

Chemical Analysis Report

NW-DIST-2021-12-15-01

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

Event Description: **Bioassessment**
Request ID: **RQ-2021-12-13-44**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Frank Butera

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 10-JAN-2022 08:48

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

NON-CONFORMANCE REPORT INCLUDED

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: Poverty Creek upstream of Poverty Creek Rd Collection Date/Time: 12/14/2021 10:50

Field ID: G4NW0427

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2295366	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P407505	
	EPA 300.0 Rev. 2.1	Chloride	3.0		mg Cl/L	P407592	
		Sulfate	2.0		mg SO4/L	P407595	
	SM 2120 B-2011	Color (true)	25	A	PCU	P407970	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P407608	
	SM 2540 C-2011	TDS	25		mg/L	P407890	
	SM 2540 D-2011	TSS	4	I	mg/L	P407699	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P407610	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P408039	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P407954	
2295367	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P407736	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P407521	
	SM 5310 B-2011	Organic Carbon	2.7		mg C/L	P407985	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P407493	
	dissolved						
2295376	EPA 8321B	2,4-D	0.0020	U	ug/L	P407620	
		Acesulfame K	0.10	U	ug/L	P407479	
		2,4,5-T	0.0040	U	ug/L	P407620	
		AMPA	0.10	U	ug/L	P407479	
		Acetaminophen	0.0080	U	ug/L	P407620	
		Acetamiprid	0.0020	U	ug/L	P407620	
		Endothall	0.25	U	ug/L	P407479	
		Glufosinate	0.10	U	ug/L	P407479	
		Glyphosate	0.10	U	ug/L	P407479	
		Afidopyropen	0.0020	U	ug/L	P407620	
		Bentazon	8.0E-04	U	ug/L	P407620	
		Sucralose	0.097		ug/L	P407479	
		Benzovindiflupyr	0.0020	U	ug/L	P407620	
		Carbamazepine	8.0E-04	U	ug/L	P407620	
		Clothianidin	0.0020	U	ug/L	P407620	
		Dinotefuran	0.0020	U	ug/L	P407620	
		Diuron	0.0020	U	ug/L	P407620	
		Fenuron	0.016	U	ug/L	P407620	
		Fluridone	8.0E-04	U	ug/L	P407620	
		Imazapyr	0.0040	U	ug/L	P407620	
		Hydrocodone	0.0020	U	ug/L	P407620	
		Ibuprofen	0.020	U	ug/L	P407620	
		Imidacloprid	0.0031	I	ug/L	P407620	
		Linuron	0.0040	U	ug/L	P407620	
		Mandestrobin	0.0020	U	ug/L	P407620	
		MCP	0.0040	U	ug/L	P407620	
		Naproxen	0.0080	U	ug/L	P407620	
		Primidone	0.0040	UJ	ug/L	P407620	
		Pyraclostrobin	0.0020	U	ug/L	P407620	

MS

Field ID: G4NW0427

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2295376	EPA 8321B	Silvex	0.0040	U	ug/L	P407620	
		Thiamethoxam	0.0020	U	ug/L	P407620	
		Tolfenpyrad	0.0020	U	ug/L	P407620	
		Triclopyr	0.0040	U	ug/L	P407620	
2295377	EPA 200.7 Rev. 4.4	Barium	13.3		ug/L	P407589	
		Calcium	0.80		mg/L	P407589	
		Iron	430		ug/L	P407589	
		Magnesium	0.59		mg/L	P407589	
		Manganese	16.4		ug/L	P407589	
		Potassium	0.40	I	mg/L	P407589	
		Sodium	1.8	I	mg/L	P407589	
		Strontium	5.2	I	ug/L	P407589	
		Tin	3.0	U	ug/L	P407589	
		Titanium	0.75	U	ug/L	P407589	
		Vanadium	2.0	U	ug/L	P407589	
		Zinc	5.0	U	ug/L	P407869	
	EPA 200.8 Rev. 5.4	Aluminum	108		ug/L	P407589	
		Antimony	0.050	U	ug/L	P407589	
		Arsenic	0.22		ug/L	P407589	
		Beryllium	0.112		ug/L	P407589	
		Boron**	8.7		ug/L	P407589	
		Cadmium	0.020	U	ug/L	P407589	
		Chromium	0.40	U	ug/L	P407589	
		Cobalt	0.644		ug/L	P407589	
		Copper	0.40	U	ug/L	P407589	
		Lead	0.20	U	ug/L	P407589	
		Molybdenum	0.15	U	ug/L	P407589	
		Nickel	0.79	I	ug/L	P407589	
2295380	SM 2340B	Selenium	0.20	U	ug/L	P407589	
		Silver	0.010	U	ug/L	P407589	
	EPA 8270E	Thallium	0.10	U	ug/L	P407589	
		Hardness	4.4		mg/L	P407589	
		Acetochlor	0.26	U	ng/L	P407641	
		Alachlor	0.26	U	ng/L	P407641	
		Ametryn	0.61	U	ng/L	P407641	
		Atrazine	0.36	I	ng/L	P407641	
		Atrazine Desethyl	1.5	U	ng/L	P407641	
		Azinphos Methyl	2.0	U	ng/L	P407641	
		Azoxystrobin**	0.51	U	ng/L	P407641	
		Bromacil	0.51	U	ng/L	P407641	
		Butylate	0.41	U	ng/L	P407641	
		Caffeine**	7.7	U	ng/L	P407641	
		Carbophenothion	0.51	U	ng/L	P407641	
		Carfentrazone Ethyl**	0.10	U	ng/L	P407641	
		Chlorfenapyr**	0.18	U	ng/L	P407641	

Field ID: G4NW0427

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2295380	EPA 8270E	Chlorpyrifos Ethyl	0.26	U	ng/L	P407641	
		Chlorpyrifos Methyl	0.051	U	ng/L	P407641	
		Coumaphos**	0.51	U	ng/L	P407641	
		Cyanazine	3.3	U	ng/L	P407641	
		Cyprodinil**	0.10	U	ng/L	P407641	
		Demeton	1.5	U	ng/L	P407641	
		Diazinon	0.13	U	ng/L	P407641	
		Difenoconazole**	0.61	U	ng/L	P407641	
		Dimethenamid**	0.10	U	ng/L	P407641	
		Dimethomorph**	0.18	U	ng/L	P407641	MS
		Disulfoton	0.51	U	ng/L	P407641	
		Dithiopyr**	0.18	U	ng/L	P407641	
		EPTC	1.3	U	ng/L	P407641	
		Ethion	0.15	U	ng/L	P407641	
		Ethoprop	0.10	U	ng/L	P407641	
		Etridiazole**	0.15	U	ng/L	P407641	
		Fenamiphos	0.51	U	ng/L	P407641	
		Fenbuconazole**	0.13	U	ng/L	P407641	
		Fipronil	0.26	U	ng/L	P407641	
		Fipronil Desulfinyl**	0.13	U	ng/L	P407641	
		Fipronil Sulfide	0.15	U	ng/L	P407641	
		Fipronil Sulfone	0.15	U	ng/L	P407641	
		Fluazifop-P-butyl**	0.10	U	ng/L	P407641	
		Fludioxonil**	0.13	U	ng/L	P407641	
		Flumioxazin**	1.8	U	ng/L	P407641	
		Flutolanil**	0.10	U	ng/L	P407641	
		Fluxapyroxad**	0.10	U	ng/L	P407641	
		Fonofos	0.20	U	ng/L	P407641	
		Hexazinone	9.8		ng/L	P407641	
		Imazalil**	0.77	U	ng/L	P407641	
		Iprodione**	0.61	U	ng/L	P407641	
		Loratadine**	0.10	U	ng/L	P407641	
		Malathion	0.36	U	ng/L	P407641	
		Metalaxyl	0.77	U	ng/L	P407641	
		Metolachlor	0.36	U	ng/L	P407641	
		Metribuzin	3.3	U	ng/L	P407641	
		Mevinphos	1.1	U	ng/L	P407641	
		Molinate	0.31	U	ng/L	P407641	
		Myclobutanil**	0.26	U	ng/L	P407641	
		Naled**	1.5	UJ	ng/L	P407641	LCS
		Napropamide**	0.41	U	ng/L	P407641	
		Norflurazon	0.51	U	ng/L	P407641	
		Oxadiazon	0.31	U	ng/L	P407641	
		Oxyfluorfen**	0.15	U	ng/L	P407641	
		Parathion Ethyl	0.26	U	ng/L	P407641	

