

Chemical Analysis Report

NW-DIST-2020-10-16-01

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

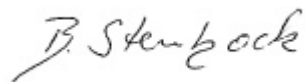
Event Description: **SMP Bioassessment**
Request ID: **RQ-2020-10-12-54**
Customer: **NW-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 06-NOV-2020 16:50



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: Graveyard Branch Downstream of Tradewinds Dr. **Collection Date/Time: 10/15/2020 09:53**

Field ID: G4NW0455

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2202961	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P388815	
	EPA 300.0 Rev. 2.1	Chloride	9.4		mg Cl/L	P389333	
		Sulfate	7.6		mg SO4/L	P389336	
	SM 2120 B-2011	Color (true)	32		PCU	P388818	
	SM 2320 B-2011	Total Alkalinity	38		mg CaCO3/L	P389112	
	SM 2540 C-2011	TDS	64		mg/L	P389380	
	SM 2540 D-2011	TSS	2	I	mg/L	P389308	
2202962	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P389117	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P388849	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P389091	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.45		mg N/L	P389015	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P389172	
2202963	SM 5310 B-2011	Organic Carbon	2.9		mg C/L	P388948	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P388821	
2202971	EPA 8321B	2,4-D	0.0073	I	ug/L	P388895	
		Acesulfame K**	0.10	U	ug/L	P388857	
		AMPA**	0.10	I	ug/L	P388857	
		Sucralose**	0.11		ug/L	P388857	
		Acetaminophen**	0.0080	U	ug/L	P388895	
		Acetamiprid**	0.0020	U	ug/L	P388895	
		Endothal**	0.25	U	ug/L	P388857	
		Glufosinate**	0.10	U	ug/L	P388857	
		Glyphosate**	0.10	U	ug/L	P388857	
		Afidopyropen**	0.0020	U	ug/L	P388895	
		Bentazon	8.0E-04	U	ug/L	P388895	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P388895	
		Carbamazepine**	8.0E-04	U	ug/L	P388895	
		Clothianidin**	0.0020	U	ug/L	P388895	
		Dinotefuran**	0.0020	U	ug/L	P388895	
		Diuron	0.0020	U	ug/L	P388895	MS, RPD
		Fenuron	0.016	U	ug/L	P388895	
		Fluridone**	8.0E-04	U	ug/L	P388895	
		Imazapyr**	0.016		ug/L	P388895	MS
		Hydrocodone**	0.0020	U	ug/L	P388895	
		Ibuprofen**	0.020	U	ug/L	P388895	
		Imidacloprid	0.075		ug/L	P388895	
		Linuron	0.0040	U	ug/L	P388895	
		Mandestrobin**	0.0020	U	ug/L	P388895	
		MCPP	0.0020	I	ug/L	P388895	
		Naproxen**	0.0080	U	ug/L	P388895	MS
		Primidone**	0.0040	U	ug/L	P388895	RPD
		Pyraclostrobin**	0.0020	U	ug/L	P388895	

Field ID: G4NW0455

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2202971	EPA 8321B	Thiamethoxam**	0.0020	U	ug/L	P388895	
		Tolfenpyrad**	0.0020	U	ug/L	P388895	
		Triclopyr**	0.0040	U	ug/L	P388895	
2202972	EPA 200.7 Rev. 4.4	Barium	17.0		ug/L	P388938	
		Calcium	17.1		mg/L	P388938	
		Iron	690		ug/L	P388938	
		Magnesium	2.32		mg/L	P388938	
		Potassium	0.93	I	mg/L	P388938	
		Sodium	5.2		mg/L	P388938	
		Zinc	5.0	U	ug/L	P388938	
	EPA 200.8 Rev. 5.4	Aluminum	96		ug/L	P388938	
		Antimony	0.050	U	ug/L	P388938	
		Arsenic	0.85		ug/L	P388938	
		Boron**	24.7		ug/L	P388938	
		Cadmium	0.020	U	ug/L	P388938	
		Chromium	0.40	U	ug/L	P388938	
		Copper	0.44	I	ug/L	P388938	
		Lead	0.25	I	ug/L	P388938	
		Nickel	0.50	U	ug/L	P388938	
		Selenium	0.20	U	ug/L	P388938	
		Silver	0.010	U	ug/L	P388938	
		Thallium	0.10	U	ug/L	P388938	
	SM 2340B	Hardness	52.2		mg/L	P388938	
2202975	EPA 8270E	Acetochlor	0.25	U	ng/L	P388720	
		Alachlor	0.25	U	ng/L	P388720	
		Ametryn	0.61	U	ng/L	P388720	
		Atrazine	5.1		ng/L	P388720	
		Atrazine Desethyl	4.6	I	ng/L	P388720	
		Azinphos Methyl	2.0	U	ng/L	P388720	
		Bromacil	15		ng/L	P388720	
		Butylate	0.40	U	ng/L	P388720	
		Carbophenothion	0.50	U	ng/L	P388720	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P388720	
		Chlorpyrifos Methyl	0.050	U	ng/L	P388720	
		Cyanazine	3.3	U	ng/L	P388720	
		Demeton	1.5	U	ng/L	P388720	
		Diazinon	0.13	U	ng/L	P388720	
		Dimethenamid**	0.10	U	ng/L	P388720	
		Disulfoton	0.50	U	ng/L	P388720	
		Dithiopyr**	0.24	I	ng/L	P388720	
		EPTC	1.3	U	ng/L	P388720	
		Ethion	0.15	U	ng/L	P388720	
		Ethoprop	0.10	U	ng/L	P388720	
		Fenamiphos	0.50	U	ng/L	P388720	
		Fipronil	4.5		ng/L	P388720	

