150
Mandestrobin	105	98.9	P/P	50 - 150
MCP	107	106	P/P	50 - 150
Naproxen	113	121	P/P	50 - 160
Primidone	97.4	92.7	P/P	60 - 150
Pyraclostrobin	98.7	101	P/P	60 - 150
Thiamethoxam	116	114	P/P	50 - 150
Tolfenpyrad	108	99.3	P/P	60 - 150
Triclopyr	97.2	97.8	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A99856

Included Lab Sample IDs: 2180537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	98.9	P/P	90 - 110
Sulfate	98.8	99.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A99873
 Included Lab Sample IDs: 2180545

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.8		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	99.5		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.1		P	80 - 120
Carbophenothion	102		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	104		P	80 - 120
Demeton	97.2		P	80 - 120
Diazinon	98.5		P	80 - 120
Dimethenamid	98.8		P	80 - 120
Disulfoton	98.1		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	99.3		P	80 - 120
Fenamiphos	103		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	104		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Flumioxazin	88.3		P	80 - 120
Fonofos	97.3		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	108		P	80 - 120
Malathion	99.6		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	99.0		P	80 - 120
Metribuzin	99.7		P	80 - 120
Mevinphos	95.9		P	80 - 120
Molinate	99.5		P	80 - 120
Naled	109		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	102		P	80 - 120
Parathion Ethyl	95.7		P	80 - 120
Parathion Methyl	98.6		P	80 - 120
Pendimethalin	96.9		P	80 - 120
Phorate	99.3		P	80 - 120
Prodiamine	92.9		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	98.9		P	80 - 120
Propiconazole	101		P	80 - 120
Simazine	96.8		P	80 - 120
Sulfentrazone	99.8		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	97.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A99873
Included Lab Sample IDs: 2180545

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Terbutylazine	99.6		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A99877
Included Lab Sample IDs: 2180537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	99.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A99899
Included Lab Sample IDs: 2180544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	97.7	97.8	P/P	90 - 110
Thallium	92.4	91.1	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.42	
EPA 200.7 Rev. 4.4	Barium	104		107	107			0.0271
	Calcium	104		105				0.694
	Iron	106		106	105			0.736
	Magnesium	107		108	106			1.49
	Potassium	100		105	103			2.08
	Sodium	101		100	98.6			1.30
	Zinc	104		107	107			0.237
EPA 200.8 Rev. 5.4	Aluminum	93.5		89.1	89.1			0.0230
	Antimony	95.0		93.3	94.3			1.07
	Arsenic	94.9		92.5	92.3			0.204
	Boron	98.1		99.3	101			1.73
	Cadmium	95.4		96.0	95.8			0.220
	Chromium	99.0		97.9	97.9			0.0241
	Copper	95.4		93.9	93.3			0.635
	Lead	94.5		94.4	94.9			0.547
	Nickel	93.4		91.9	97.2			5.68
	Selenium	94.9		91.1	90.2			0.945
	Silver	99.0		97.4	98.3			0.952
	Thallium	96.0		99.5	101			1.42
EPA 300.0 Rev. 2.1	Chloride	101		103	102		0.0178	
	Sulfate	100		102	102		0.270	
EPA 350.1 Rev. 2.0	Ammonia-N	103		100	99.0			0.986
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102						1.17
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0		98.5	98.0			0.509
EPA 365.1 Rev. 2.0	Total-P	103		103	101			1.12
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3		92.2	91.9			0.326
EPA 8270E	Acetochlor	83.5	96.5	99.1	85.1	14.4		11.8
	Alachlor	86.4	98.9	101	94.0	13.6		7.46
	Ametryn	98.6	109	112	103	10.4		8.57
	Atrazine	91.3	104			12.6		12.5
	Atrazine Desethyl	75.9	83.7	77.6	68.2	9.78		11.3
	Azinphos Methyl	106	118	115	99.0	11.0		14.9
	Bromacil	78.6	88.6	104	87.4	11.9		17.0
	Butylate	49.8	53.3	60.2	41.8	6.87		36.2
	Carbophenothion	91.0	109	101	96.6	17.8		4.15
	Chlorpyrifos Ethyl	90.6	106	97.2	95.2	15.8		2.09
	Chlorpyrifos Methyl	89.9	104	99.9	91.9	14.6		8.28
	Cyanazine	95.9	109	116	99.2	12.9		15.3
	Demeton	63.5	83.8	92.8	77.5	27.6		17.9
	Diazinon	82.8	96.1	98.9	88.1	14.8		11.5
	Dimethenamid	85.4	97.2	103	91.4	12.9		11.7
	Disulfoton	64.4	87.1	90.6	78.3	30.0		14.6
	Dithiopyr	81.7	95.7	96.7	88.0	15.8		9.48
	EPTC	38.4	40.2	44.4	28.8	4.59		42.8
	Ethion	90.8	109	114	107	18.2		6.37
	Ethoprop	79.2	92.5	96.2	80.2	15.5		18.1
	Fenamiphos	91.4	121	111	105	27.7		6.24
	Fipronil	89.6	102	110	96.8	12.6		12.4
	Fipronil Desulfanyl	96.0	107	110	100	10.6		9.43
	Fipronil Sulfide	90.0	106	105	98.0	16.3		7.25
	Fipronil Sulfone	92.0	107	109	99.8	14.6		8.61
	Flumioxazin	152	151	198	179	1.28		10.3
	Fonofos	80.7	102	93.9	87.0	23.4		7.57