Field ID: G4NW0427

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2295380	EPA 8270E	Parathion Methyl	0.56	U	ng/L	P407641	
		Pendimethalin	1.0	UJ	ng/L	P407641	LCS
		Phenytol**	3.6	U	ng/L	P407641	MS
		Phorate	0.54	U	ng/L	P407641	
		Prodiatone**	0.31	U	ng/L	P407641	
		Prometon	0.92	U	ng/L	P407641	
		Prometryn	0.20	U	ng/L	P407641	
		Pronamide**	0.15	U	ng/L	P407641	
		Propanil**	0.13	U	ng/L	P407641	
		Propargite**	1.5	U	ng/L	P407641	
		Propiconazole**	0.51	U	ng/L	P407641	
		Pyraflufen Ethyl**	0.26	U	ng/L	P407641	
		Pyridaben**	0.46	U	ng/L	P407641	
		Pyriproxyfen**	0.13	U	ng/L	P407641	
		Simazine	0.51	U	ng/L	P407641	
		Stirophos**	0.13	U	ng/L	P407641	
		Sulfentrazone**	0.51	U	ng/L	P407641	
		Tebuconazole**	0.51	U	ng/L	P407641	
		Terbufos	0.10	U	ng/L	P407641	
		Terbutylazine	0.44	U	ng/L	P407641	
		Thiobencarb**	0.61	U	ng/L	P407641	
		Triadimefon**	0.26	U	ng/L	P407641	

Ref. Method and Comment:

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

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Non-Conformance Report

NCR ID: 9173

Event(s)

NW-DIST-2021-12-15-01

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Sample Integrity

Observation: Sample replicate 1 of 2 received broken for Macroinvertebrates (MI-FW-QLDC).
Field ID: G4NW0427

Resolution: Unable to login sample due to insufficient volume. Sample volume confirmed by Todd Risk.

Customer (Frank Butera) contacted. Email correspondence attached to sample submittal forms.

Authorized by/Date: Joshua Ayres 12/27/2021

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P407505

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P407589

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
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P407869

Component	Result	Code	Units
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P407589

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
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Molybdenum	0.15	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: P407592

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407595

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408039

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407954

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407736

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407521

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407493

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

Reference Method: EPA 8270E
Batch ID: P407641

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P407641

Component	Result	Code	Units
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P407641

Component	Result	Code	Units
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P407641

Component	Result	Code	Units
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.30	U	ng/L
Prodiamine	0.30	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B
 Batch ID: P407479

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P407620

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	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: P407970

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P407608

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

Reference Method: SM 2540 C-2011

Batch ID: P407890

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P407699

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P407610

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P407985

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: P407589

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	106		P	85 - 115
Calcium	104		P	85 - 115
Iron	105		P	85 - 115
Magnesium	108		P	85 - 115
Manganese	105		P	85 - 115
Potassium	98.8		P	85 - 115
Sodium	103		P	85 - 115
Strontium	99.7		P	85 - 115
Tin	105		P	85 - 115
Titanium	105		P	85 - 115
Vanadium	105		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P407869

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Zinc	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P407589

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	80 - 120
Antimony	99.3		P	85 - 115
Arsenic	107		P	80 - 120
Beryllium	96.6		P	85 - 115
Boron	105		P	80 - 120
Cadmium	102		P	80 - 120
Chromium	98.7		P	85 - 115
Cobalt	98.5		P	85 - 115
Copper	106		P	80 - 120
Lead	96.8		P	85 - 115
Molybdenum	107		P	80 - 120
Nickel	105		P	80 - 120
Selenium	100		P	80 - 120
Silver	103		P	80 - 120
Thallium	106		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P407592

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P407595

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P408039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P407954

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P407736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P407521

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P407493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.5		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P407641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	121	108	P/P	70 - 121
Alachlor	112	98.0	P/P	70 - 119
Ametryn	109	110	P/P	61 - 135
Atrazine	111	105	P/P	76 - 123
Atrazine Desethyl	106	103	P/P	35 - 140
Azinphos Methyl	139	131	P/P	57 - 163
Azoxystrobin	109	99.2	P/P	43 - 231
Bromacil	95.8	102	P/P	42 - 123
Butylate	53.5	53.3	P/P	34 - 92.0
Caffeine	72.1	76.0	P/P	70 - 130
Carbophenothion	98.9	92.5	P/P	61 - 121
Carfentrazone Ethyl	127	115	P/P	62 - 139
Chlorfenapyr	98.7	83.8	P/P	50 - 150
Chlorpyrifos Ethyl	87.1	78.3	P/P	67 - 121
Chlorpyrifos Methyl	99.7	93.0	P/P	67 - 120
Coumaphos	105	96.8	P/P	50 - 220
Cyanazine	120	110	P/P	20 - 226
Cyprodinil	124	107	P/P	50 - 150
Demeton	106	91.7	P/P	35 - 125
Diazinon	121	109	P/P	70 - 122
Difenoconazole	146	141	P/P	56 - 186
Dimethenamid	98.8	88.9	P/P	67 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P407641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dimethomorph	118	104	P/P	50 - 150
Disulfoton	108	105	P/P	47 - 120
Dithiopyr	110	99.4	P/P	67 - 118
EPTC	57.7	55.8	P/P	33 - 90.0
Ethion	93.2	85.0	P/P	40 - 133
Ethoprop	97.5	92.3	P/P	61 - 121
Etridiazole	67.5	62.2	P/P	50 - 150
Fenamiphos	92.3	78.3	P/P	31 - 139
Fenbuconazole	116	106	P/P	66 - 141
Fipronil	123	114	P/P	62 - 129
Fipronil Desulfinyl	126	119	P/P	59 - 126
Fipronil Sulfide	96.5	90.6	P/P	63 - 117
Fipronil Sulfone	91.5	80.8	P/P	57 - 117
Fluazifop-P-butyl	118	108	P/P	63 - 124
Fludioxonil	115	107	P/P	63 - 123
Flumioxazin	173	153	P/P	34 - 245
Flutolanil	105	99.9	P/P	56 - 131
Fluxapyroxad	106	93.9	P/P	57 - 117
Fonofos	96.5	85.3	P/P	61 - 116
Hexazinone	111	96.7	P/P	55 - 138
Imazalil	109	88.3	P/P	33 - 143
Iprodione	103	102	P/P	59 - 118
Loratadine	110	92.3	P/P	50 - 150
Malathion	85.4	74.8	P/P	62 - 138
Metalaxyl	102	99.6	P/P	24 - 147
Metolachlor	104	91.7	P/P	68 - 118
Metribuzin	107	97.5	P/P	20 - 239
Mevinphos	83.2	84.1	P/P	46 - 124
Molinate	72.5	68.0	P/P	46 - 100
Myclobutanil	107	99.5	P/P	32 - 149
Naled	99.5	91.0	F/P	32 - 95.0
Napropamide	111	95.6	P/P	50 - 150
Norflurazon	118	109	P/P	57 - 127
Oxadiazon	93.7	85.0	P/P	63 - 118
Oxyfluorfen	134	120	P/P	69 - 137
Parathion Ethyl	108	93.4	P/P	70 - 113
Parathion Methyl	124	129	P/P	71 - 130
Pendimethalin	126	105	F/P	55 - 118
Phenytol	61.4	53.3	P/P	50 - 200
Phorate	85.1	74.2	P/P	46 - 125
Prodiamine	44.8	38.1	P/P	20 - 141
Prometon	103	97.6	P/P	54 - 122
Prometryn	111	97.7	P/P	66 - 124
Pronamide	114	105	P/P	79 - 122
Propanil	138	150	P/P	50 - 150
Propargite	102	93.2	P/P	50 - 200
Propiconazole	109	101	P/P	61 - 126
Pyraflufen Ethyl	114	102	P/P	50 - 150
Pyridaben	109	95.2	P/P	50 - 200
Pyriproxyfen	122	111	P/P	52 - 131
Simazine	106	96.1	P/P	75 - 128
Stirophos	64.7	54.8	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P407641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfentrazone	113	106	P/P	20 - 132
Tebuconazole	82.5	76.8	P/P	20 - 116
Terbufos	110	95.4	P/P	61 - 117
Terbutylazine	102	93.2	P/P	74 - 116
Thiobencarb	107	93.5	P/P	50 - 150
Triadimefon	109	96.5	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P407479