Field ID: G4NW0455

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2202975	EPA 8270E	Fipronil Desulfinyl**	0.53		ng/L	P388720	
		Fipronil Sulfide	3.1		ng/L	P388720	
		Fipronil Sulfone	19		ng/L	P388720	
		Flumioxazin**	1.8	U	ng/L	P388720	
		Fonofos	0.20	U	ng/L	P388720	
		Hexazinone	0.50	U	ng/L	P388720	
		Imazalil**	0.76	U	ng/L	P388720	
		Malathion	0.35	U	ng/L	P388720	
		Metalaxyl	0.76	U	ng/L	P388720	
		Metolachlor	0.50	U	ng/L	P388720	
		Metribuzin	3.3	U	ng/L	P388720	
		Mevinphos	0.50	U	ng/L	P388720	
		Molinate	0.30	U	ng/L	P388720	
		Naled**	1.5	U	ng/L	P388720	
		Norflurazon	0.50	U	ng/L	P388720	
		Oxadiazon	0.10	U	ng/L	P388720	
		Parathion Ethyl	0.25	U	ng/L	P388720	
		Parathion Methyl	0.55	U	ng/L	P388720	
		Pendimethalin	1.0	U	ng/L	P388720	
		Phorate	0.25	U	ng/L	P388720	
		Prodiamine**	0.32	IJ	ng/L	P388720	RPD
		Prometon	0.91	U	ng/L	P388720	
		Prometryn	0.20	U	ng/L	P388720	
		Pronamide**	0.15	U	ng/L	P388720	
		Propiconazole**	0.50	U	ng/L	P388720	
		Simazine	14	J	ng/L	P388720	LCS
		Sulfentrazone**	1.6	I	ng/L	P388720	
		Tebuconazole**	0.50	U	ng/L	P388720	
		Terbufos	0.10	U	ng/L	P388720	
		Terbutylazine	0.43	U	ng/L	P388720	

Ref. Method and Comment:

EPA 8270E: MS accuracy for ametryn and atrazine 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: P388815

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P388938

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: P388938

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: P389333

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389336

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P388849

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: P389091

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P389015

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P389172

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P388821

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

Reference Method: EPA 8270E
 Batch ID: P388720

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: P388720

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: P388857

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: P388895

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: P388895

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
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
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P388818

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P389112

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P389380

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389308

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389117

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P388948

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: P388938

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	107		P	85 - 115
Potassium	102		P	85 - 115
Sodium	99.3		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P388938

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.1		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	99.1		P	85 - 115
Boron	97.9		P	85 - 115
Cadmium	97.4		P	85 - 115
Chromium	95.3		P	85 - 115
Copper	97.7		P	85 - 115
Lead	94.2		P	85 - 115
Nickel	96.6		P	85 - 115
Selenium	96.5		P	85 - 115
Silver	97.2		P	85 - 115
Thallium	97.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389333

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389336

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P388849

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: P389091

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: P389015

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P388821

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.6		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P388720

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	87.4	78.9	P/P	71 - 122
Alachlor	87.0	83.7	P/P	70 - 121
Ametryn	91.4	83.4	P/P	49 - 137
Atrazine	90.6	82.3	P/P	76 - 125
Atrazine Desethyl	71.8	69.5	P/P	31 - 144
Azinphos Methyl	97.9	82.2	P/P	67 - 150
Bromacil	56.5	50.0	P/P	36 - 121
Butylate	63.9	54.8	P/P	33 - 88.0
Carbophenothion	79.8	73.6	P/P	66 - 116
Chlorpyrifos Ethyl	84.1	74.6	P/P	73 - 117
Chlorpyrifos Methyl	90.0	81.7	P/P	68 - 121
Cyanazine	100	99.1	P/P	20 - 250
Demeton	81.1	71.5	P/P	30 - 123
Diazinon	83.8	77.3	P/P	70 - 128
Dimethenamid	81.9	77.6	P/P	66 - 122
Disulfoton	70.4	72.7	P/P	46 - 124
Dithiopyr	78.6	73.2	P/P	69 - 122
EPTC	60.6	53.8	P/P	31 - 90.0
Ethion	73.5	73.6	P/P	45 - 135
Ethoprop	82.6	73.2	P/P	59 - 118
Fenamiphos	75.6	80.5	P/P	30 - 136
Fipronil	84.0	80.6	P/P	57 - 127
Fipronil Desulfinyl	84.6	79.4	P/P	51 - 122
Fipronil Sulfide	76.6	66.6	P/P	57 - 119
Fipronil Sulfone	85.4	69.6	P/P	51 - 119
Flumioxazin	131	116	P/P	20 - 250
Fonofos	82.8	73.0	P/P	60 - 120
Hexazinone	79.1	72.8	P/P	57 - 142
Imazalil	79.3	71.2	P/P	30 - 139
Malathion	90.7	86.2	P/P	67 - 128
Metaxyl	87.8	81.5	P/P	21 - 148
Metolachlor	88.2	82.4	P/P	70 - 120
Metribuzin	92.1	82.3	P/P	20 - 250
Mevinphos	70.0	67.5	P/P	47 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P388720

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	74.2	63.2	P/P	41 - 99.0
Naled	50.3	45.2	P/P	38 - 97.0
Norflurazon	76.4	67.0	P/P	54 - 127
Oxadiazon	74.8	69.2	P/P	65 - 122
Parathion Ethyl	85.1	80.2	P/P	71 - 113
Parathion Methyl	91.6	79.9	P/P	73 - 129
Pendimethalin	72.8	66.0	P/P	63 - 130
Phorate	101	103	P/P	48 - 118
Prodiamine	76.8	36.8	P/P	20 - 144
Prometon	83.5	76.2	P/P	53 - 120
Prometryn	83.2	79.1	P/P	63 - 119
Pronamide	92.3	82.6	P/P	81 - 122
Propiconazole	71.0	66.5	P/P	62 - 124
Simazine	92.2	76.1	P/F	77 - 129
Sulfentrazone	62.7	59.1	P/P	20 - 137
Tebuconazole	41.4	44.0	P/P	20 - 118
Terbufos	80.1	72.6	P/P	61 - 119
Terbutylazine	90.2	84.7	P/P	75 - 119

