Chemical Analysis Report

NE-DIST-2020-11-05-01

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

Event Description: **Nassau SCI's**
Request ID: **RQ-2020-11-02-08**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 25-NOV-2020 08:57

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: Deep Creek At Cr 121 **Collection Date/Time: 11/04/2020 11:30**

Field ID: 19010048 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2206532	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P389827	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P390001	
		Sulfate	0.35	I	mg SO4/L	P390003	
	SM 2120 B-2011	Color (true)	350		PCU	P389823	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P389921	
	SM 2540 C-2011	TDS	70		mg/L	P390114	
	SM 2540 D-2011	TSS	2	U	mg/L	P389985	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P390099	
2206534	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P389894	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P389866	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P389862	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P389875	
	SM 5310 B-2011	Organic Carbon	28		mg C/L	P389908	
2206536	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P389841	
2206553	EPA 8321B	2,4-D	0.0020	U	ug/L	P389732	
		Acesulfame K**	0.10	U	ug/L	P389918	
		AMPA**	0.10	U	ug/L	P389918	
		Sucralose**	0.010	U	ug/L	P389918	
		Acetaminophen**	0.0080	U	ug/L	P389732	
		Acetamiprid**	0.0020	U	ug/L	P389732	
		Endothall**	0.25	U	ug/L	P389918	
		Glufosinate**	0.10	U	ug/L	P389918	
		Glyphosate**	0.10	U	ug/L	P389918	
		Afidopyropen**	0.0020	U	ug/L	P389732	
		Bentazon	8.0E-04	U	ug/L	P389732	
		Benzovindiflupyr**	0.0020	U	ug/L	P389732	
		Carbamazepine**	8.0E-04	U	ug/L	P389732	
		Clothianidin**	0.0020	U	ug/L	P389732	
		Dinotefuran**	0.0020	U	ug/L	P389732	
		Diuron	0.0020	U	ug/L	P389732	
		Fenuron	0.016	U	ug/L	P389732	
		Fluridone**	8.0E-04	U	ug/L	P389732	
		Imazapyr**	0.014	I	ug/L	P389732	
		Hydrocodone**	0.0020	U	ug/L	P389732	
		Ibuprofen**	0.020	U	ug/L	P389732	
		Imidacloprid	0.0020	U	ug/L	P389732	
		Linuron	0.0040	U	ug/L	P389732	
		Mandestrobin**	0.0020	U	ug/L	P389732	
		MCPP	0.0020	U	ug/L	P389732	
		Naproxen**	0.0080	U	ug/L	P389732	
		Primidone**	0.0040	U	ug/L	P389732	
		Pyraclostrobin**	0.0020	U	ug/L	P389732	
		Thiamethoxam**	0.0020	U	ug/L	P389732	

Field ID: 19010048 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2206553	EPA 8321B	Tolfenpyrad**	0.0020	UJ	ug/L	P389732	CCV
		Triclopyr**	0.0040	U	ug/L	P389732	
2206555	EPA 200.7 Rev. 4.4	Barium	14.1		ug/L	P389819	
		Calcium	2.24		mg/L	P389819	
		Iron	1.84E+03		ug/L	P389819	
		Magnesium	0.85		mg/L	P389819	
		Potassium	0.30	U	mg/L	P389819	
		Sodium	4.8		mg/L	P389819	
		Zinc	5.0	U	ug/L	P389819	
	EPA 200.8 Rev. 5.4	Aluminum	487		ug/L	P389819	
		Antimony	0.050	U	ug/L	P389819	
		Arsenic	0.56		ug/L	P389819	
		Beryllium	0.049		ug/L	P389819	
		Boron**	14.0		ug/L	P389819	
		Cadmium	0.020	U	ug/L	P389819	
		Chromium	0.65	I	ug/L	P389819	
		Copper	0.40	U	ug/L	P389819	
		Lead	0.68		ug/L	P389819	
		Nickel	0.79	I	ug/L	P389819	
		Selenium	0.20	U	ug/L	P389819	
		Silver	0.010	U	ug/L	P389819	
		Thallium	0.10	U	ug/L	P389819	
	SM 2340B	Hardness	9.1		mg/L	P389819	
2206557	EPA 8270E	Acetochlor	0.25	U	ng/L	P389780	
		Alachlor	0.25	U	ng/L	P389780	
		Ametryn	0.59	U	ng/L	P389780	
		Atrazine	0.25	U	ng/L	P389780	
		Atrazine Desethyl	1.5	U	ng/L	P389780	
		Azinphos Methyl	2.0	U	ng/L	P389780	
		Azoxystrobin**	0.49	U	ng/L	P389780	
		Bromacil	0.49	U	ng/L	P389780	
		Butylate	0.39	U	ng/L	P389780	
		Carbophenothion	0.49	U	ng/L	P389780	
		Carfentrazone Ethyl**	0.098	U	ng/L	P389780	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P389780	
		Chlorpyrifos Methyl	0.049	U	ng/L	P389780	
		Cyanazine	3.2	U	ng/L	P389780	
		Demeton	1.5	U	ng/L	P389780	
		Diazinon	0.12	U	ng/L	P389780	
		Difenoconazole**	0.59	U	ng/L	P389780	
		Dimethenamid**	0.098	U	ng/L	P389780	
		Disulfoton	0.49	U	ng/L	P389780	
		Dithiopyr**	0.098	U	ng/L	P389780	
		EPTC	1.2	U	ng/L	P389780	
		Ethion	0.15	U	ng/L	P389780	

Field ID: 19010048 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2206557	EPA 8270E	Ethoprop	0.098	U	ng/L	P389780	
		Fenamiphos	0.49	U	ng/L	P389780	
		Fenbuconazole**	0.12	U	ng/L	P389780	
		Fipronil	0.25	U	ng/L	P389780	
		Fipronil Desulfinyl**	0.12	U	ng/L	P389780	
		Fipronil Sulfide	0.15	U	ng/L	P389780	
		Fipronil Sulfone	0.15	U	ng/L	P389780	
		Fluazifop-P-butyl**	0.098	U	ng/L	P389780	
		Fludioxonil**	0.12	U	ng/L	P389780	
		Flumioxazin**	1.7	U	ng/L	P389780	
		Flutolanil**	0.098	U	ng/L	P389780	
		Fluxapyroxad**	0.098	U	ng/L	P389780	
		Fonofos	0.20	U	ng/L	P389780	
		Hexazinone	0.49	U	ng/L	P389780	
		Imazalil**	0.74	U	ng/L	P389780	
		Iprodione**	0.59	U	ng/L	P389780	
		Malathion	0.34	U	ng/L	P389780	
		Metalaxyl	0.74	U	ng/L	P389780	
		Metolachlor	0.49	U	ng/L	P389780	
		Metribuzin	3.2	U	ng/L	P389780	
		Mevinphos	0.49	U	ng/L	P389780	
		Molinate	0.30	U	ng/L	P389780	
		Myclobutanil**	0.25	U	ng/L	P389780	
		Naled**	1.5	U	ng/L	P389780	
		Norflurazon	0.49	U	ng/L	P389780	
		Oxadiazon	0.098	U	ng/L	P389780	
		Parathion Ethyl	0.25	U	ng/L	P389780	
		Parathion Methyl	0.54	U	ng/L	P389780	
		Pendimethalin	0.98	U	ng/L	P389780	
		Phorate	0.25	U	ng/L	P389780	
		Prodiamine**	0.17	U	ng/L	P389780	
		Prometon	0.89	U	ng/L	P389780	
		Prometryn	0.20	U	ng/L	P389780	
		Pronamide**	0.15	U	ng/L	P389780	
		Propiconazole**	0.49	U	ng/L	P389780	
		Pyriproxyfen**	0.12	U	ng/L	P389780	
		Simazine	0.49	U	ng/L	P389780	
		Sulfentrazone**	0.49	U	ng/L	P389780	
		Tebuconazole**	0.49	U	ng/L	P389780	
		Terbufos	0.098	U	ng/L	P389780	
		Terbuthylazine	0.42	U	ng/L	P389780	
	EPA 8270E dissolved	Oxyfluorfen**	0.15	U	ng/L	P389780	

Field ID: 19010048 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 11/23/2020.
EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.
EPA 8270E dissolved: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.