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	102		P	40 - 150
Endothall	81.3		P	40 - 150
Glufosinate	102		P	40 - 150
Glyphosate	93.5		P	40 - 150
Sucralose	78.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P407620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	105		P	40 - 150
2,4,5-T	123		P	40 - 150
Acetaminophen	87.7		P	30 - 150
Acetamiprid	88.4		P	40 - 150
Afidopyropen	77.0		P	40 - 150
Bentazon	124		P	30 - 150
Benzovindiflupyr	83.0		P	40 - 150
Carbamazepine	97.5		P	40 - 150
Clothianidin	110		P	40 - 150
Dinotefuran	83.4		P	40 - 150
Diuron	79.9		P	40 - 150
Fenuron	93.9		P	40 - 150
Fluridone	91.9		P	40 - 150
Hydrocodone	104		P	40 - 150
Ibuprofen	110		P	40 - 150
Imazapyr	103		P	40 - 150
Imidacloprid	100		P	40 - 150
Linuron	77.5		P	40 - 150
Mandestrobin	89.4		P	40 - 150
MCPP	101		P	40 - 150
Naproxen	56.8		P	40 - 150
Primidone	141		P	40 - 150
Pyraclostrobin	70.5		P	40 - 150
Silvex	90.5		P	40 - 150
Thiamethoxam	96.5		P	40 - 150
Tolfenpyrad	33.0		P	30 - 150
Triclopyr	106		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P407970

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

Reference Method: SM 2320 B-2011
Batch ID: P407608

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P407610

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P407985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P407589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295242	Barium	99.9	102	P/P	80 - 120
2295242	Iron	104	104	P/P	80 - 120
2295242	Magnesium	104	105	P/P	80 - 120
2295242	Manganese	100	102	P/P	80 - 120
2295242	Potassium	101	102	P/P	80 - 120
2295242	Sodium	102	103	P/P	80 - 120
2295242	Strontium	98.7	98.5	P/P	80 - 120
2295242	Tin	101	101	P/P	80 - 120
2295242	Titanium	102	104	P/P	80 - 120
2295242	Vanadium	103	105	P/P	80 - 120
2295262	Barium	100		P	80 - 120
2295262	Iron	104		P	80 - 120
2295262	Magnesium	99.0		P	80 - 120
2295262	Manganese	101		P	80 - 120
2295262	Potassium	92.6		P	80 - 120
2295262	Sodium	101		P	80 - 120
2295262	Strontium	94.6		P	80 - 120
2295262	Tin	100		P	80 - 120
2295262	Titanium	103		P	80 - 120
2295262	Vanadium	104		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P407869

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295295	Zinc	95.1	96.8	P/P	80 - 120
2295421	Zinc	96.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P407589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295242	Aluminum	100	101	P/P	80 - 120
2295242	Antimony	102	99.6	P/P	80 - 120
2295242	Arsenic	109	107	P/P	80 - 120
2295242	Beryllium	99.4	95.1	P/P	80 - 120
2295242	Boron	103	105	P/P	80 - 120
2295242	Cadmium	107	103	P/P	80 - 120
2295242	Chromium	98.0	97.0	P/P	80 - 120
2295242	Cobalt	101	99.1	P/P	80 - 120
2295242	Copper	102	101	P/P	80 - 120
2295242	Lead	98.0	95.4	P/P	80 - 120
2295242	Molybdenum	110	109	P/P	80 - 120
2295242	Nickel	103	102	P/P	80 - 120
2295242	Selenium	101	98.5	P/P	80 - 120
2295242	Silver	104	102	P/P	80 - 120
2295242	Thallium	111	109	P/P	80 - 120
2295262	Aluminum	102		P	80 - 120
2295262	Antimony	103		P	80 - 120
2295262	Arsenic	110		P	80 - 120
2295262	Beryllium	97.3		P	80 - 120
2295262	Boron	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P407589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295262	Cadmium	105		P	80 - 120
2295262	Chromium	101		P	80 - 120
2295262	Cobalt	101		P	80 - 120
2295262	Copper	103		P	80 - 120
2295262	Lead	98.9		P	80 - 120
2295262	Molybdenum	114		P	80 - 120
2295262	Nickel	106		P	80 - 120
2295262	Selenium	101		P	80 - 120
2295262	Silver	103		P	80 - 120
2295262	Thallium	113		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P407592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295206	Chloride	101		P	90 - 110
2295363	Chloride	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P407595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295206	Sulfate	99.2		P	90 - 110
2295363	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P408039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295281	Ammonia-N	97.4	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P407954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295109	Kjeldahl Nitrogen	97.6	93.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P407736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295367	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P407521

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295280	Total-P	110	108	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295282	O-Phosphate-P	98.8	97.3	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P407641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295927	Acetochlor	108	117	P/P	66 - 122
2295927	Alachlor	103	102	P/P	65 - 122
2295927	Ametryn	118	110	P/P	45 - 173
2295927	Atrazine	121	131	P/P	70 - 134
2295927	Atrazine Desethyl	96.1	99.2	P/P	25 - 150
2295927	Azinphos Methyl	119	127	P/P	44 - 174
2295927	Azoxystrobin	122	122	P/P	10 - 268
2295927	Bromacil	82.1	99.3	P/P	31 - 145
2295927	Butylate	50.3	57.7	P/P	15 - 97.0
2295927	Caffeine	89.9	101	P/P	70 - 130
2295927	Carbophenothion	95.8	98.9	P/P	42 - 129
2295927	Carfentrazone Ethyl	111	121	P/P	62 - 145
2295927	Chlorfenapyr	90.7	103	P/P	50 - 150
2295927	Chlorpyrifos Ethyl	79.2	103	P/P	60 - 124
2295927	Chlorpyrifos Methyl	95.2	99.4	P/P	66 - 119
2295927	Coumaphos	90.2	94.3	P/P	50 - 220
2295927	Cyanazine	122	102	P/P	17 - 225
2295927	Cyprodinil	118	135	P/P	50 - 150
2295927	Demeton	111	116	P/P	36 - 142
2295927	Diazinon	126	126	P/P	70 - 128
2295927	Difenoconazole	132	158	P/P	33 - 222
2295927	Dimethenamid	86.9	94.8	P/P	54 - 125
2295927	Dimethomorph	172	137	F/P	50 - 150
2295927	Disulfoton	100	111	P/P	49 - 133
2295927	Dithiopyr	96.3	108	P/P	55 - 123
2295927	EPTC	58.2	62.4	P/P	19 - 91.0
2295927	Ethion	68.1	86.0	P/P	13 - 143
2295927	Ethoprop	110	103	P/P	49 - 144
2295927	Etridiazole	70.8	78.9	P/P	50 - 150
2295927	Fenamiphos	87.6	89.5	P/P	32 - 136
2295927	Fenbuconazole	101	112	P/P	73 - 148
2295927	Fipronil	108	126	P/P	57 - 129
2295927	Fipronil Desulfinyl	104	116	P/P	49 - 127
2295927	Fipronil Sulfide	90.6	95.7	P/P	44 - 127
2295927	Fipronil Sulfone	79.0	84.5	P/P	35 - 126
2295927	Fluazifop-P-butyl	106	112	P/P	67 - 129
2295927	Fludioxonil	104	115	P/P	61 - 126
2295927	Flumioxazin	153	182	P/P	38 - 279
2295927	Flutolanil	95.8	113	P/P	55 - 136
2295927	Fluxapyroxad	85.0	100	P/P	33 - 140
2295927	Fonofos	96.7	97.4	P/P	58 - 125
2295927	Hexazinone	106	115	P/P	57 - 148
2295927	Imazalil	106	105	P/P	10 - 221
2295927	Iprodione	94.7	112	P/P	32 - 140
2295927	Loratadine	150	120	P/P	50 - 150
2295927	Malathion	80.1	89.6	P/P	52 - 138