Reference Method: EPA 8321B
Batch ID: P388857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	69.4		P	40 - 150
AMPA	114		P	40 - 150
Endothall	109		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	104		P	40 - 140
Sucralose	116		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P388895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	45.5		P	30 - 160
Acetaminophen	53.8		P	30 - 160
Acetamiprid	61.5		P	30 - 160
Afidopyrophen	50.6		P	30 - 160
Bentazon	48.3		P	30 - 160
Benzovindiflupyr	65.0		P	30 - 160
Carbamazepine	63.9		P	30 - 160
Clothianidin	101		P	30 - 160
Dinotefuran	84.8		P	30 - 160
Diuron	70.2		P	30 - 160
Fenuron	100		P	30 - 160
Fluridone	83.0		P	30 - 160
Hydrocodone	79.0		P	30 - 160
Ibuprofen	48.4		P	30 - 160
Imazapyr	52.0		P	30 - 160
Imidacloprid	77.2		P	30 - 160
Linuron	61.1		P	30 - 160
Mandestrobin	78.8		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P388895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCP	58.1		P	30 - 160
Naproxen	45.5		P	30 - 160
Primidone	90.5		P	30 - 160
Pyraclostrobin	58.8		P	30 - 160
Thiamethoxam	85.6		P	30 - 160
Tolfenpyrad	38.6		P	30 - 160
Triclopyr	50.2		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P388818

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

Reference Method: SM 2320 B-2011
Batch ID: P389112

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P389117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P388948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P388938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202972	Barium	105	101	P/P	80 - 120
2202972	Calcium	102		P	80 - 120
2202972	Iron	108	103	P/P	80 - 120
2202972	Magnesium	108	100	P/P	80 - 120
2202972	Potassium	103	97.8	P/P	80 - 120
2202972	Sodium	98.8		P	80 - 120
2202972	Zinc	104	98.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P388938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202972	Aluminum	99.3	99.3	P/P	80 - 120
2202972	Antimony	100	100	P/P	80 - 120
2202972	Arsenic	102	102	P/P	80 - 120
2202972	Boron	101	100	P/P	80 - 120
2202972	Cadmium	99.3	103	P/P	80 - 120
2202972	Chromium	98.7	98.6	P/P	80 - 120
2202972	Copper	100	99.9	P/P	80 - 120
2202972	Lead	96.1	95.5	P/P	80 - 120
2202972	Nickel	99.8	99.5	P/P	80 - 120
2202972	Selenium	98.8	98.2	P/P	80 - 120
2202972	Silver	97.0	98.0	P/P	80 - 120
2202972	Thallium	99.4	99.7	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202412	Chloride	103		P	90 - 110
2202832	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202412	Sulfate	103		P	90 - 110
2202832	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P388849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202962	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389091

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202962	Kjeldahl Nitrogen	107	108	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202928	NO2NO3-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202833	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P388821

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202796	O-Phosphate-P	97.9	97.4	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P388720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202161	Acetochlor	88.0	73.8	P/P	68 - 126
2202161	Alachlor	83.8	72.4	P/P	66 - 125
2202161	Atrazine Desethyl	64.2	48.3	P/P	13 - 161
2202161	Azinphos Methyl	88.2	76.1	P/P	54 - 162
2202161	Bromacil	61.0	48.0	P/P	34 - 144
2202161	Butylate	47.3	37.9	P/P	16 - 92.0
2202161	Carbophenothion	73.3	66.4	P/P	30 - 131
2202161	Chlorpyrifos Ethyl	87.9	72.5	P/P	63 - 124
2202161	Chlorpyrifos Methyl	87.6	75.3	P/P	64 - 125
2202161	Cyanazine	100	84.9	P/P	13 - 245
2202161	Demeton	83.4	74.3	P/P	20 - 154
2202161	Diazinon	86.5	74.6	P/P	66 - 141
2202161	Dimethenamid	80.6	70.7	P/P	50 - 130
2202161	Disulfoton	70.1	62.6	P/P	55 - 130
2202161	Dithiopyr	78.8	68.6	P/P	66 - 122
2202161	EPTC	45.8	34.0	P/P	15 - 93.0
2202161	Ethion	72.6	71.8	P/P	15 - 148
2202161	Ethoprop	83.6	69.5	P/P	59 - 126
2202161	Fenamiphos	43.4	44.7	P/P	39 - 137
2202161	Fipronil	84.2	72.9	P/P	47 - 131
2202161	Fipronil Desulfinyl	84.2	72.5	P/P	43 - 121
2202161	Fipronil Sulfide	72.6	58.7	P/P	29 - 134
2202161	Fipronil Sulfone	79.0	70.8	P/P	19 - 131
2202161	Flumioxazin	144	130	P/P	10 - 300
2202161	Fonofos	81.6	76.0	P/P	62 - 128
2202161	Hexazinone	86.4	70.7	P/P	58 - 154
2202161	Imazalil	70.5	66.3	P/P	10 - 215
2202161	Malathion	90.1	78.2	P/P	54 - 135
2202161	Metalaxyl	88.7	73.6	P/P	46 - 136
2202161	Metolachlor	86.8	72.6	P/P	62 - 126
2202161	Metribuzin	103	89.3	P/P	44 - 277
2202161	Mevinphos	75.3	62.5	P/P	44 - 135
2202161	Molinate	67.9	51.0	P/P	31 - 104
2202161	Naled	48.7	37.7	P/P	33 - 113

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P388720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202161	Norflurazon	71.6	60.7	P/P	32 - 134
2202161	Oxadiazon	72.4	64.3	P/P	55 - 123
2202161	Parathion Ethyl	89.0	76.3	P/P	67 - 120
2202161	Parathion Methyl	90.6	75.6	P/P	70 - 140
2202161	Pendimethalin	79.7	70.3	P/P	59 - 145
2202161	Phorate	87.2	79.3	P/P	52 - 127
2202161	Prodiamine	47.4	56.8	P/P	11 - 157
2202161	Prometon	82.6	71.0	P/P	55 - 130
2202161	Prometryn	82.3	70.8	P/P	55 - 127
2202161	Pronamide	94.9	79.6	P/P	66 - 150
2202161	Propiconazole	67.5	51.8	P/P	14 - 178
2202161	Simazine	89.5	76.5	P/P	58 - 159
2202161	Sulfentrazone	68.9	59.1	P/P	21 - 144
2202161	Tebuconazole	37.3	35.9	P/P	10 - 122
2202161	Terbufos	84.1	72.5	P/P	65 - 131
2202161	Terbutylazine	91.5	78.6	P/P	63 - 131