Sample Location: Calkins At Turner Cemetary Rd **Collection Date/Time: 11/04/2020 11:00**

Field ID: 19010076 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2206533	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P389827	
	EPA 300.0 Rev. 2.1	Chloride	9.1		mg Cl/L	P390001	
		Sulfate	0.54		mg SO4/L	P390003	
	SM 2120 B-2011	Color (true)	320		PCU	P389823	
	SM 2320 B-2011	Total Alkalinity	7.2		mg CaCO3/L	P389921	
	SM 2540 C-2011	TDS	102		mg/L	P390114	
	SM 2540 D-2011	TSS	2	U	mg/L	P389985	
	SM 4500 F-C-2011	Fluoride	0.041	I	mg F/L	P390099	
2206535	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P389894	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P389866	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P389862	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P389875	
	SM 5310 B-2011	Organic Carbon	30		mg C/L	P389908	
2206537	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P389841	
2206554	EPA 8321B	2,4-D	0.0020	U	ug/L	P389930	
		Acesulfame K**	0.10	U	ug/L	P389918	
		AMPA**	0.10	U	ug/L	P389918	
		Sucralose**	0.010	U	ug/L	P389918	
		Acetaminophen**	0.0080	U	ug/L	P389930	
		Acetamiprid**	0.0020	U	ug/L	P389930	
		Endothall**	0.25	U	ug/L	P389918	
		Glufosinate**	0.10	U	ug/L	P389918	
		Glyphosate**	0.10	U	ug/L	P389918	
		Afidopyropen**	0.0020	U	ug/L	P389930	
		Bentazon	8.0E-04	U	ug/L	P389930	
		Benzovindiflupyr**	0.0020	U	ug/L	P389930	
		Carbamazepine**	8.0E-04	U	ug/L	P389930	
		Clothianidin**	0.0020	U	ug/L	P389930	
		Dinotefuran**	0.0020	U	ug/L	P389930	
		Diuron	0.0020	UJ	ug/L	P389930	MS, SUR
		Fenuron	0.016	UJ	ug/L	P389930	SUR
		Fluridone**	8.0E-04	UJ	ug/L	P389930	SUR
		Imazapyr**	0.20		ug/L	P389930	
		Hydrocodone**	0.0020	U	ug/L	P389930	
		Ibuprofen**	0.020	U	ug/L	P389930	
		Imidacloprid	0.0020	UJ	ug/L	P389930	SUR
		Linuron	0.0040	UJ	ug/L	P389930	SUR
		Mandestrobin**	0.0020	U	ug/L	P389930	
		MCPP	0.0020	U	ug/L	P389930	
		Naproxen**	0.0080	U	ug/L	P389930	MS
		Primidone**	0.0040	U	ug/L	P389930	
		Pyraclostrobin**	0.0020	UJ	ug/L	P389930	SUR
		Thiamethoxam**	0.0020	U	ug/L	P389930	

Field ID: 19010076 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2206554	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389930	
		Triclopyr**	0.0040	U	ug/L	P389930	
2206556	EPA 200.7 Rev. 4.4	Barium	19.1		ug/L	P389819	
		Calcium	4.14		mg/L	P389819	
		Iron	1.32E+03		ug/L	P389819	
		Magnesium	2.27		mg/L	P389819	
		Potassium	0.32	I	mg/L	P389819	
		Sodium	4.7		mg/L	P389819	
		Zinc	5.0	U	ug/L	P389819	
	EPA 200.8 Rev. 5.4	Aluminum	412		ug/L	P389819	
		Antimony	0.050	U	ug/L	P389819	
		Arsenic	0.40		ug/L	P389819	
		Beryllium	0.035	I	ug/L	P389819	
		Boron**	14.9		ug/L	P389819	
		Cadmium	0.020	U	ug/L	P389819	
		Chromium	0.60	I	ug/L	P389819	
		Copper	0.40	U	ug/L	P389819	
		Lead	0.47		ug/L	P389819	
		Nickel	0.67	I	ug/L	P389819	
		Selenium	0.20	U	ug/L	P389819	
		Silver	0.010	U	ug/L	P389819	
		Thallium	0.10	U	ug/L	P389819	
	SM 2340B	Hardness	19.7		mg/L	P389819	
2206558	EPA 8270E	Acetochlor	0.24	U	ng/L	P389780	
		Alachlor	0.24	U	ng/L	P389780	
		Ametryn	0.57	U	ng/L	P389780	
		Atrazine	0.24	U	ng/L	P389780	
		Atrazine Desethyl	1.4	U	ng/L	P389780	
		Azinphos Methyl	1.9	U	ng/L	P389780	
		Azoxystrobin**	0.47	U	ng/L	P389780	
		Bromacil	0.47	U	ng/L	P389780	
		Butylate	0.38	U	ng/L	P389780	
		Carbophenothion	0.47	U	ng/L	P389780	
		Carfentrazone Ethyl**	0.095	U	ng/L	P389780	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P389780	
		Chlorpyrifos Methyl	0.047	U	ng/L	P389780	
		Cyanazine	3.1	U	ng/L	P389780	
		Demeton	1.4	U	ng/L	P389780	
		Diazinon	0.12	U	ng/L	P389780	
		Difenoconazole**	0.57	U	ng/L	P389780	
		Dimethenamid**	0.095	U	ng/L	P389780	
		Disulfoton	0.47	U	ng/L	P389780	
		Dithiopyr**	0.095	U	ng/L	P389780	
		EPTC	1.2	U	ng/L	P389780	
		Ethion	0.14	U	ng/L	P389780	

Field ID: 19010076 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2206558	EPA 8270E	Ethoprop	0.095	U	ng/L	P389780	
		Fenamiphos	0.47	U	ng/L	P389780	
		Fenbuconazole**	0.12	U	ng/L	P389780	
		Fipronil	0.24	U	ng/L	P389780	
		Fipronil Desulfinyl**	0.12	U	ng/L	P389780	
		Fipronil Sulfide	0.14	U	ng/L	P389780	
		Fipronil Sulfone	0.14	U	ng/L	P389780	
		Fluazifop-P-butyl**	0.095	U	ng/L	P389780	
		Fludioxonil**	0.12	U	ng/L	P389780	
		Flumioxazin**	1.7	U	ng/L	P389780	
		Flutolanil**	0.095	U	ng/L	P389780	
		Fluxapyroxad**	0.095	U	ng/L	P389780	
		Fonofos	0.19	U	ng/L	P389780	
		Hexazinone	0.47	U	ng/L	P389780	
		Imazalil**	0.71	U	ng/L	P389780	
		Iprodione**	0.57	U	ng/L	P389780	
		Malathion	0.33	U	ng/L	P389780	
		Metalaxyl	0.71	U	ng/L	P389780	
		Metolachlor	0.47	U	ng/L	P389780	
		Metribuzin	3.1	U	ng/L	P389780	
		Mevinphos	0.47	U	ng/L	P389780	
		Molinate	0.28	U	ng/L	P389780	
		Myclobutanil**	0.24	U	ng/L	P389780	
		Naled**	1.4	U	ng/L	P389780	
		Norflurazon	0.47	U	ng/L	P389780	
		Oxadiazon	0.095	U	ng/L	P389780	
		Parathion Ethyl	0.24	U	ng/L	P389780	
		Parathion Methyl	0.52	U	ng/L	P389780	
		Pendimethalin	0.95	U	ng/L	P389780	
		Phorate	0.24	U	ng/L	P389780	
		Prodiamine**	0.17	U	ng/L	P389780	
		Prometon	0.85	U	ng/L	P389780	
		Prometryn	0.19	U	ng/L	P389780	
		Pronamide**	0.14	U	ng/L	P389780	
		Propiconazole**	0.47	U	ng/L	P389780	
		Pyriproxyfen**	0.12	U	ng/L	P389780	
		Simazine	0.47	U	ng/L	P389780	
		Sulfentrazone**	0.47	U	ng/L	P389780	
		Tebuconazole**	0.47	U	ng/L	P389780	
		Terbufos	0.095	U	ng/L	P389780	
		Terbuthylazine	0.40	U	ng/L	P389780	
	EPA 8270E dissolved	Oxyfluorfen**	0.14	U	ng/L	P389780	

Field ID: 19010076 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low 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. Surrogate spike recovery exceeding the control limits. Results confirmed in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.
EPA 8270E dissolved: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389827

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P389819

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: P389819

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	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: P390001

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390003

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389894

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: P389866

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389862

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389875

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389841

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

Reference Method: EPA 8270E
Batch ID: P389780

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
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	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
Difenoconazole	0.60	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
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P389780

Component	Result	Code	Units
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	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
Myclobutanil	0.25	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
Pyriproxyfen	0.12	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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E dissolved
Batch ID: P389780

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L

Reference Method: EPA 8321B
Batch ID: P389732

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P389732

Component	Result	Code	Units
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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P389918

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: P389930

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P389930

Component	Result	Code	Units
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P389823

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P389921

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

Reference Method: SM 2540 C-2011
Batch ID: P390114

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389985

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P390099

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P389908

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: P389819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	100		P	85 - 115
Calcium	105		P	85 - 115
Iron	104		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	102		P	85 - 115
Sodium	101		P	85 - 115
Zinc	96.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	104		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	103		P	85 - 115
Beryllium	101		P	85 - 115
Boron	102		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	102		P	85 - 115
Copper	101		P	85 - 115
Lead	105		P	85 - 115
Nickel	101		P	85 - 115
Selenium	100		P	85 - 115
Silver	108		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390001