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P407641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295927	Metalaxyl	94.8	105	P/P	46 - 134
2295927	Metolachlor	84.6	107	P/P	58 - 122
2295927	Metribuzin	110	113	P/P	16 - 272
2295927	Mevinphos	87.4	96.9	P/P	45 - 140
2295927	Molinate	79.2	80.0	P/P	41 - 103
2295927	Myclobutanil	99.8	109	P/P	60 - 134
2295927	Naled	87.4	108	P/P	20 - 113
2295927	Napropamide	97.5	113	P/P	50 - 150
2295927	Norflurazon	89.3	107	P/P	51 - 123
2295927	Oxadiazon	90.2	92.3	P/P	44 - 125
2295927	Oxyfluorfen	124	138	P/P	66 - 176
2295927	Parathion Ethyl	105	109	P/P	57 - 132
2295927	Parathion Methyl	124	130	P/P	59 - 156
2295927	Pendimethalin	125	124	P/P	59 - 129
2295927	Phenytoin	45.0	59.7	F/P	50 - 200
2295927	Phorate	89.5	96.0	P/P	47 - 136
2295927	Prodiamine	46.8	59.6	P/P	10 - 159
2295927	Prometon	90.8	106	P/P	59 - 127
2295927	Prometryn	98.7	111	P/P	59 - 129
2295927	Pronamide	101	113	P/P	65 - 145
2295927	Propanil	105	115	P/P	50 - 150
2295927	Propargite	81.5	106	P/P	50 - 200
2295927	Propiconazole	89.1	111	P/P	28 - 165
2295927	Pyraflufen Ethyl	99.8	109	P/P	50 - 150
2295927	Pyridaben	97.7	100	P/P	50 - 200
2295927	Pyriproxyfen	114	114	P/P	21 - 180
2295927	Simazine	110	117	P/P	63 - 147
2295927	Stirophos	70.1	80.2	P/P	50 - 150
2295927	Sulfentrazone	97.5	109	P/P	32 - 136
2295927	Tebuconazole	58.9	82.2	P/P	10 - 117
2295927	Terbufos	116	125	P/P	61 - 131
2295927	Terbuthylazine	95.5	104	P/P	62 - 126
2295927	Thiobencarb	84.3	106	P/P	50 - 150
2295927	Triadimefon	103	107	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P407479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295214	Acesulfame K	71.6	72.8	P/P	40 - 150
2295214	AMPA	86.8	86.2	P/P	40 - 150
2295214	Endothall	91.1	95.6	P/P	40 - 150
2295214	Glufosinate	93.2	92.6	P/P	40 - 150
2295214	Glyphosate	101	101	P/P	40 - 150
2295214	Sucralose	68.0	67.2	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P407620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295376	2,4-D	95.6	82.5	P/P	40 - 150
2295376	2,4,5-T	99.6	102	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P407620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295376	Acetaminophen	87.2	92.9	P/P	30 - 150
2295376	Acetamiprid	84.3	90.8	P/P	40 - 150
2295376	Afidopyropen	85.9	68.7	P/P	40 - 150
2295376	Bentazon	94.3	94.0	P/P	30 - 150
2295376	Benzovindiflupyr	83.1	77.8	P/P	40 - 150
2295376	Carbamazepine	89.3	86.6	P/P	40 - 150
2295376	Clothianidin	93.2	112	P/P	40 - 150
2295376	Dinotefuran	86.7	89.1	P/P	40 - 150
2295376	Diuron	86.6	76.1	P/P	40 - 150
2295376	Fenuron	82.4	78.2	P/P	40 - 150
2295376	Fluridone	87.4	87.9	P/P	40 - 150
2295376	Hydrocodone	101	94.2	P/P	40 - 150
2295376	Ibuprofen	84.0	68.7	P/P	40 - 150
2295376	Imazapyr	108	106	P/P	40 - 150
2295376	Imidacloprid	112	111	P/P	40 - 150
2295376	Linuron	79.1	65.9	P/P	40 - 150
2295376	Mandestrobin	86.6	85.2	P/P	40 - 150
2295376	MCPP	101	94.8	P/P	40 - 150
2295376	Naproxen	71.3	83.4	P/P	40 - 150
2295376	Primidone	163	135	F/P	40 - 150
2295376	Pyraclostrobin	80.6	81.7	P/P	40 - 150
2295376	Silvex	83.2	82.5	P/P	40 - 150
2295376	Thiamethoxam	105	95.2	P/P	40 - 150
2295376	Tolfenpyrad	57.9	48.3	P/P	30 - 150
2295376	Triclopyr	99.7	99.2	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P407610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295363	Fluoride	102	104	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P407985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2295367	Organic Carbon	93.5	98.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P407505

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295256	Turbidity	3.54	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P407589

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295242	Barium	1.91	Spike	P	0 - 20
2295242	Calcium	0.458	Spike	P	0 - 20
2295242	Iron	0.0901	Spike	P	0 - 20
2295242	Magnesium	0.567	Spike	P	0 - 20
2295242	Manganese	1.69	Spike	P	0 - 20
2295242	Potassium	0.970	Spike	P	0 - 20
2295242	Sodium	0.502	Spike	P	0 - 20
2295242	Strontium	0.142	Spike	P	0 - 20
2295242	Tin	0.194	Spike	P	0 - 20
2295242	Titanium	1.39	Spike	P	0 - 20
2295242	Vanadium	1.70	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P407869

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295295	Zinc	1.73	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P407589

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295242	Aluminum	0.680	Spike	P	0 - 20
2295242	Antimony	2.60	Spike	P	0 - 20
2295242	Arsenic	2.15	Spike	P	0 - 20
2295242	Beryllium	3.98	Spike	P	0 - 20
2295242	Boron	1.30	Spike	P	0 - 20
2295242	Cadmium	4.16	Spike	P	0 - 20
2295242	Chromium	0.953	Spike	P	0 - 20
2295242	Cobalt	2.11	Spike	P	0 - 20
2295242	Copper	1.59	Spike	P	0 - 20
2295242	Lead	2.65	Spike	P	0 - 20
2295242	Molybdenum	1.34	Spike	P	0 - 20
2295242	Nickel	1.01	Spike	P	0 - 20
2295242	Selenium	2.37	Spike	P	0 - 20
2295242	Silver	2.17	Spike	P	0 - 20
2295242	Thallium	1.81	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295206	Chloride	0.256	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P407595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295206	Sulfate	0.491	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295281	Ammonia-N	1.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295109	Kjeldahl Nitrogen	3.68	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295367	NO2NO3-N	0.549	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295280	Total-P	1.25	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295282	O-Phosphate-P	1.53	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P407641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295927	Acetochlor	7.56	Spike	P	0 - 24
2295927	Alachlor	1.16	Spike	P	0 - 24