Reference Method: EPA 8321B
Batch ID: P388857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202760	Acesulfame K	89.4	90.0	P/P	40 - 150
2202760	AMPA	120	122	P/P	40 - 150
2202760	Endothall	108	109	P/P	40 - 150
2202760	Glufosinate	97.4	92.7	P/P	40 - 150
2202760	Glyphosate	85.1	86.0	P/P	40 - 140
2202760	Sucralose	122	119	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P388895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202818	2,4-D	40.9	42.4	P/P	30 - 160
2202818	Acetaminophen	85.6	100	P/P	30 - 160
2202818	Acetamiprid	60.5	51.3	P/P	30 - 160
2202818	Afidopyropen	45.1	34.0	P/P	30 - 160
2202818	Bentazon	20.2	19.8	F/F	30 - 160
2202818	Benzovindiflupyr	57.5	49.0	P/P	30 - 160
2202818	Carbamazepine	49.3	39.3	P/P	30 - 160
2202818	Clothianidin	76.6	66.5	P/P	30 - 160
2202818	Dinotefuran	68.1	63.9	P/P	30 - 160
2202818	Diuron	30.1	20.7	P/F	30 - 160
2202818	Fenuron	61.7	70.3	P/P	30 - 160
2202818	Fluridone	66.7	51.6	P/P	30 - 160
2202818	Hydrocodone	56.5	57.6	P/P	30 - 160
2202818	Ibuprofen	36.6	35.8	P/P	30 - 160
2202818	Imazapyr	28.2	26.5	F/F	30 - 160
2202818	Imidacloprid	112	95.4	P/P	30 - 160
2202818	Linuron	53.7	54.4	P/P	30 - 160
2202818	Mandestrobin	64.4	58.6	P/P	30 - 160
2202818	MCP	63.1	58.3	P/P	30 - 160
2202818	Naproxen	32.2	29.6	P/F	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P388895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202818	Primidone	63.4	40.6	P/P	30 - 160
2202818	Pyraclostrobin	57.0	50.1	P/P	30 - 160
2202818	Thiamethoxam	83.0	69.4	P/P	30 - 160
2202818	Tolfenpyrad	35.7	32.5	P/P	30 - 160
2202818	Triclopyr	54.4	46.4	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P389117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202774	Fluoride	99.1	103	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P388948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202890	Organic Carbon	94.1	95.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P388815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202900	Turbidity	14.7	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P388938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202972	Barium	4.21	Spike	P	0 - 20
2202972	Calcium	3.12	Spike	P	0 - 20
2202972	Iron	3.93	Spike	P	0 - 20
2202972	Magnesium	4.46	Spike	P	0 - 20
2202972	Potassium	3.95	Spike	P	0 - 20
2202972	Sodium	3.19	Spike	P	0 - 20
2202972	Zinc	5.43	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P388938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202972	Aluminum	0.0358	Spike	P	0 - 20
2202972	Antimony	0.00951	Spike	P	0 - 20
2202972	Arsenic	0.361	Spike	P	0 - 20
2202972	Boron	0.966	Spike	P	0 - 20
2202972	Cadmium	3.29	Spike	P	0 - 20
2202972	Chromium	0.0942	Spike	P	0 - 20
2202972	Copper	0.113	Spike	P	0 - 20
2202972	Lead	0.608	Spike	P	0 - 20
2202972	Nickel	0.316	Spike	P	0 - 20
2202972	Selenium	0.627	Spike	P	0 - 20
2202972	Silver	1.00	Spike	P	0 - 20
2202972	Thallium	0.304	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202412	Chloride	0.105	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202412	Sulfate	0.161	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P388849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202962	Ammonia-N	0.124	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202962	Kjeldahl Nitrogen	1.07	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202928	NO2NO3-N	0.398	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202833	Total-P	0.0902	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P388821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202796	O-Phosphate-P	0.466	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P388720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202161	Acetochlor	17.4	Spike	P	0 - 30
2202161	Alachlor	14.6	Spike	P	0 - 30
2202161	Ametryn	17.6	Spike	P	0 - 30
2202161	Atrazine	15.0	Spike	P	0 - 30
2202161	Atrazine Desethyl	18.4	Spike	P	0 - 30
2202161	Azinphos Methyl	14.7	Spike	P	0 - 30
2202161	Bromacil	23.8	Spike	P	0 - 30
2202161	Butylate	22.1	Spike	P	0 - 30
2202161	Carbophenothion	9.89	Spike	P	0 - 30
2202161	Chlorpyrifos Ethyl	19.2	Spike	P	0 - 30
2202161	Chlorpyrifos Methyl	15.0	Spike	P	0 - 30
2202161	Cyanazine	16.4	Spike	P	0 - 30
2202161	Demeton	11.6	Spike	P	0 - 30
2202161	Diazinon	14.8	Spike	P	0 - 30
2202161	Dimethenamid	13.0	Spike	P	0 - 30
2202161	Disulfoton	11.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P388720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202161	Dithiopyr	13.8	Spike	P	0 - 30
2202161	EPTC	29.5	Spike	P	0 - 30
2202161	Ethion	1.12	Spike	P	0 - 30
2202161	Ethoprop	18.5	Spike	P	0 - 30
2202161	Fenamiphos	2.95	Spike	P	0 - 30
2202161	Fipronil	14.4	Spike	P	0 - 30
2202161	Fipronil Desulfinyl	15.0	Spike	P	0 - 30