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390003

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389894

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389866

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389875

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: P389841

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

Reference Method: EPA 8270E
Batch ID: P389780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	108	109	P/P	71 - 122
Alachlor	106	105	P/P	70 - 121
Ametryn	111	109	P/P	49 - 137
Atrazine	98.2	94.3	P/P	76 - 125
Atrazine Desethyl	97.5	92.7	P/P	31 - 144
Azinphos Methyl	129	124	P/P	67 - 150
Azoxystrobin	112	114	P/P	70 - 170
Bromacil	102	87.7	P/P	36 - 121
Butylate	67.6	84.1	P/P	33 - 88.0
Carbophenothion	84.8	82.6	P/P	66 - 116
Carfentrazone Ethyl	112	114	P/P	50 - 150
Chlorpyrifos Ethyl	93.4	88.2	P/P	73 - 117
Chlorpyrifos Methyl	106	98.2	P/P	68 - 121
Cyanazine	139	143	P/P	20 - 250
Demeton	104	78.3	P/P	30 - 123
Diazinon	112	112	P/P	70 - 128
Difenoconazole	121	116	P/P	50 - 150
Dimethenamid	103	105	P/P	66 - 122
Disulfoton	93.4	87.2	P/P	46 - 124
Dithiopyr	101	104	P/P	69 - 122
EPTC	65.4	70.3	P/P	31 - 90.0
Ethion	71.9	73.2	P/P	45 - 135
Ethoprop	101	94.2	P/P	59 - 118
Fenamiphos	103	88.3	P/P	30 - 136
Fenbuconazole	103	99.2	P/P	50 - 150
Fipronil	107	105	P/P	57 - 127
Fipronil Desulfinyl	95.9	94.3	P/P	51 - 122
Fipronil Sulfide	92.8	82.3	P/P	57 - 119
Fipronil Sulfone	93.5	81.0	P/P	51 - 119
Fluazifop-P-butyl	95.7	103	P/P	50 - 150
Fludioxonil	97.9	93.2	P/P	50 - 150
Flumioxazin	142	154	P/P	20 - 250
Flutolanil	105	91.3	P/P	50 - 150
Fluxapyroxad	94.4	92.8	P/P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P389780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fonofos	95.5	88.4	P/P	60 - 120
Hexazinone	89.7	86.6	P/P	57 - 142
Imazalil	111	99.7	P/P	30 - 139
Iprodione	92.6	96.2	P/P	50 - 150
Malathion	94.9	79.3	P/P	67 - 128
Metalaxyl	98.0	100	P/P	21 - 148
Metolachlor	102	97.9	P/P	70 - 120
Metribuzin	112	105	P/P	20 - 250
Mevinphos	91.4	81.0	P/P	47 - 116
Molinate	80.2	77.5	P/P	41 - 99.0
Myclobutanil	101	97.1	P/P	50 - 150
Naled	51.0	46.3	P/P	38 - 97.0
Norflurazon	97.5	94.9	P/P	54 - 127
Oxadiazon	90.1	92.6	P/P	65 - 122
Parathion Ethyl	91.7	89.2	P/P	71 - 113
Parathion Methyl	102	108	P/P	73 - 129
Pendimethalin	90.4	97.4	P/P	63 - 130
Phorate	81.4	78.0	P/P	48 - 118
Prodiamine	71.8	69.9	P/P	20 - 144
Prometon	99.2	95.4	P/P	53 - 120
Prometryn	108	106	P/P	63 - 119
Pronamide	102	101	P/P	81 - 122
Propiconazole	108	111	P/P	62 - 124
Pyriproxyfen	109	118	P/P	50 - 150
Simazine	111	109	P/P	77 - 129
Sulfentrazone	73.6	76.5	P/P	20 - 137
Tebuconazole	66.6	68.7	P/P	20 - 118
Terbufos	90.5	85.9	P/P	61 - 119
Terbuthylazine	96.1	94.8	P/P	75 - 119

Reference Method: EPA 8270E dissolved
Batch ID: P389780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxyfluorfen	114	118	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P389732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	60.8		P	30 - 160
Acetaminophen	54.2		P	30 - 160
Acetamiprid	71.9		P	30 - 160
Afidopyropen	51.4		P	30 - 160
Bentazon	41.8		P	30 - 160
Benzovindiflupyr	56.7		P	30 - 160
Carbamazepine	62.2		P	30 - 160
Clothianidin	88.4		P	30 - 160
Dinotefuran	82.3		P	30 - 160
Diuron	53.8		P	30 - 160
Fenuron	112		P	30 - 160
Fluridone	66.7		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P389732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hydrocodone	64.6		P	30 - 160
Ibuprofen	81.1		P	30 - 160
Imazapyr	78.6		P	30 - 160
Imidacloprid	86.5		P	30 - 160
Linuron	68.9		P	30 - 160
Mandestrobin	64.2		P	30 - 160
MCPP	65.9		P	30 - 160
Naproxen	48.6		P	30 - 160
Primidone	85.8		P	30 - 160
Pyraclostrobin	47.3		P	30 - 160
Thiamethoxam	83.2		P	30 - 160
Tolfenpyrad	33.7		P	30 - 160
Triclopyr	64.1		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	136		P	40 - 150
AMPA	100		P	40 - 150
Endothall	94.0		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	103		P	40 - 140
Sucralose	129		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P389930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	42.8		P	30 - 160
Acetaminophen	45.3		P	30 - 160
Acetamiprid	58.7		P	30 - 160
Afidopyropen	35.8		P	30 - 160
Bentazon	41.9		P	30 - 160
Benzovindiflupyr	58.6		P	30 - 160
Carbamazepine	52.4		P	30 - 160
Clothianidin	67.0		P	30 - 160
Dinotefuran	69.8		P	30 - 160
Diuron	61.0		P	30 - 160
Fenuron	84.4		P	30 - 160
Fluridone	53.1		P	30 - 160
Hydrocodone	66.8		P	30 - 160
Ibuprofen	57.8		P	30 - 160
Imazapyr	76.5		P	30 - 160
Imidacloprid	73.9		P	30 - 160
Linuron	85.4		P	30 - 160
Mandestrobin	66.5		P	30 - 160
MCPP	52.0		P	30 - 160
Naproxen	43.8		P	30 - 160
Primidone	78.2		P	30 - 160
Pyraclostrobin	47.0		P	30 - 160
Thiamethoxam	70.1		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P389930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Tolfenpyrad	30.1		P	30 - 160
Triclopyr	42.0		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P389823

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P389921

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.9		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P390099

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.4		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P389908

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P389819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206435	Barium	98.1	103	P/P	80 - 120
2206435	Calcium	102	107	P/P	80 - 120
2206435	Iron	103	108	P/P	80 - 120
2206435	Magnesium	104	108	P/P	80 - 120
2206435	Potassium	102	106	P/P	80 - 120
2206435	Sodium	102	104	P/P	80 - 120
2206435	Zinc	95.6	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206435	Aluminum	101	98.8	P/P	80 - 120
2206435	Antimony	101	100	P/P	80 - 120
2206435	Arsenic	103	101	P/P	80 - 120
2206435	Beryllium	99.2	97.9	P/P	80 - 120
2206435	Boron	98.3	98.1	P/P	80 - 120
2206435	Cadmium	100	98.9	P/P	80 - 120
2206435	Chromium	101	99.2	P/P	80 - 120
2206435	Copper	103	100	P/P	80 - 120
2206435	Lead	104	102	P/P	80 - 120
2206435	Nickel	103	101	P/P	80 - 120
2206435	Selenium	100	98.8	P/P	80 - 120
2206435	Silver	109	107	P/P	80 - 120
2206435	Thallium	103	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206419	Chloride	97.9		P	90 - 110
2206641	Chloride	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206419	Sulfate	98.7		P	90 - 110
2206641	Sulfate	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206642	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206490	Kjeldahl Nitrogen	105	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206444	NO2NO3-N	98.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389875

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206420	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206643	O-Phosphate-P	101	102	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P389780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206381	Acetochlor	110	116	P/P	68 - 126
2206381	Alachlor	101	102	P/P	66 - 125
2206381	Ametryn	117	121	P/P	31 - 182
2206381	Atrazine Desethyl	91.6	92.3	P/P	13 - 161
2206381	Azinphos Methyl	124	139	P/P	54 - 162
2206381	Azoxystrobin	107	116	P/P	70 - 170
2206381	Butylate	72.5	85.7	P/P	16 - 92.0
2206381	Carbophenothion	86.4	85.2	P/P	30 - 131
2206381	Carfentrazone Ethyl	114	116	P/P	50 - 150
2206381	Chlorpyrifos Ethyl	94.2	97.2	P/P	63 - 124
2206381	Chlorpyrifos Methyl	102	98.8	P/P	64 - 125
2206381	Cyanazine	133	143	P/P	13 - 245
2206381	Demeton	79.8	80.5	P/P	20 - 154
2206381	Diazinon	108	122	P/P	66 - 141
2206381	Difenoconazole	130	134	P/P	50 - 150
2206381	Dimethenamid	99.9	109	P/P	50 - 130
2206381	Disulfoton	88.4	90.0	P/P	55 - 130
2206381	Dithiopyr	101	109	P/P	66 - 122
2206381	EPTC	68.2	69.5	P/P	15 - 93.0
2206381	Ethion	73.7	79.8	P/P	15 - 148
2206381	Ethoprop	102	102	P/P	59 - 126
2206381	Fenamiphos	71.5	81.3	P/P	39 - 137
2206381	Fenbuconazole	105	110	P/P	50 - 150
2206381	Fipronil	108	114	P/P	47 - 131
2206381	Fipronil Desulfinyl	96.9	105	P/P	43 - 121
2206381	Fipronil Sulfide	93.5	86.1	P/P	29 - 134
2206381	Fipronil Sulfone	94.6	78.9	P/P	19 - 131
2206381	Fluazifop-P-butyl	101	107	P/P	50 - 150
2206381	Fludioxonil	93.7	96.2	P/P	50 - 150
2206381	Flumioxazin	168	174	P/P	10 - 300
2206381	Flutolanil	93.6	96.2	P/P	50 - 150
2206381	Fluxapyroxad	92.1	98.8	P/P	50 - 150
2206381	Fonofos	93.2	92.2	P/P	62 - 128
2206381	Hexazinone	88.9	95.1	P/P	58 - 154