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P407641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295927	Ametryn	7.29	Spike	P	0 - 27
2295927	Atrazine	7.19	Spike	P	0 - 29
2295927	Atrazine Desethyl	3.22	Spike	P	0 - 30
2295927	Azinphos Methyl	6.18	Spike	P	0 - 50
2295927	Azoxystrobin	0.0597	Spike	P	0 - 32
2295927	Bromacil	15.5	Spike	P	0 - 30
2295927	Butylate	13.7	Spike	P	0 - 47
2295927	Caffeine	11.4	Spike	P	0 - 60
2295927	Carbophenothion	3.13	Spike	P	0 - 24
2295927	Carfentrazone Ethyl	9.19	Spike	P	0 - 26
2295927	Chlorfenapyr	12.9	Spike	P	0 - 30
2295927	Chlorpyrifos Ethyl	26.2	Spike	P	0 - 27
2295927	Chlorpyrifos Methyl	4.22	Spike	P	0 - 22
2295927	Coumaphos	4.46	Spike	P	0 - 30
2295927	Cyanazine	18.1	Spike	P	0 - 32
2295927	Cyprodinil	13.7	Spike	P	0 - 30
2295927	Demeton	4.89	Spike	P	0 - 25
2295927	Diazinon	0.460	Spike	P	0 - 24
2295927	Difenoconazole	18.0	Spike	P	0 - 25
2295927	Dimethenamid	8.69	Spike	P	0 - 30
2295927	Dimethomorph	22.5	Spike	P	0 - 30
2295927	Disulfoton	10.3	Spike	P	0 - 26
2295927	Dithiopyr	11.1	Spike	P	0 - 22
2295927	EPTC	6.88	Spike	P	0 - 38
2295927	Ethion	23.3	Spike	P	0 - 47
2295927	Ethoprop	6.60	Spike	P	0 - 23
2295927	Etridiazole	10.8	Spike	P	0 - 30
2295927	Fenamiphos	2.12	Spike	P	0 - 34
2295927	Fenbuconazole	10.6	Spike	P	0 - 37
2295927	Fipronil	14.8	Spike	P	0 - 23
2295927	Fipronil Desulfinyl	10.2	Spike	P	0 - 26
2295927	Fipronil Sulfide	5.42	Spike	P	0 - 23
2295927	Fipronil Sulfone	6.75	Spike	P	0 - 24
2295927	Fluazifop-P-butyl	5.54	Spike	P	0 - 24
2295927	Fludioxonil	9.88	Spike	P	0 - 26
2295927	Flumioxazin	17.3	Spike	P	0 - 37
2295927	Flutolanil	16.4	Spike	P	0 - 26
2295927	Fluxapyroxad	16.2	Spike	P	0 - 34
2295927	Fonofos	0.696	Spike	P	0 - 22
2295927	Hexazinone	5.54	Spike	P	0 - 21
2295927	Imazalil	0.891	Spike	P	0 - 65
2295927	Iprodione	16.5	Spike	P	0 - 33
2295927	Loratadine	22.4	Spike	P	0 - 30
2295927	Malathion	11.2	Spike	P	0 - 26
2295927	Metalaxyl	10.4	Spike	P	0 - 38
2295927	Metolachlor	23.6	Spike	P	0 - 36
2295927	Metribuzin	2.59	Spike	P	0 - 29
2295927	Mevinphos	10.3	Spike	P	0 - 26
2295927	Molinate	1.02	Spike	P	0 - 27
2295927	Myclobutanil	8.91	Spike	P	0 - 21
2295927	Naled	21.3	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P407641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295927	Napropamide	14.7	Spike	P	0 - 30
2295927	Norflurazon	18.2	Spike	P	0 - 24
2295927	Oxadiazon	2.34	Spike	P	0 - 23
2295927	Oxyfluorfen	11.0	Spike	P	0 - 24
2295927	Parathion Ethyl	3.06	Spike	P	0 - 23
2295927	Parathion Methyl	4.61	Spike	P	0 - 23
2295927	Pendimethalin	0.456	Spike	P	0 - 31
2295927	Phenytol	28.0	Spike	P	0 - 30
2295927	Phorate	7.03	Spike	P	0 - 27
2295927	Prodiamine	24.1	Spike	P	0 - 52
2295927	Prometon	15.2	Spike	P	0 - 31
2295927	Prometryn	11.8	Spike	P	0 - 24
2295927	Pronamide	11.1	Spike	P	0 - 26
2295927	Propanil	8.98	Spike	P	0 - 30
2295927	Propargite	26.0	Spike	P	0 - 30
2295927	Propiconazole	22.0	Spike	P	0 - 31
2295927	Pyraflufen Ethyl	8.90	Spike	P	0 - 30
2295927	Pyridaben	2.22	Spike	P	0 - 30
2295927	Pyriproxyfen	0.0630	Spike	P	0 - 50
2295927	Simazine	6.30	Spike	P	0 - 25
2295927	Stirophos	13.5	Spike	P	0 - 30
2295927	Sulfentrazone	11.0	Spike	P	0 - 33
2295927	Tebuconazole	33.1	Spike	P	0 - 43
2295927	Terbufos	7.40	Spike	P	0 - 22
2295927	Terbuthylazine	8.31	Spike	P	0 - 24
2295927	Thiobencarb	23.0	Spike	P	0 - 30
2295927	Triadimefon	3.90	Spike	P	0 - 30
LFB	Acetochlor	10.6	LCS	P	0 - 22
LFB	Alachlor	13.0	LCS	P	0 - 20
LFB	Ametryn	1.63	LCS	P	0 - 25
LFB	Atrazine	5.71	LCS	P	0 - 20
LFB	Atrazine Desethyl	2.93	LCS	P	0 - 33
LFB	Azinphos Methyl	5.96	LCS	P	0 - 51
LFB	Azoxystrobin	9.08	LCS	P	0 - 47
LFB	Bromacil	6.53	LCS	P	0 - 26
LFB	Butylate	0.407	LCS	P	0 - 35
LFB	Caffeine	5.31	LCS	P	0 - 27
LFB	Carbophenothion	6.68	LCS	P	0 - 22
LFB	Carfentrazone Ethyl	10.1	LCS	P	0 - 21
LFB	Chlorfenapyr	16.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	10.6	LCS	P	0 - 23
LFB	Chlorpyrifos Methyl	6.94	LCS	P	0 - 24
LFB	Coumaphos	7.81	LCS	P	0 - 30
LFB	Cyanazine	9.37	LCS	P	0 - 37
LFB	Cyprodinil	14.8	LCS	P	0 - 30
LFB	Demeton	14.9	LCS	P	0 - 32
LFB	Diazinon	10.7	LCS	P	0 - 21
LFB	Difenoconazole	3.07	LCS	P	0 - 37
LFB	Dimethenamid	10.6	LCS	P	0 - 21
LFB	Dimethomorph	12.6	LCS	P	0 - 30
LFB	Disulfoton	3.20	LCS	P	0 - 31