2202161	Fipronil Sulfide	21.3	Spike	P	0 - 30
2202161	Fipronil Sulfone	11.0	Spike	P	0 - 30
2202161	Flumioxazin	10.2	Spike	P	0 - 30
2202161	Fonofos	7.04	Spike	P	0 - 30
2202161	Hexazinone	12.4	Spike	P	0 - 30
2202161	Imazalil	6.25	Spike	P	0 - 30
2202161	Malathion	14.2	Spike	P	0 - 30
2202161	Metalaxyl	18.6	Spike	P	0 - 30
2202161	Metolachlor	15.4	Spike	P	0 - 30
2202161	Metribuzin	13.9	Spike	P	0 - 30
2202161	Mevinphos	18.5	Spike	P	0 - 30
2202161	Molinate	28.3	Spike	P	0 - 30
2202161	Naled	25.5	Spike	P	0 - 30
2202161	Norflurazon	16.5	Spike	P	0 - 30
2202161	Oxadiazon	11.9	Spike	P	0 - 30
2202161	Parathion Ethyl	15.4	Spike	P	0 - 30
2202161	Parathion Methyl	18.0	Spike	P	0 - 30
2202161	Pendimethalin	12.6	Spike	P	0 - 30
2202161	Phorate	9.45	Spike	P	0 - 30
2202161	Prodiamine	18.1	Spike	P	0 - 30
2202161	Prometon	15.1	Spike	P	0 - 30
2202161	Prometryn	13.4	Spike	P	0 - 30
2202161	Pronamide	17.6	Spike	P	0 - 30
2202161	Propiconazole	11.3	Spike	P	0 - 30
2202161	Simazine	15.6	Spike	P	0 - 30
2202161	Sulfentrazone	15.4	Spike	P	0 - 30
2202161	Tebuconazole	3.88	Spike	P	0 - 30
2202161	Terbufos	14.8	Spike	P	0 - 30
2202161	Terbuthylazine	15.2	Spike	P	0 - 30
LFB	Acetochlor	10.3	LCS	P	0 - 30
LFB	Alachlor	3.94	LCS	P	0 - 30
LFB	Ametryn	9.23	LCS	P	0 - 30
LFB	Atrazine	9.68	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.21	LCS	P	0 - 30
LFB	Azinphos Methyl	17.4	LCS	P	0 - 30
LFB	Bromacil	12.2	LCS	P	0 - 30
LFB	Butylate	15.2	LCS	P	0 - 30
LFB	Carbophenothion	8.14	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	11.9	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.68	LCS	P	0 - 30
LFB	Cyanazine	0.899	LCS	P	0 - 30
LFB	Demeton	12.6	LCS	P	0 - 30
LFB	Diazinon	8.05	LCS	P	0 - 30
LFB	Dimethenamid	5.41	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P388720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Disulfoton	3.21	LCS	P	0 - 30
LFB	Dithiopyr	7.08	LCS	P	0 - 30
LFB	EPTC	11.8	LCS	P	0 - 30
LFB	Ethion	0.150	LCS	P	0 - 30
LFB	Ethoprop	12.1	LCS	P	0 - 30
LFB	Fenamiphos	6.31	LCS	P	0 - 30
LFB	Fipronil	4.17	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	6.32	LCS	P	0 - 30
LFB	Fipronil Sulfide	13.9	LCS	P	0 - 30
LFB	Fipronil Sulfone	20.5	LCS	P	0 - 30
LFB	Flumioxazin	12.4	LCS	P	0 - 30
LFB	Fonofos	12.7	LCS	P	0 - 30
LFB	Hexazinone	8.35	LCS	P	0 - 30
LFB	Imazalil	10.8	LCS	P	0 - 30
LFB	Malathion	5.09	LCS	P	0 - 30
LFB	Metalaxyl	7.46	LCS	P	0 - 30
LFB	Metolachlor	6.77	LCS	P	0 - 30
LFB	Metribuzin	11.2	LCS	P	0 - 30
LFB	Mevinphos	3.72	LCS	P	0 - 30
LFB	Molinate	15.9	LCS	P	0 - 30
LFB	Naled	10.8	LCS	P	0 - 30
LFB	Norflurazon	13.1	LCS	P	0 - 30
LFB	Oxadiazon	7.80	LCS	P	0 - 30
LFB	Parathion Ethyl	5.96	LCS	P	0 - 30
LFB	Parathion Methyl	13.7	LCS	P	0 - 30
LFB	Pendimethalin	9.71	LCS	P	0 - 30
LFB	Phorate	1.63	LCS	P	0 - 30
LFB	Prodiamine	70.4	LCS	F	0 - 30
LFB	Prometon	9.09	LCS	P	0 - 30
LFB	Prometryn	5.03	LCS	P	0 - 30
LFB	Pronamide	11.1	LCS	P	0 - 30
LFB	Propiconazole	6.56	LCS	P	0 - 30
LFB	Simazine	19.1	LCS	P	0 - 30
LFB	Sulfentrazone	5.88	LCS	P	0 - 30
LFB	Tebuconazole	6.23	LCS	P	0 - 30
LFB	Terbufos	9.74	LCS	P	0 - 30
LFB	Terbutylazine	6.31	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P388857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202760	Acesulfame K	0.707	Spike	P	0 - 30
2202760	AMPA	0.939	Spike	P	0 - 30
2202760	Endothall	0.924	Spike	P	0 - 30
2202760	Glufosinate	4.95	Spike	P	0 - 30
2202760	Glyphosate	1.02	Spike	P	0 - 30
2202760	Sucralose	2.67	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P388895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202818	2,4-D	2.97	Spike	P	0 - 30
2202818	Acetaminophen	15.7	Spike	P	0 - 30
2202818	Acetamiprid	16.4	Spike	P	0 - 30
2202818	Afidopyropen	28.0	Spike	P	0 - 30
2202818	Bentazon	0.898	Spike	P	0 - 30
2202818	Benzovindiflupyr	15.9	Spike	P	0 - 30
2202818	Carbamazepine	22.4	Spike	P	0 - 30
2202818	Clothianidin	14.1	Spike	P	0 - 30
2202818	Dinotefuran	6.44	Spike	P	0 - 30
2202818	Diuron	31.8	Spike	F	0 - 30
2202818	Fenuron	13.0	Spike	P	0 - 30
2202818	Fluridone	20.5	Spike	P	0 - 30
2202818	Hydrocodone	2.04	Spike	P	0 - 30
2202818	Ibuprofen	2.25	Spike	P	0 - 30
2202818	Imazapyr	3.05	Spike	P	0 - 30
2202818	Imidacloprid	15.4	Spike	P	0 - 30
2202818	Linuron	1.34	Spike	P	0 - 30
2202818	Mandestrobin	9.44	Spike	P	0 - 30
2202818	MCPP	8.05	Spike	P	0 - 30
2202818	Naproxen	8.26	Spike	P	0 - 30
2202818	Primidone	43.7	Spike	F	0 - 30
2202818	Pyraclostrobin	12.9	Spike	P	0 - 30
2202818	Thiamethoxam	17.7	Spike	P	0 - 30
2202818	Tolfenpyrad	9.44	Spike	P	0 - 30
2202818	Triclopyr	15.9	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P388818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202979	Color (true)	0.556	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P389112