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P389780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206381	Imazalil	93.8	96.6	P/P	10 - 215
2206381	Iprodione	97.0	100	P/P	50 - 150
2206381	Malathion	92.0	83.3	P/P	54 - 135
2206381	Metalaxyl	98.8	101	P/P	46 - 136
2206381	Metolachlor	96.5	101	P/P	62 - 126
2206381	Metribuzin	106	106	P/P	44 - 277
2206381	Mevinphos	87.6	82.5	P/P	44 - 135
2206381	Molinate	81.1	84.4	P/P	31 - 104
2206381	Myclobutanil	103	109	P/P	50 - 150
2206381	Naled	48.1	47.1	P/P	33 - 113
2206381	Norflurazon	96.5	101	P/P	32 - 134
2206381	Oxadiazon	92.3	98.5	P/P	55 - 123
2206381	Parathion Ethyl	98.1	99.4	P/P	67 - 120
2206381	Parathion Methyl	104	108	P/P	70 - 140
2206381	Pendimethalin	104	109	P/P	59 - 145
2206381	Phorate	79.3	80.5	P/P	52 - 127
2206381	Prodiamine	88.5	92.9	P/P	11 - 157
2206381	Prometon	90.4	102	P/P	55 - 130
2206381	Prometryn	110	116	P/P	55 - 127
2206381	Pronamide	94.2	108	P/P	66 - 150
2206381	Propiconazole	123	131	P/P	14 - 178
2206381	Pyriproxyfen	104	116	P/P	50 - 150
2206381	Sulfentrazone	114	97.2	P/P	21 - 144
2206381	Tebuconazole	65.4	74.7	P/P	10 - 122
2206381	Terbufos	91.5	93.9	P/P	65 - 131
2206381	Terbuthylazine	96.1	106	P/P	63 - 131

Reference Method: EPA 8270E dissolved
Batch ID: P389780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206381	Oxyfluorfen	128	138	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P389732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206319	2,4-D	55.3	55.1	P/P	30 - 160
2206319	Acetaminophen	34.5	40.1	P/P	30 - 160
2206319	Acetamiprid	56.1	47.3	P/P	30 - 160
2206319	Afidopyropen	43.5	35.2	P/P	30 - 160
2206319	Benzovindiflupyr	54.1	53.0	P/P	30 - 160
2206319	Carbamazepine	54.0	47.3	P/P	30 - 160
2206319	Clothianidin	56.5	59.6	P/P	30 - 160
2206319	Dinotefuran	47.2	53.9	P/P	30 - 160
2206319	Diuron	36.5	35.9	P/P	30 - 160
2206319	Fenuron	60.4	57.8	P/P	30 - 160
2206319	Fluridone	61.3	56.5	P/P	30 - 160
2206319	Hydrocodone	55.6	62.6	P/P	30 - 160
2206319	Ibuprofen	68.0	55.2	P/P	30 - 160
2206319	Imazapyr	78.7	72.7	P/P	30 - 160
2206319	Linuron	65.8	63.1	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P389732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206319	Mandestrobin	59.1	58.4	P/P	30 - 160
2206319	MCPP	59.4	56.3	P/P	30 - 160
2206319	Naproxen	45.4	50.3	P/P	30 - 160
2206319	Primidone	66.7	72.9	P/P	30 - 160
2206319	Pyraclostrobin	48.5	47.3	P/P	30 - 160
2206319	Thiamethoxam	75.7	72.9	P/P	30 - 160
2206319	Tolfenpyrad	47.7	41.2	P/P	30 - 160
2206319	Triclopyr	47.7	51.8	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206526	Acesulfame K	51.2	45.8	P/P	40 - 150
2206526	AMPA	70.6	66.2	P/P	40 - 150
2206526	Endothall	115	121	P/P	40 - 150
2206526	Glufosinate	101	94.6	P/P	40 - 150
2206526	Glyphosate	100	91.2	P/P	40 - 140
2206526	Sucralose	57.0	55.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P389930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206563	2,4-D	45.3	42.1	P/P	30 - 160
2206563	Acetaminophen	47.5	49.5	P/P	30 - 160
2206563	Acetamiprid	34.6	34.2	P/P	30 - 160
2206563	Afidopyropen	38.1	35.8	P/P	30 - 160
2206563	Benzovindiflupyr	51.8	56.5	P/P	30 - 160
2206563	Carbamazepine	45.4	44.3	P/P	30 - 160
2206563	Clothianidin	30.7	31.2	P/P	30 - 160
2206563	Dinotefuran	61.5	61.4	P/P	30 - 160
2206563	Diuron	29.0	26.6	F/F	30 - 160
2206563	Fenuron	34.9	33.6	P/P	30 - 160
2206563	Fluridone	50.0	69.2	P/P	30 - 160
2206563	Hydrocodone	48.6	50.9	P/P	30 - 160
2206563	Ibuprofen	48.7	43.4	P/P	30 - 160
2206563	Imidacloprid	77.5	74.9	P/P	30 - 160
2206563	Linuron	60.3	57.6	P/P	30 - 160
2206563	Mandestrobin	60.2	57.3	P/P	30 - 160
2206563	MCPP	49.4	46.6	P/P	30 - 160
2206563	Naproxen	254	215	F/F	30 - 160
2206563	Primidone	43.3	46.5	P/P	30 - 160
2206563	Pyraclostrobin	52.8	50.1	P/P	30 - 160
2206563	Thiamethoxam	54.7	52.5	P/P	30 - 160
2206563	Tolfenpyrad	41.6	38.2	P/P	30 - 160
2206563	Triclopyr	56.0	48.8	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P390099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P390099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206538	Fluoride	97.6	98.8	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P389908