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P407641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	9.69	LCS	P	0 - 21
LFB	EPTC	3.42	LCS	P	0 - 41
LFB	Ethion	9.17	LCS	P	0 - 45
LFB	Ethoprop	5.44	LCS	P	0 - 28
LFB	Etridiazole	8.19	LCS	P	0 - 30
LFB	Fenamiphos	16.4	LCS	P	0 - 28
LFB	Fenbuconazole	8.87	LCS	P	0 - 36
LFB	Fipronil	7.47	LCS	P	0 - 23
LFB	Fipronil Desulfanyl	5.71	LCS	P	0 - 22
LFB	Fipronil Sulfide	6.31	LCS	P	0 - 24
LFB	Fipronil Sulfone	12.4	LCS	P	0 - 24
LFB	Fluazifop-P-butyl	8.13	LCS	P	0 - 23
LFB	Fludioxonil	7.30	LCS	P	0 - 23
LFB	Flumioxazin	12.7	LCS	P	0 - 39
LFB	Flutolanil	5.16	LCS	P	0 - 27
LFB	Fluxapyroxad	12.6	LCS	P	0 - 38
LFB	Fonofos	12.3	LCS	P	0 - 28
LFB	Hexazinone	14.0	LCS	P	0 - 27
LFB	Imazalil	21.0	LCS	P	0 - 45
LFB	Iprodione	1.37	LCS	P	0 - 42
LFB	Loratadine	17.8	LCS	P	0 - 30
LFB	Malathion	13.2	LCS	P	0 - 23
LFB	Metalaxyl	2.87	LCS	P	0 - 41
LFB	Metolachlor	12.5	LCS	P	0 - 21
LFB	Metribuzin	9.38	LCS	P	0 - 31
LFB	Mevinphos	1.14	LCS	P	0 - 32
LFB	Molinate	6.43	LCS	P	0 - 31
LFB	Myclobutanil	7.03	LCS	P	0 - 27
LFB	Naled	8.96	LCS	P	0 - 32
LFB	Napropamide	15.0	LCS	P	0 - 30
LFB	Norflurazon	8.05	LCS	P	0 - 25
LFB	Oxadiazon	9.73	LCS	P	0 - 25
LFB	Oxyfluorfen	11.3	LCS	P	0 - 22
LFB	Parathion Ethyl	14.4	LCS	P	0 - 32
LFB	Parathion Methyl	4.38	LCS	P	0 - 30
LFB	Pendimethalin	18.2	LCS	P	0 - 39
LFB	Phenytol	14.1	LCS	P	0 - 30
LFB	Phorate	13.7	LCS	P	0 - 36
LFB	Prodiamine	16.0	LCS	P	0 - 71
LFB	Prometon	5.22	LCS	P	0 - 23
LFB	Prometryn	12.6	LCS	P	0 - 22
LFB	Pronamide	7.94	LCS	P	0 - 21
LFB	Propanil	8.09	LCS	P	0 - 30
LFB	Propargite	8.70	LCS	P	0 - 30
LFB	Propiconazole	7.93	LCS	P	0 - 23
LFB	Pyraflufen Ethyl	10.8	LCS	P	0 - 30
LFB	Pyridaben	13.4	LCS	P	0 - 30
LFB	Pyriproxyfen	9.32	LCS	P	0 - 53
LFB	Simazine	9.35	LCS	P	0 - 22
LFB	Stirophos	16.6	LCS	P	0 - 30
LFB	Sulfentrazone	6.36	LCS	P	0 - 45

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P407641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Tebuconazole	7.13	LCS	P	0 - 52
LFB	Terbufos	13.8	LCS	P	0 - 27
LFB	Terbutylazine	9.07	LCS	P	0 - 21
LFB	Thiobencarb	13.6	LCS	P	0 - 30
LFB	Triadimefon	12.0	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P407479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295214	Acesulfame K	1.63	Spike	P	0 - 30
2295214	AMPA	0.517	Spike	P	0 - 30
2295214	Endothall	4.83	Spike	P	0 - 30
2295214	Glufosinate	0.684	Spike	P	0 - 30
2295214	Glyphosate	0.288	Spike	P	0 - 30
2295214	Sucralose	0.963	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P407620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295376	2,4-D	14.7	Spike	P	0 - 30
2295376	2,4,5-T	2.51	Spike	P	0 - 30
2295376	Acetaminophen	6.38	Spike	P	0 - 30
2295376	Acetamiprid	7.42	Spike	P	0 - 30
2295376	Afidopyropen	22.3	Spike	P	0 - 30
2295376	Bentazon	0.320	Spike	P	0 - 30
2295376	Benzovindiflupyr	6.69	Spike	P	0 - 30
2295376	Carbamazepine	3.07	Spike	P	0 - 30
2295376	Clothianidin	18.0	Spike	P	0 - 30
2295376	Dinotefuran	2.68	Spike	P	0 - 30
2295376	Diuron	13.0	Spike	P	0 - 30
2295376	Fenuron	5.21	Spike	P	0 - 30
2295376	Fluridone	0.622	Spike	P	0 - 30
2295376	Hydrocodone	7.01	Spike	P	0 - 30
2295376	Ibuprofen	20.0	Spike	P	0 - 30
2295376	Imazapyr	2.16	Spike	P	0 - 30
2295376	Imidacloprid	0.881	Spike	P	0 - 30
2295376	Linuron	18.2	Spike	P	0 - 30
2295376	Mandestrobin	1.61	Spike	P	0 - 30
2295376	MCP	6.48	Spike	P	0 - 30
2295376	Naproxen	15.6	Spike	P	0 - 30
2295376	Primidone	18.7	Spike	P	0 - 30
2295376	Pyraclostrobin	1.40	Spike	P	0 - 30
2295376	Silvex	0.802	Spike	P	0 - 30
2295376	Thiamethoxam	9.84	Spike	P	0 - 30
2295376	Tolfenpyrad	18.1	Spike	P	0 - 30
2295376	Triclopyr	0.503	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P407970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295366	Color (true)	3.23	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P407608

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295363	Total Alkalinity	0.780	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P407890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295256	TDS	0.220	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P407610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295363	Fluoride	1.46	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P407985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2295367	Organic Carbon	4.61	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2295376

Field Sample ID: G4NW0427

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.2	P	30 - 160
EPA 8321B	Diuron-d6	85.5	P	30 - 160
EPA 8321B	Endothall-d6	59.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	92.2	P	30 - 160
EPA 8321B	Primidone-d5	91.0	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2295380

Field Sample ID: G4NW0427

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	71.9	P	20 - 200
EPA 8270E	Simazine-d10	121	P	73 - 135
EPA 8270E	Terbufos-d10	85.7	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A109378

Included Lab Sample IDs: 2295366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	99.9	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A109401

Included Lab Sample IDs: 2295368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109406

Included Lab Sample IDs: 2295366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A109412

Included Lab Sample IDs: 2295376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	136	135	P/P	60 - 160
Glufosinate	98.2	95.9	P/P	60 - 160
Glyphosate	99.7	98.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A109424

Included Lab Sample IDs: 2295376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	72.3	65.0	P/P	60 - 160
Endothall	77.4	68.7	P/P	60 - 160
Sucralose	73.3	81.5	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A109453

Included Lab Sample IDs: 2295366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.7	99.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A109453

Included Lab Sample IDs: 2295366

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109508

Included Lab Sample IDs: 2295367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109515

Included Lab Sample IDs: 2295367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	98.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A109520

Included Lab Sample IDs: 2295377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.8	101	P/P	90 - 110
Calcium	101	101	P/P	90 - 110
Iron	100	100	P/P	90 - 110
Magnesium	100	100	P/P	90 - 110
Manganese	102	98.9	P/P	90 - 110
Potassium	95.2	96.0	P/P	90 - 110
Sodium	99.8	99.9	P/P	90 - 110
Strontium	101	96.3	P/P	90 - 110
Tin	102	98.5	P/P	90 - 110
Titanium	99.9	95.4	P/P	90 - 110
Vanadium	98.3	95.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A109523