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202774	Total Alkalinity	0.527	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P389380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202900	TDS	3.79	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 D-2011
Batch ID: P389308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202900	TSS	3.77	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P389117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202774	Fluoride	0.928	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P388948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202890	Organic Carbon	1.07	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2202971
Field Sample ID: G4NW0455

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	61.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.6	P	30 - 160
EPA 8321B	Diuron-d6	40.2	P	30 - 160
EPA 8321B	Endothall-d6	129	P	30 - 160
EPA 8321B	Endothall-d6	129	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Ibuprofen-d3	48.0	P	30 - 160
EPA 8321B	Primidone-d5	69.6	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	30 - 160

Lab Sample ID: 2202975
Field Sample ID: G4NW0455

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	96.8	P	72 - 135
EPA 8270E	Terbufos-d10	94.0	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: 101840
Included Lab Sample IDs: 2202975

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine Desethyl	96.2		P	80 - 120

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A101567
Included Lab Sample IDs: 2202961

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

Reference Method: SM 2120 B-2011
Run ID: A101568
Included Lab Sample IDs: 2202961

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A101569
Included Lab Sample IDs: 2202963

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A101575
Included Lab Sample IDs: 2202962

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

Reference Method: EPA 8321B
Run ID: A101618
Included Lab Sample IDs: 2202971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	69.4	69.1	P/P	50 - 160
Endothall	123	125	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A101631
Included Lab Sample IDs: 2202962

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.7	96.3	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A101643
Included Lab Sample IDs: 2202971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	117	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A101643
Included Lab Sample IDs: 2202971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glufosinate	108	111	P/P	50 - 160
Glyphosate	106	105	P/P	50 - 160

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A101646
Included Lab Sample IDs: 2202972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	102	P/P	90 - 110
Calcium	103	103	P/P	90 - 110
Iron	103	102	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	101	99.1	P/P	90 - 110
Sodium	101	100	P/P	90 - 110
Zinc	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A101657
Included Lab Sample IDs: 2202962

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A101667
Included Lab Sample IDs: 2202972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.6	97.9	P/P	90 - 110
Antimony	97.4	96.5	P/P	90 - 110
Arsenic	100	98.7	P/P	90 - 110
Boron	101	100	P/P	90 - 110
Cadmium	98.6	97.1	P/P	90 - 110
Chromium	94.3	92.0	P/P	90 - 110
Copper	96.5	94.9	P/P	90 - 110
Lead	96.7	96.2	P/P	90 - 110
Nickel	96.1	95.3	P/P	90 - 110
Selenium	97.4	96.6	P/P	90 - 110
Silver	101	99.3	P/P	90 - 110
Thallium	93.7	94.3	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A101671
Included Lab Sample IDs: 2202971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	75.7	80.2	P/P	50 - 150
Acetaminophen	98.3	115	P/P	60 - 160
Acetamiprid	117	118	P/P	50 - 150
Afidopyropen	90.2	94.6	P/P	50 - 150
Bentazon	80.7	80.7	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A101671

Included Lab Sample IDs: 2202971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	99.9	92.9	P/P	50 - 150
Carbamazepine	109	99.5	P/P	60 - 150
Clothianidin	107	100	P/P	60 - 150
Dinotefuran	92.4	94.8	P/P	50 - 150
Diuron	101	100	P/P	60 - 160
Fenuron	106	110	P/P	60 - 150
Fluridone	97.3	101	P/P	60 - 160
Hydrocodone	98.8	100	P/P	60 - 150
Ibuprofen	79.9	80.9	P/P	50 - 160
Imazapyr	112	113	P/P	50 - 160
Imidacloprid	89.6	96.4	P/P	60 - 150
Linuron	62.6	67.6	P/P	60 - 150
Mandestrobin	101	109	P/P	50 - 150
MCPP	70.2	63.7	P/P	50 - 150
Naproxen	83.3	124	P/P	50 - 160
Primidone	82.2	102	P/P	60 - 150
Pyraclostrobin	97.0	90.9	P/P	60 - 150
Thiamethoxam	91.6	90.1	P/P	50 - 150
Tolfenpyrad	76.5	89.6	P/P	60 - 150
Triclopyr	71.7	79.4	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A101686

Included Lab Sample IDs: 2202971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	114	123	P/P	50 - 160

Reference Method: SM 2320 B-2011

Run ID: A101694

Included Lab Sample IDs: 2202961

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.7	96.5	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A101694

Included Lab Sample IDs: 2202961

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A101723

Included Lab Sample IDs: 2202962

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.5	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A101787

Included Lab Sample IDs: 2202962

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	93.8	94.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A101798

Included Lab Sample IDs: 2202961

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

Reference Method: EPA 8270E

Run ID: A101840

Included Lab Sample IDs: 2202975

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.5		P	80 - 120
Alachlor	97.6		P	80 - 120
Ametryn	91.3		P	80 - 120
Atrazine	97.0		P	80 - 120
Azinphos Methyl	91.3		P	80 - 120
Bromacil	92.0		P	80 - 120
Butylate	100		P	80 - 120
Carbophenothion	94.9		P	80 - 120
Chlorpyrifos Ethyl	94.9		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	95.0		P	80 - 120
Demeton	96.8		P	80 - 120
Diazinon	98.2		P	80 - 120
Dimethenamid	97.0		P	80 - 120
Disulfoton	97.2		P	80 - 120
Dithiopyr	96.9		P	80 - 120
EPTC	99.1		P	80 - 120
Ethion	90.3		P	80 - 120
Ethoprop	98.3		P	80 - 120
Fenamiphos	91.1		P	80 - 120
Fipronil	95.1		P	80 - 120
Fipronil Desulfinyl	98.9		P	80 - 120
Fipronil Sulfide	93.7		P	80 - 120
Fipronil Sulfone	94.4		P	80 - 120
Flumioxazin	86.0		P	80 - 120
Fonofos	97.9		P	80 - 120
Hexazinone	94.9		P	80 - 120
Imazalil	94.8		P	80 - 120
Malathion	92.0		P	80 - 120
Metalaxyl	97.7		P	80 - 120
Metolachlor	97.4		P	80 - 120
Metribuzin	92.7		P	80 - 120
Mevinphos	96.3		P	80 - 120
Molinate	97.4		P	80 - 120
Naled	103		P	80 - 120
Norflurazon	92.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A101840