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2206539	Organic Carbon	102	102	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206519	Turbidity	1.27	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P389819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206435	Barium	5.03	Spike	P	0 - 20
2206435	Calcium	3.91	Spike	P	0 - 20
2206435	Iron	4.37	Spike	P	0 - 20
2206435	Magnesium	3.67	Spike	P	0 - 20
2206435	Potassium	3.66	Spike	P	0 - 20
2206435	Sodium	1.44	Spike	P	0 - 20
2206435	Zinc	6.12	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206435	Aluminum	2.57	Spike	P	0 - 20
2206435	Antimony	1.22	Spike	P	0 - 20
2206435	Arsenic	1.93	Spike	P	0 - 20
2206435	Beryllium	1.15	Spike	P	0 - 20
2206435	Boron	0.178	Spike	P	0 - 20
2206435	Cadmium	1.10	Spike	P	0 - 20
2206435	Chromium	2.28	Spike	P	0 - 20
2206435	Copper	1.77	Spike	P	0 - 20
2206435	Lead	1.99	Spike	P	0 - 20
2206435	Nickel	1.80	Spike	P	0 - 20
2206435	Selenium	1.68	Spike	P	0 - 20
2206435	Silver	1.60	Spike	P	0 - 20
2206435	Thallium	1.28	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206419	Chloride	0.0652	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206642	Ammonia-N	1.14	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206490	Kjeldahl Nitrogen	1.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206444	NO2NO3-N	1.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206420	Total-P	0.193	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206643	O-Phosphate-P	0.987	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P389780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206381	Acetochlor	5.50	Spike	P	0 - 30
2206381	Alachlor	0.906	Spike	P	0 - 30
2206381	Ametryn	3.42	Spike	P	0 - 30
2206381	Atrazine	4.55	Spike	P	0 - 30
2206381	Atrazine Desethyl	0.541	Spike	P	0 - 30
2206381	Azinphos Methyl	10.8	Spike	P	0 - 30
2206381	Azoxystrobin	8.02	Spike	P	0 - 30
2206381	Bromacil	3.19	Spike	P	0 - 30
2206381	Butylate	16.7	Spike	P	0 - 30
2206381	Carbophenothion	1.39	Spike	P	0 - 30
2206381	Carfentrazone Ethyl	1.98	Spike	P	0 - 30
2206381	Chlorpyrifos Ethyl	3.16	Spike	P	0 - 30
2206381	Chlorpyrifos Methyl	3.02	Spike	P	0 - 30
2206381	Cyanazine	7.29	Spike	P	0 - 30
2206381	Demeton	0.846	Spike	P	0 - 30
2206381	Diazinon	12.0	Spike	P	0 - 30
2206381	Difenoconazole	2.32	Spike	P	0 - 30
2206381	Dimethenamid	8.50	Spike	P	0 - 30
2206381	Disulfoton	1.74	Spike	P	0 - 30
2206381	Dithiopyr	7.65	Spike	P	0 - 30
2206381	EPTC	1.86	Spike	P	0 - 30
2206381	Ethion	8.02	Spike	P	0 - 30
2206381	Ethoprop	0.0751	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P389780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206381	Fenamiphos	12.8	Spike	P	0 - 30
2206381	Fenbuconazole	4.71	Spike	P	0 - 30
2206381	Fipronil	4.51	Spike	P	0 - 30
2206381	Fipronil Desulfinyl	6.86	Spike	P	0 - 30
2206381	Fipronil Sulfide	6.68	Spike	P	0 - 30
2206381	Fipronil Sulfone	7.85	Spike	P	0 - 30
2206381	Fluazifop-P-butyl	6.28	Spike	P	0 - 30
2206381	Fludioxonil	2.65	Spike	P	0 - 30
2206381	Flumioxazin	3.17	Spike	P	0 - 30
2206381	Flutolanil	2.49	Spike	P	0 - 30
2206381	Fluxapyroxad	6.75	Spike	P	0 - 30
2206381	Fonofos	1.07	Spike	P	0 - 30
2206381	Hexazinone	6.04	Spike	P	0 - 30
2206381	Imazalil	2.98	Spike	P	0 - 30
2206381	Iprodione	3.53	Spike	P	0 - 30
2206381	Malathion	9.98	Spike	P	0 - 30
2206381	Metalaxyl	2.27	Spike	P	0 - 30
2206381	Metolachlor	4.16	Spike	P	0 - 30
2206381	Metribuzin	0.256	Spike	P	0 - 30
2206381	Mevinphos	5.94	Spike	P	0 - 30
2206381	Molinate	3.96	Spike	P	0 - 30
2206381	Myclobutanil	5.61	Spike	P	0 - 30
2206381	Naled	2.03	Spike	P	0 - 30
2206381	Norflurazon	4.97	Spike	P	0 - 30
2206381	Oxadiazon	6.42	Spike	P	0 - 30
2206381	Parathion Ethyl	1.31	Spike	P	0 - 30
2206381	Parathion Methyl	3.94	Spike	P	0 - 30
2206381	Pendimethalin	5.29	Spike	P	0 - 30
2206381	Phorate	1.49	Spike	P	0 - 30
2206381	Prodiamine	4.84	Spike	P	0 - 30
2206381	Prometon	10.6	Spike	P	0 - 30
2206381	Prometryn	5.29	Spike	P	0 - 30
2206381	Pronamide	13.7	Spike	P	0 - 30
2206381	Propiconazole	6.11	Spike	P	0 - 30
2206381	Pyriproxyfen	10.8	Spike	P	0 - 30
2206381	Simazine	10.5	Spike	P	0 - 30
2206381	Sulfentrazone	16.3	Spike	P	0 - 30
2206381	Tebuconazole	11.9	Spike	P	0 - 30
2206381	Terbufos	2.55	Spike	P	0 - 30
2206381	Terbuthylazine	10.3	Spike	P	0 - 30
LFB	Acetochlor	1.27	LCS	P	0 - 30
LFB	Alachlor	0.814	LCS	P	0 - 30
LFB	Ametryn	1.74	LCS	P	0 - 30
LFB	Atrazine	4.00	LCS	P	0 - 30
LFB	Atrazine Desethyl	4.98	LCS	P	0 - 30
LFB	Azinphos Methyl	3.87	LCS	P	0 - 30
LFB	Azoxystrobin	2.40	LCS	P	0 - 30
LFB	Bromacil	14.6	LCS	P	0 - 30
LFB	Butylate	21.7	LCS	P	0 - 30
LFB	Carbophenothion	2.68	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	1.75	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P389780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlorpyrifos Ethyl	5.74	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.84	LCS	P	0 - 30
LFB	Cyanazine	2.92	LCS	P	0 - 30
LFB	Demeton	28.6	LCS	P	0 - 30
LFB	Diazinon	0.182	LCS	P	0 - 30
LFB	Difenoconazole	4.06	LCS	P	0 - 30
LFB	Dimethenamid	2.13	LCS	P	0 - 30
LFB	Disulfoton	6.86	LCS	P	0 - 30
LFB	Dithiopyr	3.11	LCS	P	0 - 30
LFB	EPTC	7.28	LCS	P	0 - 30
LFB	Ethion	1.83	LCS	P	0 - 30
LFB	Ethoprop	7.42	LCS	P	0 - 30
LFB	Fenamiphos	15.2	LCS	P	0 - 30
LFB	Fenbuconazole	3.36	LCS	P	0 - 30
LFB	Fipronil	1.95	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.64	LCS	P	0 - 30
LFB	Fipronil Sulfide	12.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	14.4	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	7.05	LCS	P	0 - 30
LFB	Fludioxonil	4.96	LCS	P	0 - 30
LFB	Flumioxazin	7.51	LCS	P	0 - 30
LFB	Flutolanil	13.5	LCS	P	0 - 30
LFB	Fluxapyroxad	1.63	LCS	P	0 - 30
LFB	Fonofos	7.72	LCS	P	0 - 30
LFB	Hexazinone	3.55	LCS	P	0 - 30
LFB	Imazalil	10.9	LCS	P	0 - 30
LFB	Iprodione	3.90	LCS	P	0 - 30
LFB	Malathion	17.9	LCS	P	0 - 30
LFB	Metalaxyl	2.01	LCS	P	0 - 30
LFB	Metolachlor	3.98	LCS	P	0 - 30
LFB	Metribuzin	5.96	LCS	P	0 - 30
LFB	Mevinphos	12.2	LCS	P	0 - 30
LFB	Molinate	3.44	LCS	P	0 - 30
LFB	Myclobutanil	3.62	LCS	P	0 - 30
LFB	Naled	9.64	LCS	P	0 - 30
LFB	Norflurazon	2.76	LCS	P	0 - 30
LFB	Oxadiazon	2.77	LCS	P	0 - 30
LFB	Parathion Ethyl	2.85	LCS	P	0 - 30
LFB	Parathion Methyl	5.04	LCS	P	0 - 30
LFB	Pendimethalin	7.42	LCS	P	0 - 30
LFB	Phorate	4.29	LCS	P	0 - 30
LFB	Prodiamine	2.73	LCS	P	0 - 30
LFB	Prometon	3.87	LCS	P	0 - 30
LFB	Prometryn	2.36	LCS	P	0 - 30
LFB	Pronamide	0.932	LCS	P	0 - 30
LFB	Propiconazole	2.81	LCS	P	0 - 30
LFB	Pyriproxyfen	8.28	LCS	P	0 - 30
LFB	Simazine	1.28	LCS	P	0 - 30
LFB	Sulfentrazone	3.80	LCS	P	0 - 30
LFB	Tebuconazole	3.07	LCS	P	0 - 30
LFB	Terbufos	5.22	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P389780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Terbuthylazine	1.34	LCS	P	0 - 30

Reference Method: EPA 8270E dissolved
Batch ID: P389780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206381	Oxyfluorfen	7.80	Spike	P	0 - 30
LFB	Oxyfluorfen	3.51	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P389732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206319	2,4-D	0.336	Spike	P	0 - 30
2206319	Acetaminophen	15.0	Spike	P	0 - 30
2206319	Acetamiprid	17.1	Spike	P	0 - 30
2206319	Afidopyropen	21.2	Spike	P	0 - 30
2206319	Benzovindiflupyr	2.13	Spike	P	0 - 30
2206319	Carbamazepine	9.73	Spike	P	0 - 30
2206319	Clothianidin	5.22	Spike	P	0 - 30
2206319	Dinotefuran	10.7	Spike	P	0 - 30
2206319	Diuron	1.69	Spike	P	0 - 30
2206319	Fenuron	4.43	Spike	P	0 - 30
2206319	Fluridone	6.37	Spike	P	0 - 30
2206319	Hydrocodone	11.9	Spike	P	0 - 30
2206319	Ibuprofen	20.7	Spike	P	0 - 30
2206319	Imazapyr	4.46	Spike	P	0 - 30
2206319	Imidacloprid	7.08	Spike	P	0 - 30
2206319	Linuron	4.08	Spike	P	0 - 30
2206319	Mandestrobin	1.23	Spike	P	0 - 30
2206319	MCPP	5.42	Spike	P	0 - 30
2206319	Naproxen	10.2	Spike	P	0 - 30
2206319	Primidone	6.47	Spike	P	0 - 30
2206319	Pyraclostrobin	2.60	Spike	P	0 - 30
2206319	Thiamethoxam	3.86	Spike	P	0 - 30
2206319	Tolfenpyrad	14.6	Spike	P	0 - 30
2206319	Triclopyr	8.26	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P389918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206526	Acesulfame K	10.1	Spike	P	0 - 30
2206526	AMPA	4.46	Spike	P	0 - 30
2206526	Endothall	5.06	Spike	P	0 - 30
2206526	Glufosinate	6.41	Spike	P	0 - 30
2206526	Glyphosate	4.26	Spike	P	0 - 30
2206526	Sucralose	2.27	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P389930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206563	2,4-D	4.35	Spike	P	0 - 30
2206563	Acetaminophen	4.07	Spike	P	0 - 30
2206563	Acetamiprid	1.34	Spike	P	0 - 30
2206563	Afidopyropen	6.30	Spike	P	0 - 30
2206563	Bentazon	7.18	Spike	P	0 - 30
2206563	Benzovindiflupyr	8.72	Spike	P	0 - 30
2206563	Carbamazepine	2.34	Spike	P	0 - 30
2206563	Clothianidin	1.39	Spike	P	0 - 30
2206563	Dinotefuran	0.161	Spike	P	0 - 30
2206563	Diuron	8.52	Spike	P	0 - 30
2206563	Fenuron	3.59	Spike	P	0 - 30
2206563	Fluridone	15.4	Spike	P	0 - 30
2206563	Hydrocodone	4.64	Spike	P	0 - 30
2206563	Ibuprofen	11.5	Spike	P	0 - 30
2206563	Imazapyr	1.31	Spike	P	0 - 30
2206563	Imidacloprid	2.76	Spike	P	0 - 30
2206563	Linuron	4.60	Spike	P	0 - 30
2206563	Mandestrobin	4.82	Spike	P	0 - 30
2206563	MCPP	5.93	Spike	P	0 - 30
2206563	Naproxen	16.6	Spike	P	0 - 30
2206563	Primidone	7.30	Spike	P	0 - 30
2206563	Pyraclostrobin	5.11	Spike	P	0 - 30
2206563	Thiamethoxam	3.69	Spike	P	0 - 30
2206563	Tolfenpyrad	8.66	Spike	P	0 - 30
2206563	Triclopyr	13.7	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P389823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206459	Color (true)	0.720	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P389921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206519	Total Alkalinity	0.478	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P390114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206538	TDS	0.669	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P390099