Included Lab Sample IDs: 2295377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	94.3	91.9	P/P	90 - 110
Antimony	91.8	92.7	P/P	90 - 110
Arsenic	97.3	99.2	P/P	90 - 110
Boron	101	95.1	P/P	90 - 110
Cadmium	97.0	97.4	P/P	90 - 110
Chromium	90.6	91.3	P/P	90 - 110
Cobalt	90.2	90.2	P/P	90 - 110
Copper	94.0	94.9	P/P	90 - 110
Molybdenum	95.8	96.0	P/P	90 - 110
Nickel	94.3	94.3	P/P	90 - 110
Selenium	93.4	93.8	P/P	90 - 110
Silver	97.4	96.6	P/P	90 - 110
Thallium	97.7	97.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A109571

Included Lab Sample IDs: 2295377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	94800	92800	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A109571

Included Lab Sample IDs: 2295377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	91400	92000	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A109611

Included Lab Sample IDs: 2295366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.4	104	P/P	85 - 115

Reference Method: EPA 8270E

Run ID: A109616

Included Lab Sample IDs: 2295380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	99.9		P	80 - 120
Ametryn	99.7		P	80 - 120
Atrazine	95.8		P	80 - 120
Atrazine Desethyl	95.6		P	80 - 120
Azinphos Methyl	91.1		P	80 - 120
Azoxystrobin	100		P	80 - 120
Bromacil	94.4		P	80 - 120
Butylate	106		P	80 - 120
Caffeine	82.9		P	80 - 120
Carbophenothion	95.4		P	80 - 120
Carfentrazone Ethyl	99.4		P	80 - 120
Chlorfenapyr	110		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	98.9		P	80 - 120
Coumaphos	98.5		P	80 - 120
Cyanazine	99.9		P	80 - 120
Cyprodinil	92.6		P	80 - 120
Demeton	93.0		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	96.9		P	80 - 120
Dimethenamid	103		P	80 - 120
Dimethomorph	97.5		P	80 - 120
Disulfoton	91.3		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	103		P	80 - 120
Ethion	99.0		P	80 - 120
Ethoprop	101		P	80 - 120
Etridiazole	94.4		P	80 - 120
Fenamiphos	95.8		P	80 - 120
Fenbuconazole	101		P	80 - 120
Fipronil	98.5		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	105		P	80 - 120
Fipronil Sulfone	107		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	98.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A109616
Included Lab Sample IDs: 2295380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Flumioxazin	96.4		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	98.1		P	80 - 120
Fonofos	99.2		P	80 - 120
Hexazinone	109		P	80 - 120
Imazalil	96.2		P	80 - 120
Iprodione	95.8		P	80 - 120
Loratadine	104		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	89.7		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	101		P	80 - 120
Naled	105		P	80 - 120
Napropamide	103		P	80 - 120
Norflurazon	99.8		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	94.1		P	80 - 120
Parathion Ethyl	96.3		P	80 - 120
Parathion Methyl	95.6		P	80 - 120
Pendimethalin	98.8		P	80 - 120
Phenytoin	99.9		P	80 - 120
Phorate	108		P	80 - 120
Prodiamine	87.4		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	95.5		P	80 - 120
Pronamide	92.6		P	80 - 120
Propanil	93.5		P	80 - 120
Propargite	92.0		P	80 - 120
Propiconazole	105		P	80 - 120
Pyraflufen Ethyl	107		P	80 - 120
Pyridaben	96.2		P	80 - 120
Pyriproxyfen	93.2		P	80 - 120
Simazine	112		P	80 - 120
Stiropfos	102		P	80 - 120
Sulfentrazone	97.0		P	80 - 120
Tebuconazole	96.4		P	80 - 120
Terbufos	103		P	80 - 120
Terbutylazine	101		P	80 - 120
Thiobencarb	101		P	80 - 120
Triadimefon	99.2		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A109634
Included Lab Sample IDs: 2295367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109640

Included Lab Sample IDs: 2295367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.6	97.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A109642

Included Lab Sample IDs: 2295377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	93.5	92.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109647

Included Lab Sample IDs: 2295367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A109663

Included Lab Sample IDs: 2295376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.6	114	P/P	50 - 150
2,4,5-T	109	119	P/P	50 - 150
Acetaminophen	97.6	96.5	P/P	60 - 160
Acetamiprid	100	94.5	P/P	50 - 150
Afidopyropen	74.2	93.0	P/P	50 - 150
Bentazon	103	130	P/P	50 - 160
Benzovindiflupyr	103	105	P/P	50 - 150
Carbamazepine	106	96.5	P/P	60 - 150
Clothianidin	127	103	P/P	60 - 150
Dinotefuran	109	85.2	P/P	50 - 150
Diuron	93.3	92.1	P/P	60 - 160
Fenuron	96.7	98.5	P/P	60 - 150
Fluridone	91.8	100	P/P	60 - 160
Hydrocodone	98.6	106	P/P	60 - 150
Ibuprofen	135	72.2	P/P	50 - 160
Imazapyr	91.6	124	P/P	50 - 150
Imidacloprid	102	104	P/P	60 - 150
Linuron	99.8	79.5	P/P	60 - 150
Mandestrobin	102	106	P/P	50 - 150
MCPP	101	89.5	P/P	50 - 150
Naproxen	133	107	P/P	50 - 160
Primidone	132	93.0	P/P	60 - 150
Pyraclostrobin	100	99.9	P/P	60 - 150
Silvex	90.7	108	P/P	50 - 150
Thiamethoxam	108	102	P/P	50 - 150
Tolfenpyrad	90.9	90.7	P/P	60 - 150
Triclopyr	105	110	P/P	50 - 150

Quality Assurance Report

Calibration Verification

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.54	
EPA 200.7 Rev. 4.4	Barium	106		99.9	102	100			1.91
	Calcium	104							0.458
	Iron	105		104	104	104			0.0901
	Magnesium	108		104	105	99.0			0.567
	Manganese	105		100	102	101			1.69
	Potassium	98.8		101	102	92.6			0.970
	Sodium	103		102	103	101			0.502
	Strontium	99.7		98.7	98.5	94.6			0.142
	Tin	105		101	101	100			0.194
	Titanium	105		102	104	103			1.39
	Vanadium	105		103	105	104			1.70
	Zinc	99.8		95.1	96.8	96.4			1.73
EPA 200.8 Rev. 5.4	Aluminum	103		100	101	102			0.680
	Antimony	99.3		102	99.6	103			2.60
	Arsenic	107		110	109	107			2.15
	Beryllium	96.6		99.4	95.1	97.3			3.98
	Boron	105		103	105	102			1.30
	Cadmium	102		107	103	105			4.16
	Chromium	98.7		98.0	97.0	101			0.953
	Cobalt	98.5		101	99.1	101			2.11
	Copper	106		102	101	103			1.59
	Lead	96.8		98.0	95.4	98.9			2.65
	Molybdenum	107		110	109	114			1.34
	Nickel	105		103	102	106			1.01
	Selenium	100		101	98.5	101			2.37
	Silver	103		104	102	103			2.17
	Thallium	106		111	109	113			1.81
EPA 300.0 Rev. 2.1	Chloride	100		101	99.9			0.256	
	Sulfate	99.5		99.2	100			0.491	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4		97.4	98.6				1.11
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		97.6	93.7				3.68
EPA 353.2 Rev. 2.0	NO2NO3-N	103		101	102				0.549
EPA 365.1 Rev. 2.0	Total-P	109		110	108				1.25
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.5		98.8	97.3				1.53
EPA 8270E	Acetochlor	121	108	108	117	10.6			7.56
	Alachlor	112	98.0	103	102	13.0			1.16
	Ametryn	109	110	118	110	1.63			7.29
	Atrazine	111	105	121	131	5.71			7.19
	Atrazine Desethyl	106	103	96.1	99.2	2.93			3.22
	Azinphos Methyl	139	131	119	127	5.96			6.18
	Azoxystrobin	109	99.2	122	122	9.08			0.0597
	Bromacil	95.8	102	82.1	99.3	6.53			15.5
	Butylate	53.5	53.3	50.3	57.7	0.407			13.7
	Caffeine	72.1	76.0	89.9	101	5.31			11.4
	Carbophenothion	98.9	92.5	95.8	98.9	6.68			3.13
	Carfentrazone Ethyl	127	115	111	121	10.1			9.19
	Chlorfenapyr	98.7	83.8	90.7	103	16.4			12.9
	Chlorpyrifos Ethyl	87.1	78.3	79.2	103	10.6			26.2
	Chlorpyrifos Methyl	99.7	93.0	95.2	99.4	6.94			4.22
	Coumaphos	105	96.8	90.2	94.3	7.81			4.46
	Cyanazine	120	110	122	102	9.37			18.1
	Cyprodinil	124	107	118	135	14.8			13.7
	Demeton	106	91.7	111	116	14.9			4.89