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Hexazinone	87.5	96.8	99.2	99.4	10.2		0.158
	Imazalil	65.2	76.6	85.1	79.5	16.2		6.72
	Malathion	101	115	114	107	13.2		6.70
	Metalaxyl	88.6	103	103	94.6	14.8		8.32
	Metolachlor	81.8	97.1	93.4	80.0	17.0		10.1
	Metribuzin	107	122	126	113	12.8		10.3
	Mevinphos	70.2	83.4	86.1	68.8	17.2		22.3
	Molinate	50.2	56.3	60.3	43.6	11.5		32.2
	Naled	60.1	69.9	77.3	71.3	15.1		7.96
	Norflurazon	93.0	106	107	96.2	13.2		10.3
	Oxadiazon	83.6	96.9	90.3	91.2	14.7		0.928
	Parathion Ethyl	82.4	96.2	90.8	87.0	15.5		4.33
	Parathion Methyl	84.2	101	106	93.8	18.4		11.7
	Pendimethalin	85.6	106	100	100	21.1		0.438
	Phorate	107	134	120	107	22.7		11.6
	Prodiamine	55.8	33.2	43.3	40.1	50.7		7.56
	Prometon	78.9	91.3	94.8	87.3	14.6		8.24
	Prometryn	84.1	95.6	100	92.4	12.8		8.08
	Pronamide	88.6	101	112	97.7	13.2		13.5
	Propiconazole	84.0	95.8	95.8	92.3	13.1		3.67
	Simazine	93.7	104	106	97.9	10.2		7.54
	Sulfentrazone	50.6	54.1	101	88.9	6.76		12.8
	Tebuconazole	46.4	57.0	61.3	62.5	20.4		2.01
	Terbufos	81.5	104	103	91.5	23.9		12.0
	Terbutylazine	86.8	98.7	102	92.6	12.8		9.61
EPA 8321B	2,4-D	99.8						2.20
	Acesulfame K	97.9		92.9	93.3			0.411
	Acetaminophen	71.6		77.1	85.4			10.2
	Acetamiprid	72.0		63.9	69.3			8.13
	Afidopyropen	74.5		64.1	71.0			10.2
	AMPA	76.9		101	111			9.19
	Bentazon	66.7						3.67
	Benzovindiflupyr	70.1		69.1	73.2			5.86
	Carbamazepine	65.7		51.8	56.2			6.90
	Clothianidin	76.4		67.3	72.9			7.03
	Dinotefuran	72.1		76.1	77.5			1.71
	Diuron	62.5		46.1	50.1			2.59
	Endothall	89.0		101	105			3.69
	Fenuron	80.8		66.9	72.0			7.37
	Fluridone	95.8		46.0	54.1			2.37
	Glufosinate	86.9		83.5	85.9			2.89
	Glyphosate	97.2		74.9	79.4			5.93
	Hydrocodone	82.2		68.1	74.1			8.46
	Ibuprofen	82.4		66.5	76.1			13.5
	Imazapyr	77.6						6.95
	Imidacloprid	87.3		100	110			5.48
	Linuron	64.6		52.5	58.9			11.4
	Mandestrobin	76.1		71.3	77.9			8.79
	MCPP	95.6		91.7	95.9			4.32
	Naproxen	70.7		70.3	68.6			2.39
	Primidone	70.9		78.7	85.9			7.96
	Pyraclostrobin	67.8		69.6	75.9			8.65
	Sucralose	75.5		77.3	77.2			0.154
	Thiamethoxam	79.8		78.7	85.9			8.23