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206538	Fluoride	0.984	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P389908

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2206539	Organic Carbon	0.272	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2206553
Field Sample ID: 19010048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	56.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	48.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.9	P	30 - 160
EPA 8321B	Diuron-d6	35.9	P	30 - 160
EPA 8321B	Endothall-d6	98.3	P	30 - 160
EPA 8321B	Endothall-d6	98.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	56.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	56.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.6	P	30 - 160
EPA 8321B	Primidone-d5	52.2	P	30 - 160
EPA 8321B	Sucralose-d6	67.8	P	30 - 160
EPA 8321B	Sucralose-d6	67.8	P	30 - 160

Lab Sample ID: 2206554
Field Sample ID: 19010076

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	45.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	45.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	33.8	P	30 - 160
EPA 8321B	Diuron-d6	23.8	F	30 - 160
EPA 8321B	Diuron-d6	41.2	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	68.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	68.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	56.3	P	30 - 160
EPA 8321B	Primidone-d5	35.9	P	30 - 160
EPA 8321B	Sucralose-d6	65.0	P	30 - 160
EPA 8321B	Sucralose-d6	65.0	P	30 - 160

Lab Sample ID: 2206557
Field Sample ID: 19010048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	105	P	72 - 135
EPA 8270E	Terbufos-d10	91.0	P	57 - 134
EPA 8270E dissolved	Simazine-d10	105	P	72 - 135
EPA 8270E dissolved	Terbufos-d10	91.0	P	57 - 134

Lab Sample ID: 2206558
Field Sample ID: 19010076

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	107	P	72 - 135
EPA 8270E	Terbufos-d10	95.5	P	57 - 134
EPA 8270E dissolved	Simazine-d10	107	P	72 - 135
EPA 8270E dissolved	Terbufos-d10	95.5	P	57 - 134

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B-2011
Run ID: A101998
Included Lab Sample IDs: 2206532, 2206533

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	105	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A102000
Included Lab Sample IDs: 2206532, 2206533

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	97.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A102001
Included Lab Sample IDs: 2206536, 2206537

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A102010
Included Lab Sample IDs: 2206534, 2206535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A102027
Included Lab Sample IDs: 2206534, 2206535

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A102033
Included Lab Sample IDs: 2206555, 2206556

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.6	99.4	P/P	90 - 110
Calcium	102	102	P/P	90 - 110
Iron	103	102	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	103	100	P/P	90 - 110
Sodium	103	102	P/P	90 - 110
Zinc	100	101	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A102035
Included Lab Sample IDs: 2206534, 2206535

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A102036
Included Lab Sample IDs: 2206553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	104	P/P	50 - 150
Acetaminophen	109	109	P/P	60 - 160
Acetamiprid	107	114	P/P	50 - 150
Afidopyropen	88.1	81.5	P/P	50 - 150
Bentazon	78.9	85.4	P/P	50 - 160
Benzovindiflupyr	105	108	P/P	50 - 150
Carbamazepine	92.1	93.0	P/P	60 - 150
Clothianidin	102	114	P/P	60 - 150
Dinotefuran	101	99.5	P/P	50 - 150
Diuron	80.8	87.0	P/P	60 - 160
Fenuron	111	113	P/P	60 - 150
Fluridone	96.1	99.1	P/P	60 - 160
Hydrocodone	109	109	P/P	60 - 150
Ibuprofen	87.2	97.9	P/P	50 - 160
Imazapyr	106	103	P/P	50 - 160
Imidacloprid	101	85.2	P/P	60 - 150
Linuron	89.6	100	P/P	60 - 150
Mandestrobin	95.5	97.2	P/P	50 - 150
MCPP	98.2	90.7	P/P	50 - 150
Naproxen	90.9	130	P/P	50 - 160
Primidone	102	109	P/P	60 - 150
Pyraclostrobin	105	111	P/P	60 - 150
Thiamethoxam	108	104	P/P	50 - 150
Tolfenpyrad	150	151*	P/F	60 - 150
Triclopyr	86.7	93.3	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A102049
Included Lab Sample IDs: 2206532, 2206533

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.0	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A102057
Included Lab Sample IDs: 2206534, 2206535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	104	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A102065
Included Lab Sample IDs: 2206532, 2206533

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.4	98.4	P/P	90 - 110
Sulfate	99.8	99.5	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A102076
Included Lab Sample IDs: 2206553, 2206554

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	130	122	P/P	50 - 160
Acesulfame K	159	130	P/P	50 - 160
Endothall	100	93.0	P/P	60 - 160
Endothall	95.2	100	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A102077
Included Lab Sample IDs: 2206553, 2206554

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	64.6	68.2	P/P	50 - 160
AMPA	68.2	60.6	P/P	50 - 160
Glufosinate	80.7	90.2	P/P	50 - 160
Glufosinate	90.2	95.6	P/P	50 - 160
Glyphosate	104	109	P/P	50 - 160
Glyphosate	109	106	P/P	50 - 160

Reference Method: EPA 8270E
Run ID: A102095
Included Lab Sample IDs: 2206557, 2206558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	97.3		P	80 - 120
Ametryn	92.6		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	89.7		P	80 - 120
Azinphos Methyl	95.3		P	80 - 120
Azoxystrobin	91.7		P	80 - 120
Bromacil	93.9		P	80 - 120
Butylate	98.5		P	80 - 120
Carbophenothion	99.0		P	80 - 120
Carfentrazone Ethyl	99.1		P	80 - 120
Chlorpyrifos Ethyl	99.6		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	84.5		P	80 - 120
Demeton	99.7		P	80 - 120
Diazinon	99.1		P	80 - 120
Difenoconazole	95.7		P	80 - 120
Dimethenamid	97.3		P	80 - 120
Disulfoton	93.7		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	97.1		P	80 - 120
Ethion	94.1		P	80 - 120
Ethoprop	108		P	80 - 120
Fenamiphos	98.9		P	80 - 120
Fenbuconazole	94.0		P	80 - 120
Fipronil	98.7		P	80 - 120
Fipronil Desulfinyl	99.2		P	80 - 120
Fipronil Sulfide	91.9		P	80 - 120
Fipronil Sulfone	93.0		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A102095
Included Lab Sample IDs: 2206557, 2206558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluazifop-P-butyl	99.1		P	80 - 120
Fludioxonil	93.4		P	80 - 120
Flumioxazin	96.2		P	80 - 120
Flutolanil	93.3		P	80 - 120
Fluxapyroxad	89.6		P	80 - 120
Fonofos	92.6		P	80 - 120
Hexazinone	93.3		P	80 - 120
Imazalil	89.0		P	80 - 120
Iprodione	98.5		P	80 - 120
Malathion	95.5		P	80 - 120
Metalaxyl	98.6		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	96.0		P	80 - 120
Molinate	97.8		P	80 - 120
Myclobutanil	94.5		P	80 - 120
Naled	98.0		P	80 - 120
Norflurazon	91.3		P	80 - 120
Oxadiazon	98.6		P	80 - 120
Oxyfluorfen	98.7		P	80 - 120
Parathion Ethyl	91.5		P	80 - 120
Parathion Methyl	98.4		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	97.7		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	98.2		P	80 - 120
Pronamide	99.0		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	95.1		P	80 - 120
Sulfentrazone	93.4		P	80 - 120
Tebuconazole	94.2		P	80 - 120
Terbufos	97.3		P	80 - 120
Terbuthylazine	96.4		P	80 - 120

Reference Method: EPA 8270E dissolved
Run ID: A102095
Included Lab Sample IDs: 2206557, 2206558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	97.3		P	80 - 120
Ametryn	92.6		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	89.7		P	80 - 120
Azinphos Methyl	95.3		P	80 - 120
Azoxystrobin	91.7		P	80 - 120
Bromacil	93.9		P	80 - 120
Butylate	98.5		P	80 - 120
Carbophenothion	99.0		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E dissolved
Run ID: A102095
Included Lab Sample IDs: 2206557, 2206558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carfentrazone Ethyl	99.1		P	80 - 120
Chlorpyrifos Ethyl	99.6		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	84.5		P	80 - 120
Demeton	99.7		P	80 - 120
Diazinon	99.1		P	80 - 120
Difenoconazole	95.7		P	80 - 120
Dimethenamid	97.3		P	80 - 120
Disulfoton	93.7		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	97.1		P	80 - 120
Ethion	94.1		P	80 - 120
Ethoprop	108		P	80 - 120
Fenamiphos	98.9		P	80 - 120
Fenbuconazole	94.0		P	80 - 120
Fipronil	98.7		P	80 - 120
Fipronil Desulfinyl	99.2		P	80 - 120
Fipronil Sulfide	91.9		P	80 - 120
Fipronil Sulfone	93.0		P	80 - 120
Fluazifop-P-butyl	99.1		P	80 - 120
Fludioxonil	93.4		P	80 - 120
Flumioxazin	96.2		P	80 - 120
Flutolanil	93.3		P	80 - 120
Fluxapyroxad	89.6		P	80 - 120
Fonofos	92.6		P	80 - 120
Hexazinone	93.3		P	80 - 120
Imazalil	89.0		P	80 - 120
Iprodione	98.5		P	80 - 120
Malathion	95.5		P	80 - 120
Metalaxyl	98.6		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	96.0		P	80 - 120
Molinate	97.8		P	80 - 120
Myclobutanil	94.5		P	80 - 120
Naled	98.0		P	80 - 120
Norflurazon	91.3		P	80 - 120
Oxadiazon	98.6		P	80 - 120
Oxyfluorfen	98.7		P	80 - 120
Parathion Ethyl	91.5		P	80 - 120
Parathion Methyl	98.4		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	97.7		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	98.2		P	80 - 120
Pronamide	99.0		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	95.1		P	80 - 120
Sulfentrazone	93.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E dissolved
Run ID: A102095
Included Lab Sample IDs: 2206557, 2206558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	94.2		P	80 - 120
Terbufos	97.3		P	80 - 120
Terbuthylazine	96.4		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A102110
Included Lab Sample IDs: 2206534, 2206535