Included Lab Sample IDs: 2202975

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	95.9		P	80 - 120
Parathion Ethyl	94.0		P	80 - 120
Parathion Methyl	95.2		P	80 - 120
Pendimethalin	100		P	80 - 120
Phorate	96.5		P	80 - 120
Prodiamine	95.1		P	80 - 120
Prometon	94.1		P	80 - 120
Prometryn	94.8		P	80 - 120
Pronamide	93.6		P	80 - 120
Propiconazole	89.9		P	80 - 120
Simazine	99.9		P	80 - 120
Sulfentrazone	91.8		P	80 - 120
Tebuconazole	93.2		P	80 - 120
Terbufos	99.0		P	80 - 120
Terbutylazine	98.2		P	80 - 120

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						14.7	
EPA 200.7 Rev. 4.4	Barium	102		105	101			4.21
	Calcium	103		102				3.12
	Iron	106		108	103			3.93
	Magnesium	107		108	100			4.46
	Potassium	102		103	97.8			3.95
	Sodium	99.3		98.8				3.19
	Zinc	101		104	98.3			5.43
EPA 200.8 Rev. 5.4	Aluminum	99.1		99.3	99.3			0.0358
	Antimony	97.7		100	100			0.0095
	Arsenic	99.1		102	102			0.361
	Boron	97.9		101	100			0.966
	Cadmium	97.4		99.3	103			3.29
	Chromium	95.3		98.7	98.6			0.0942
	Copper	97.7		100	99.9			0.113
	Lead	94.2		96.1	95.5			0.608
	Nickel	96.6		99.8	99.5			0.316
	Selenium	96.5		98.8	98.2			0.627
	Silver	97.2		97.0	98.0			1.00
	Thallium	97.6		99.4	99.7			0.304
EPA 300.0 Rev. 2.1	Chloride	102		103	102		0.105	
	Sulfate	103		103	103		0.161	
EPA 350.1 Rev. 2.0	Ammonia-N	101		100	100			0.124
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		107	108			1.07
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5		99.0	98.5			0.398
EPA 365.1 Rev. 2.0	Total-P	106		107	107			0.0902
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6		97.9	97.4			0.466
EPA 8270E	Acetochlor	87.4	78.9	73.8	88.0	10.3		17.4
	Alachlor	87.0	83.7	72.4	83.8	3.94		14.6
	Ametryn	91.4	83.4			9.23		17.6
	Atrazine	90.6	82.3			9.68		15.0
	Atrazine Desethyl	71.8	69.5	48.3	64.2	3.21		18.4
	Azinphos Methyl	97.9	82.2	76.1	88.2	17.4		14.7
	Bromacil	56.5	50.0	61.0	48.0	12.2		23.8
	Butylate	63.9	54.8	47.3	37.9	15.2		22.1
	Carbophenothion	79.8	73.6	66.4	73.3	8.14		9.89
	Chlorpyrifos Ethyl	84.1	74.6	72.5	87.9	11.9		19.2
	Chlorpyrifos Methyl	90.0	81.7	75.3	87.6	9.68		15.0
	Cyanazine	100	99.1	84.9	100	0.899		16.4
	Demeton	81.1	71.5	74.3	83.4	12.6		11.6
	Diazinon	83.8	77.3	74.6	86.5	8.05		14.8
	Dimethenamid	81.9	77.6	70.7	80.6	5.41		13.0
	Disulfoton	70.4	72.7	62.6	70.1	3.21		11.3
	Dithiopyr	78.6	73.2	68.6	78.8	7.08		13.8
	EPTC	60.6	53.8	34.0	45.8	11.8		29.5
	Ethion	73.5	73.6	71.8	72.6	0.150		1.12
	Ethoprop	82.6	73.2	69.5	83.6	12.1		18.5
	Fenamiphos	75.6	80.5	44.7	43.4	6.31		2.95
	Fipronil	84.0	80.6	72.9	84.2	4.17		14.4
	Fipronil Desulfinyl	84.6	79.4	72.5	84.2	6.32		15.0
	Fipronil Sulfide	76.6	66.6	58.7	72.6	13.9		21.3
	Fipronil Sulfone	85.4	69.6	70.8	79.0	20.5		11.0
	Flumioxazin	131	116	130	144	12.4		10.2
	Fonofos	82.8	73.0	76.0	81.6	12.7		7.04