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8321B	Tolfenpyrad	57.3	46.9	50.4			7.37
	Triclopyr	82.9	76.7	83.0			7.88
SM 2120 B-2011	Color (true)	99.7				0.393	
SM 2320 B-2011	Total Alkalinity	99.1				0.0372	
SM 2540 C-2011	TDS					3.23	
SM 4500 F-C-2011	Fluoride	100	98.7	98.2			0.462
SM 5310 B-2011	Organic Carbon	100	101	103			1.09

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2180537
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2180544
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2180544
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2180537
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2180537
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2180538
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2180538
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2180538
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2180538
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2180539
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2180545
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2180543
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2180543
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2180537
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2180537
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2180537
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2180537
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2180537
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2180538

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	07/02/2020			07/02/2020 14:42	Yen Ta	2180537
EPA 200.7 Rev. 4.4	07/02/2020	07/06/2020 13:00	Elliott D. Healy	07/08/2020 18:21	Betina Topolski	2180544
EPA 200.8 Rev. 5.4	07/02/2020	07/06/2020 13:00	Elliott D. Healy	07/10/2020 17:11	Justin Cutchin	2180544
	07/02/2020	07/06/2020 13:00	Elliott D. Healy	07/15/2020 17:47	Alexander Thompson	2180544
EPA 300.0 Rev. 2.1	07/02/2020			07/09/2020 01:10	Elliott Rodriguez	2180537
EPA 350.1 Rev. 2.0	07/02/2020			07/11/2020 14:17	Ping Hua	2180538
EPA 351.2 Rev. 2.0	07/02/2020	07/09/2020 09:20	Sima Feizi	07/10/2020 14:52	Jhamieka S. Greenwood	2180538
EPA 353.2 Rev. 2.0	07/02/2020			07/07/2020 09:39	Beverly Y. Sanders	2180538
EPA 365.1 Rev. 2.0	07/02/2020	07/08/2020 13:48	Yen Ta	07/10/2020 08:53	Lipi Saha	2180538
EPA 365.1 Rev. 2.0 dissolved	07/02/2020			07/02/2020 17:38	Carlos Miranda	2180539
EPA 8270E	07/02/2020	07/08/2020 08:00	Fe-Val Siddell	07/10/2020 16:14	Vandana T. Nagar	2180545
EPA 8321B	07/02/2020	07/06/2020 10:45	Rebecca Ware	07/06/2020 17:43	Rebecca Ware	2180543
	07/02/2020	07/06/2020 10:45	Rebecca Ware	07/07/2020 17:19	Rebecca Ware	2180543
	07/02/2020	07/06/2020 10:45	Rebecca Ware	07/08/2020 11:21	Rebecca Ware	2180543
	07/02/2020	07/07/2020 09:00	Hoor Shaik	07/11/2020 08:04	Juyoung Kim	2180543
SM 2120 B-2011	07/02/2020			07/02/2020 16:18	Madeline Gruver	2180537
SM 2320 B-2011	07/02/2020			07/14/2020 02:30	Dale L. Simmons	2180537
SM 2540 C-2011	07/02/2020			07/06/2020 19:14	Madeline Gruver	2180537
SM 2540 D-2011	07/02/2020			07/06/2020 19:14	Madeline Gruver	2180537
SM 4500 F-C-2011	07/02/2020			07/09/2020 05:51	Dale L. Simmons	2180537
SM 5310 B-2011	07/02/2020			07/08/2020 20:35	David Boose	2180538