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

Reference Method: EPA 8321B
Run ID: A102123
Included Lab Sample IDs: 2206553, 2206554

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	96.2	102	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A102132
Included Lab Sample IDs: 2206554

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	102	P/P	50 - 150
Acetaminophen	105	103	P/P	60 - 160
Acetamiprid	108	107	P/P	50 - 150
Afidopyropen	99.1	84.1	P/P	50 - 150
Bentazon	122	101	P/P	50 - 160
Benzovindiflupyr	121	118	P/P	50 - 150
Carbamazepine	108	95.1	P/P	60 - 150
Clothianidin	84.9	95.2	P/P	60 - 150
Dinotefuran	95.7	97.1	P/P	50 - 150
Diuron	98.1	87.0	P/P	60 - 160
Fenuron	106	106	P/P	60 - 150
Fluridone	104	107	P/P	60 - 160
Hydrocodone	103	116	P/P	60 - 150
Ibuprofen	98.4	95.8	P/P	50 - 160
Imazapyr	113	104	P/P	50 - 160
Imidacloprid	96.3	95.8	P/P	60 - 150
Linuron	115	115	P/P	60 - 150
Mandestrobin	110	111	P/P	50 - 150
MCPP	114	89.9	P/P	50 - 150
Naproxen	99.8	67.5	P/P	50 - 160
Primidone	110	101	P/P	60 - 150
Pyraclostrobin	115	114	P/P	60 - 150
Thiamethoxam	95.9	98.9	P/P	50 - 150
Tolfenpyrad	133	139	P/P	60 - 150
Triclopyr	110	92.5	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-2011
Run ID: A102147
Included Lab Sample IDs: 2206532, 2206533

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	96.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102248
Included Lab Sample IDs: 2206555, 2206556

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.2	98.5	P/P	90 - 110
Arsenic	101	99.9	P/P	90 - 110
Beryllium	98.0	95.1	P/P	90 - 110
Boron	103	101	P/P	90 - 110
Cadmium	98.7	99.2	P/P	90 - 110
Chromium	98.6	98.2	P/P	90 - 110
Copper	99.8	98.2	P/P	90 - 110
Lead	101	101	P/P	90 - 110
Nickel	100	98.8	P/P	90 - 110
Selenium	98.3	99.9	P/P	90 - 110
Thallium	98.3	97.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102273
Included Lab Sample IDs: 2206555, 2206556

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	101	P/P	90 - 110
Silver	106	104	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		Precision		
						LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.27	
EPA 200.7 Rev. 4.4	Barium	100		98.1	103			5.03
	Calcium	105		102	107			3.91
	Iron	104		103	108			4.37
	Magnesium	104		104	108			3.67
	Potassium	102		102	106			3.66
	Sodium	101		102	104			1.44
	Zinc	96.7		95.6	102			6.12
EPA 200.8 Rev. 5.4	Aluminum	104		101	98.8			2.57
	Antimony	102		101	100			1.22
	Arsenic	103		103	101			1.93
	Beryllium	101		99.2	97.9			1.15
	Boron	102		98.3	98.1			0.178
	Cadmium	100		100	98.9			1.10
	Chromium	102		101	99.2			2.28
	Copper	101		103	100			1.77
	Lead	105		104	102			1.99
	Nickel	101		103	101			1.80
	Selenium	100		100	98.8			1.68
	Silver	108		109	107			1.60
	Thallium	104		103	102			1.28
EPA 300.0 Rev. 2.1	Chloride	99.3		97.9	99.3		0.0652	
	Sulfate	100		98.7	99.8			
EPA 350.1 Rev. 2.0	Ammonia-N	98.9		103	104			1.14
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109		105	102			1.59
EPA 353.2 Rev. 2.0	NO2NO3-N	97.5		98.0	97.0			1.03
EPA 365.1 Rev. 2.0	Total-P	103		104	104			0.193
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		101	102			0.987
EPA 8270E	Acetochlor	108	109	110	116	1.27		5.50
	Alachlor	106	105	101	102	0.814		0.906
	Ametryn	109	111	117	121	1.74		3.42
	Atrazine	94.3	98.2			4.00		4.55
	Atrazine Desethyl	92.7	97.5	91.6	92.3	4.98		0.541
	Azinphos Methyl	124	129	124	139	3.87		10.8
	Azoxystrobin	114	112	107	116	2.40		8.02
	Bromacil	87.7	102			14.6		3.19
	Butylate	84.1	67.6	72.5	85.7	21.7		16.7
	Carbophenothion	84.8	82.6	86.4	85.2	2.68		1.39
	Carfentrazone Ethyl	112	114	114	116	1.75		1.98
	Chlorpyrifos Ethyl	93.4	88.2	94.2	97.2	5.74		3.16
	Chlorpyrifos Methyl	106	98.2	102	98.8	7.84		3.02
	Cyanazine	139	143	133	143	2.92		7.29
	Demeton	104	78.3	79.8	80.5	28.6		0.846
	Diazinon	112	112	108	122	0.182		12.0
	Difenoconazole	121	116	130	134	4.06		2.32
	Dimethenamid	103	105	99.9	109	2.13		8.50
	Disulfoton	93.4	87.2	88.4	90.0	6.86		1.74
	Dithiopyr	101	104	101	109	3.11		7.65
	EPTC	65.4	70.3	68.2	69.5	7.28		1.86
	Ethion	71.9	73.2	73.7	79.8	1.83		8.02
	Ethoprop	101	94.2	102	102	7.42		0.0751
	Fenamiphos	103	88.3	71.5	81.3	15.2		12.8
	Fenbuconazole	99.2	103	105	110	3.36		4.71
	Fipronil	105	107	108	114	1.95		4.51

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	94.3	95.9	96.9	105	1.64		6.86
	Fipronil Sulfide	82.3	92.8	93.5	86.1	12.0		6.68
	Fipronil Sulfone	81.0	93.5	94.6	78.9	14.4		7.85
	Fluazifop-P-butyl	103	95.7	101	107	7.05		6.28
	Fludioxonil	93.2	97.9	93.7	96.2	4.96		2.65
	Flumioxazin	154	142	168	174	7.51		3.17
	Flutolanil	91.3	105	93.6	96.2	13.5		2.49
	Fluxapyroxad	92.8	94.4	92.1	98.8	1.63		6.75
	Fonofos	88.4	95.5	93.2	92.2	7.72		1.07
	Hexazinone	86.6	89.7	88.9	95.1	3.55		6.04
	Imazalil	99.7	111	93.8	96.6	10.9		2.98
	Iprodione	96.2	92.6	97.0	100	3.90		3.53
	Malathion	79.3	94.9	92.0	83.3	17.9		9.98
	Metalaxyl	100	98.0	98.8	101	2.01		2.27
	Metolachlor	97.9	102	96.5	101	3.98		4.16
	Metribuzin	105	112	106	106	5.96		0.256
	Mevinphos	81.0	91.4	87.6	82.5	12.2		5.94
	Molinate	77.5	80.2	81.1	84.4	3.44		3.96
	Myclobutanil	97.1	101	103	109	3.62		5.61
	Naled	46.3	51.0	48.1	47.1	9.64		2.03
	Norflurazon	94.9	97.5	96.5	101	2.76		4.97
	Oxadiazon	92.6	90.1	92.3	98.5	2.77		6.42
	Parathion Ethyl	89.2	91.7	98.1	99.4	2.85		1.31
	Parathion Methyl	108	102	104	108	5.04		3.94
	Pendimethalin	97.4	90.4	104	109	7.42		5.29
	Phorate	78.0	81.4	79.3	80.5	4.29		1.49
	Prodiamine	69.9	71.8	88.5	92.9	2.73		4.84
	Prometon	95.4	99.2	90.4	102	3.87		10.6
	Prometryn	106	108	110	116	2.36		5.29
	Pronamide	101	102	94.2	108	0.932		13.7
	Propiconazole	111	108	123	131	2.81		6.11
	Pyriproxyfen	118	109	104	116	8.28		10.8
	Simazine	109	111			1.28		10.5
	Sulfentrazone	76.5	73.6	114	97.2	3.80		16.3
	Tebuconazole	68.7	66.6	65.4	74.7	3.07		11.9
	Terbufos	85.9	90.5	91.5	93.9	5.22		2.55
	Terbuthylazine	94.8	96.1	96.1	106	1.34		10.3
EPA 8270E dissolved	Oxyfluorfen	118	114	128	138	3.51		7.80
EPA 8321B	2,4-D	60.8		55.3	55.1			0.336
	2,4-D	42.8		45.3	42.1			4.35
	Acesulfame K	136		51.2	45.8			10.1
	Acetaminophen	54.2		40.1	34.5			15.0
	Acetaminophen	45.3		47.5	49.5			4.07
	Acetamiprid	71.9		47.3	56.1			17.1
	Acetamiprid	58.7		34.6	34.2			1.34
	Afidopyropen	51.4		43.5	35.2			21.2
	Afidopyropen	35.8		38.1	35.8			6.30
	AMPA	100		70.6	66.2			4.46
	Bentazon	41.8						
	Bentazon	41.9						7.18
	Benzovindiflupyr	56.7		54.1	53.0			2.13
	Benzovindiflupyr	58.6		51.8	56.5			8.72
	Carbamazepine	62.2		47.3	54.0			9.73
	Carbamazepine	52.4		45.4	44.3			2.34