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Hexazinone	79.1	72.8	70.7	86.4	8.35		12.4
	Imazalil	79.3	71.2	66.3	70.5	10.8		6.25
	Malathion	90.7	86.2	78.2	90.1	5.09		14.2
	Metalaxyl	87.8	81.5	73.6	88.7	7.46		18.6
	Metolachlor	88.2	82.4	72.6	86.8	6.77		15.4
	Metribuzin	92.1	82.3	89.3	103	11.2		13.9
	Mevinphos	70.0	67.5	62.5	75.3	3.72		18.5
	Molinate	74.2	63.2	51.0	67.9	15.9		28.3
	Naled	50.3	45.2	37.7	48.7	10.8		25.5
	Norflurazon	76.4	67.0	60.7	71.6	13.1		16.5
	Oxadiazon	74.8	69.2	64.3	72.4	7.80		11.9
	Parathion Ethyl	85.1	80.2	76.3	89.0	5.96		15.4
	Parathion Methyl	91.6	79.9	75.6	90.6	13.7		18.0
	Pendimethalin	72.8	66.0	70.3	79.7	9.71		12.6
	Phorate	101	103	79.3	87.2	1.63		9.45
	Prodiamine	76.8	36.8	56.8	47.4	70.4		18.1
	Prometon	83.5	76.2	71.0	82.6	9.09		15.1
	Prometryn	83.2	79.1	70.8	82.3	5.03		13.4
	Pronamide	92.3	82.6	79.6	94.9	11.1		17.6
	Propiconazole	71.0	66.5	51.8	67.5	6.56		11.3
	Simazine	92.2	76.1	76.5	89.5	19.1		15.6
	Sulfentrazone	62.7	59.1	59.1	68.9	5.88		15.4
	Tebuconazole	41.4	44.0	35.9	37.3	6.23		3.88
	Terbufos	80.1	72.6	72.5	84.1	9.74		14.8
	Terbuthylazine	90.2	84.7	91.5	78.6	6.31		15.2
EPA 8321B	2,4-D	45.5		40.9	42.4			2.97
	Acesulfame K	69.4		89.4	90.0			0.707
	Acetaminophen	53.8		85.6	100			15.7
	Acetamiprid	61.5		60.5	51.3			16.4
	Afidopyropen	50.6		45.1	34.0			28.0
	AMPA	114		120	122			0.939
	Bentazon	48.3		20.2	19.8			0.898
	Benzovindiflupyr	65.0		57.5	49.0			15.9
	Carbamazepine	63.9		49.3	39.3			22.4
	Clothianidin	101		76.6	66.5			14.1
	Dinotefuran	84.8		68.1	63.9			6.44
	Diuron	70.2		30.1	20.7			31.8
	Endothall	109		108	109			0.924
	Fenuron	100		61.7	70.3			13.0
	Fluridone	83.0		66.7	51.6			20.5
	Glufosinate	100		97.4	92.7			4.95
	Glyphosate	104		85.1	86.0			1.02
	Hydrocodone	79.0		56.5	57.6			2.04
	Ibuprofen	48.4		36.6	35.8			2.25
	Imazapyr	52.0		28.2	26.5			3.05
	Imidacloprid	77.2		112	95.4			15.4
	Linuron	61.1		53.7	54.4			1.34
	Mandestrobin	78.8		64.4	58.6			9.44
	MCPP	58.1		63.1	58.3			8.05
	Naproxen	45.5		32.2	29.6			8.26
	Primidone	90.5		63.4	40.6			43.7
	Pyraclostrobin	58.8		57.0	50.1			12.9
	Sucralose	116		122	119			2.67
	Thiamethoxam	85.6		83.0	69.4			17.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Tolfenpyrad	38.6	35.7	32.5			9.44
	Triclopyr	50.2	54.4	46.4			15.9
SM 2120 B-2011	Color (true)	100				0.556	
SM 2320 B-2011	Total Alkalinity	99.7				0.527	
SM 2540 C-2011	TDS					3.79	
SM 2540 D-2011	TSS					3.77	
SM 4500 F-C-2011	Fluoride	98.3	99.1	103			0.928
SM 5310 B-2011	Organic Carbon	94.8	94.1	95.3			1.07

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2202961
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2202972
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2202972
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2202961
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2202961
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2202962
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2202962
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2202962
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2202962
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2202963
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2202975
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2202971
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2202971
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2202961
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2202961
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2202972
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2202961
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2202961
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2202961
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2202962

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	10/16/2020			10/16/2020 15:33	Yen Ta	2202961
EPA 200.7 Rev. 4.4	10/16/2020	10/20/2020 12:25	Elliott D. Healy	10/20/2020 21:18	Betina Topolski	2202972
EPA 200.8 Rev. 5.4	10/16/2020	10/20/2020 12:25	Elliott D. Healy	10/21/2020 14:27	Alexander Thompson	2202972
EPA 300.0 Rev. 2.1	10/16/2020			10/27/2020 13:04	Lipi Saha	2202961
EPA 350.1 Rev. 2.0	10/16/2020			10/18/2020 13:47	Ping Hua	2202962
EPA 351.2 Rev. 2.0	10/16/2020	10/22/2020 13:36	David Boose	10/23/2020 12:31	Elliott Rodriguez	2202962
EPA 353.2 Rev. 2.0	10/16/2020			10/21/2020 09:44	Beverly Y. Sanders	2202962
EPA 365.1 Rev. 2.0	10/16/2020	10/23/2020 15:15	Shengyu Wang	10/27/2020 10:12	Shengyu Wang	2202962
EPA 365.1 Rev. 2.0 dissolved	10/16/2020			10/16/2020 15:55	Samantha Davila	2202963
EPA 8270E	10/16/2020	10/16/2020 12:30	Fe-Val Siddell	10/19/2020 21:06	Vandana T. Nagar	2202975
EPA 8321B	10/16/2020	10/19/2020 10:15	Rebecca Ware	10/19/2020 15:36	Rebecca Ware	2202971
	10/16/2020	10/19/2020 10:15	Rebecca Ware	10/20/2020 13:44	Rebecca Ware	2202971
	10/16/2020	10/19/2020 10:15	Rebecca Ware	10/22/2020 04:36	Rebecca Ware	2202971
	10/16/2020	10/20/2020 13:30	Hoor Shaik	10/22/2020 02:41	Juyoung Kim	2202971
SM 2120 B-2011	10/16/2020			10/16/2020 15:51	Blanca Fach	2202961
SM 2320 B-2011	10/16/2020			10/22/2020 05:50	Samantha Davila	2202961
SM 2340B	10/16/2020			10/20/2020 21:18	Betina Topolski	2202972
SM 2540 C-2011	10/16/2020			10/21/2020 15:19	Yijie Li	2202961
SM 2540 D-2011	10/16/2020			10/21/2020 15:19	Yijie Li	2202961
SM 4500 F-C-2011	10/16/2020			10/22/2020 05:50	Samantha Davila	2202961
SM 5310 B-2011	10/16/2020			10/20/2020 09:13	Lauren Lees	2202962