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Clothianidin	88.4	59.6	56.5			5.22
	Clothianidin	67.0	30.7	31.2			1.39
	Dinotefuran	82.3	53.9	47.2			10.7
	Dinotefuran	69.8	61.5	61.4			0.161
	Diuron	53.8	36.5	35.9			1.69
	Diuron	61.0	29.0	26.6			8.52
	Endothall	94.0	115	121			5.06
	Fenuron	112	57.8	60.4			4.43
	Fenuron	84.4	34.9	33.6			3.59
	Fluridone	66.7	61.3	56.5			6.37
	Fluridone	53.1	50.0	69.2			15.4
	Glufosinate	100	101	94.6			6.41
	Glyphosate	103	100	91.2			4.26
	Hydrocodone	64.6	62.6	55.6			11.9
	Hydrocodone	66.8	48.6	50.9			4.64
	Ibuprofen	81.1	68.0	55.2			20.7
	Ibuprofen	57.8	48.7	43.4			11.5
	Imazapyr	78.6	78.7	72.7			4.46
	Imazapyr	76.5					1.31
	Imidacloprid	86.5					7.08
	Imidacloprid	73.9	77.5	74.9			2.76
	Linuron	68.9	65.8	63.1			4.08
	Linuron	85.4	60.3	57.6			4.60
	Mandestrobin	64.2	59.1	58.4			1.23
	Mandestrobin	66.5	60.2	57.3			4.82
	MCPP	65.9	59.4	56.3			5.42
	MCPP	52.0	49.4	46.6			5.93
	Naproxen	48.6	45.4	50.3			10.2
	Naproxen	43.8	254	215			16.6
	Primidone	85.8	72.9	66.7			6.47
	Primidone	78.2	43.3	46.5			7.30
	Pyraclostrobin	47.3	48.5	47.3			2.60
	Pyraclostrobin	47.0	52.8	50.1			5.11
	Sucralose	129	57.0	55.6			2.27
	Thiamethoxam	83.2	72.9	75.7			3.86
	Thiamethoxam	70.1	54.7	52.5			3.69
	Tolfenpyrad	33.7	47.7	41.2			14.6
	Tolfenpyrad	30.1	41.6	38.2			8.66
	Triclopyr	64.1	47.7	51.8			8.26
	Triclopyr	42.0	56.0	48.8			13.7
SM 2120 B-2011	Color (true)	103				0.720	
SM 2320 B-2011	Total Alkalinity	99.9				0.478	
SM 2540 C-2011	TDS					0.669	
SM 4500 F-C-2011	Fluoride	94.4	97.6	98.8			0.984
SM 5310 B-2011	Organic Carbon	103	102	102			0.272

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2206532, 2206533
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2206555, 2206556

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2206555, 2206556
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2206532, 2206533
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2206532, 2206533
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2206534, 2206535
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2206534, 2206535
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2206534, 2206535
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2206534, 2206535
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2206536, 2206537
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2206557, 2206558
EPA 8270E dissolved	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2206557, 2206558
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2206553, 2206554
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2206553, 2206554
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2206532, 2206533
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2206532, 2206533
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2206555, 2206556
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2206532, 2206533
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2206532, 2206533
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2206532, 2206533
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2206534, 2206535

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	11/05/2020			11/05/2020 15:01	Yen Ta	2206532, 2206533
EPA 200.7 Rev. 4.4	11/05/2020	11/05/2020 15:30	Elliott D. Healy	11/06/2020 15:04	Betina Topolski	2206555
	11/05/2020	11/05/2020 15:30	Elliott D. Healy	11/06/2020 15:09	Betina Topolski	2206556
EPA 200.8 Rev. 5.4	11/05/2020	11/05/2020 15:30	Elliott D. Healy	11/21/2020 19:21	Alexander Thompson	2206555
	11/05/2020	11/05/2020 15:30	Elliott D. Healy	11/21/2020 19:31	Alexander Thompson	2206556
	11/05/2020	11/05/2020 15:30	Elliott D. Healy	11/23/2020 19:31	Alexander Thompson	2206555
	11/05/2020	11/05/2020 15:30	Elliott D. Healy	11/23/2020 19:39	Alexander Thompson	2206556
EPA 300.0 Rev. 2.1	11/05/2020			11/10/2020 17:10	Lipi Saha	2206532
	11/05/2020			11/10/2020 17:23	Lipi Saha	2206533
EPA 350.1 Rev. 2.0	11/05/2020			11/07/2020 12:37	Ping Hua	2206534
	11/05/2020			11/07/2020 12:38	Ping Hua	2206535
EPA 351.2 Rev. 2.0	11/05/2020	11/06/2020 12:50	David Boose	11/09/2020 14:06	Elliott Rodriguez	2206534
	11/05/2020	11/06/2020 12:50	David Boose	11/09/2020 14:08	Elliott Rodriguez	2206535
EPA 353.2 Rev. 2.0	11/05/2020			11/06/2020 11:01	Beverly Y. Sanders	2206534
	11/05/2020			11/06/2020 11:02	Beverly Y. Sanders	2206535
EPA 365.1 Rev. 2.0	11/05/2020	11/06/2020 13:18	Yen Ta	11/12/2020 11:06	Shengyu Wang	2206534
	11/05/2020	11/06/2020 13:18	Yen Ta	11/12/2020 11:07	Shengyu Wang	2206535
EPA 365.1 Rev. 2.0 dissolved	11/05/2020			11/05/2020 15:54	Blanca Fach	2206536
	11/05/2020			11/05/2020 15:55	Blanca Fach	2206537
EPA 8270E	11/05/2020	11/06/2020 08:00	Fe-Val Siddell	11/09/2020 16:37	Vandana T. Nagar	2206557
	11/05/2020	11/06/2020 08:00	Fe-Val Siddell	11/09/2020 17:02	Vandana T. Nagar	2206558
EPA 8270E dissolved	11/05/2020	11/06/2020 08:00	Fe-Val Siddell	11/09/2020 16:37	Vandana T. Nagar	2206557
	11/05/2020	11/06/2020 08:00	Fe-Val Siddell	11/09/2020 17:02	Vandana T. Nagar	2206558
EPA 8321B	11/05/2020	11/05/2020 12:15	Hoor Shaik	11/06/2020 16:18	Juyoung Kim	2206553
	11/05/2020	11/09/2020 12:00	Rebecca Ware	11/09/2020 13:22	Rebecca Ware	2206553
	11/05/2020	11/09/2020 12:00	Rebecca Ware	11/09/2020 13:45	Rebecca Ware	2206554
	11/05/2020	11/09/2020 12:00	Rebecca Ware	11/10/2020 11:10	Rebecca Ware	2206553
	11/05/2020	11/09/2020 12:00	Rebecca Ware	11/10/2020 11:41	Rebecca Ware	2206554
	11/05/2020	11/09/2020 12:00	Rebecca Ware	11/12/2020 13:45	Rebecca Ware	2206553
	11/05/2020	11/09/2020 12:00	Rebecca Ware	11/12/2020 13:57	Rebecca Ware	2206554
	11/05/2020	11/10/2020 09:00	Hoor Shaik	11/10/2020 23:01	Juyoung Kim	2206554
SM 2120 B-2011	11/05/2020			11/05/2020 15:54	Benjamin T. Nordmann	2206532
	11/05/2020			11/05/2020 15:55	Benjamin T. Nordmann	2206533
SM 2320 B-2011	11/05/2020			11/07/2020 03:35	Dale L. Simmons	2206532
	11/05/2020			11/07/2020 03:47	Dale L. Simmons	2206533
SM 2340B	11/05/2020			11/06/2020 15:04	Betina Topolski	2206555
	11/05/2020			11/06/2020 15:09	Betina Topolski	2206556
SM 2540 C-2011	11/05/2020			11/06/2020 19:55	Madeline Gruver	2206532, 2206533
SM 2540 D-2011	11/05/2020			11/06/2020 19:56	Madeline Gruver	2206532, 2206533
SM 4500 F-C-2011	11/05/2020			11/13/2020 18:21	Dale L. Simmons	2206532

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	11/05/2020			11/13/2020 18:26	Dale L. Simmons	2206533
SM 5310 B-2011	11/05/2020			11/06/2020 22:44	Touraj Touran	2206534
	11/05/2020			11/06/2020 22:56	Touraj Touran	2206535