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Diazinon	121	109	126	126	10.7	0.460
	Difenoconazole	146	141	132	158	3.07	18.0
	Dimethenamid	98.8	88.9	86.9	94.8	10.6	8.69
	Dimethomorph	118	104	172	137	12.6	22.5
	Disulfoton	108	105	100	111	3.20	10.3
	Dithiopyr	110	99.4	96.3	108	9.69	11.1
	EPTC	57.7	55.8	58.2	62.4	3.42	6.88
	Ethion	93.2	85.0	68.1	86.0	9.17	23.3
	Ethoprop	97.5	92.3	110	103	5.44	6.60
	Etridiazole	67.5	62.2	70.8	78.9	8.19	10.8
	Fenamiphos	92.3	78.3	87.6	89.5	16.4	2.12
	Fenbuconazole	116	106	101	112	8.87	10.6
	Fipronil	123	114	108	126	7.47	14.8
	Fipronil Desulfinyl	126	119	104	116	5.71	10.2
	Fipronil Sulfide	96.5	90.6	90.6	95.7	6.31	5.42
	Fipronil Sulfone	91.5	80.8	79.0	84.5	12.4	6.75
	Fluazifop-P-butyl	118	108	106	112	8.13	5.54
	Fludioxonil	115	107	104	115	7.30	9.88
	Flumioxazin	153	173	153	182	12.7	17.3
	Flutolanil	105	99.9	95.8	113	5.16	16.4
	Fluxapyroxad	106	93.9	85.0	100	12.6	16.2
	Fonofos	96.5	85.3	96.7	97.4	12.3	0.696
	Hexazinone	111	96.7	106	115	14.0	5.54
	Imazalil	109	88.3	106	105	21.0	0.891
	Iprodione	103	102	94.7	112	1.37	16.5
	Loratadine	110	92.3	150	120	17.8	22.4
	Malathion	85.4	74.8	80.1	89.6	13.2	11.2
	Metalaxyl	102	99.6	94.8	105	2.87	10.4
	Metolachlor	104	91.7	84.6	107	12.5	23.6
	Metribuzin	107	97.5	110	113	9.38	2.59
	Mevinphos	83.2	84.1	87.4	96.9	1.14	10.3
	Molinate	72.5	68.0	79.2	80.0	6.43	1.02
	Myclobutanil	107	99.5	99.8	109	7.03	8.91
	Naled	99.5	91.0	87.4	108	8.96	21.3
	Napropamide	111	95.6	97.5	113	15.0	14.7
	Norflurazon	118	109	89.3	107	8.05	18.2
	Oxadiazon	93.7	85.0	90.2	92.3	9.73	2.34
	Oxyfluorfen	134	120	124	138	11.3	11.0
	Parathion Ethyl	108	93.4	105	109	14.4	3.06
	Parathion Methyl	124	129	124	130	4.38	4.61
	Pendimethalin	126	105	125	124	18.2	0.456
	Phenytoin	61.4	53.3	45.0	59.7	14.1	28.0
	Phorate	85.1	74.2	89.5	96.0	13.7	7.03
	Prodiamine	44.8	38.1	46.8	59.6	16.0	24.1
	Prometon	103	97.6	90.8	106	5.22	15.2
	Prometryn	111	97.7	98.7	111	12.6	11.8
	Pronamide	114	105	101	113	7.94	11.1
	Propanil	138	150	105	115	8.09	8.98
	Propargite	102	93.2	81.5	106	8.70	26.0
	Propiconazole	109	101	89.1	111	7.93	22.0
	Pyraflufen Ethyl	114	102	99.8	109	10.8	8.90
	Pyridaben	109	95.2	97.7	100	13.4	2.22
	Pyriproxyfen	122	111	114	114	9.32	0.0630
	Simazine	106	96.1	110	117	9.35	6.30

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Stirophos	64.7	54.8	70.1	80.2	16.6	13.5
	Sulfentrazone	113	106	97.5	109	6.36	11.0
	Tebuconazole	82.5	76.8	58.9	82.2	7.13	33.1
	Terbufos	110	95.4	116	125	13.8	7.40
	Terbutylazine	102	93.2	95.5	104	9.07	8.31
	Thiobencarb	107	93.5	84.3	106	13.6	23.0
	Triadimefon	109	96.5	103	107	12.0	3.90
EPA 8321B	2,4-D	105		95.6	82.5		14.7
	2,4,5-T	123		99.6	102		2.51
	Acesulfame K	108		71.6	72.8		1.63
	Acetaminophen	87.7		87.2	92.9		6.38
	Acetamiprid	88.4		84.3	90.8		7.42
	Afidopyropen	77.0		85.9	68.7		22.3
	AMPA	102		86.8	86.2		0.517
	Bentazon	124		94.3	94.0		0.320
	Benzovindiflupyr	83.0		83.1	77.8		6.69
	Carbamazepine	97.5		89.3	86.6		3.07
	Clothianidin	110		93.2	112		18.0
	Dinotefuran	83.4		86.7	89.1		2.68
	Diuron	79.9		86.6	76.1		13.0
	Endothall	81.3		91.1	95.6		4.83
	Fenuron	93.9		82.4	78.2		5.21
	Fluridone	91.9		87.4	87.9		0.622
	Glufosinate	102		93.2	92.6		0.684
	Glyphosate	93.5		101	101		0.288
	Hydrocodone	104		101	94.2		7.01
	Ibuprofen	110		84.0	68.7		20.0
	Imazapyr	103		108	106		2.16
	Imidacloprid	100		112	111		0.881
	Linuron	77.5		79.1	65.9		18.2
	Mandestrobin	89.4		86.6	85.2		1.61
	MCPP	101		101	94.8		6.48
	Naproxen	56.8		71.3	83.4		15.6
	Primidone	141		163	135		18.7
	Pyraclostrobin	70.5		80.6	81.7		1.40
	Silvex	90.5		83.2	82.5		0.802
	Sucralose	78.5		68.0	67.2		0.963
	Thiamethoxam	96.5		105	95.2		9.84
	Tolfenpyrad	33.0		57.9	48.3		18.1
	Triclopyr	106		99.7	99.2		0.503
SM 2120 B-2011	Color (true)	100				3.23	
SM 2320 B-2011	Total Alkalinity	98.4				0.780	
SM 2540 C-2011	TDS					0.220	
SM 4500 F-C-2011	Fluoride	103		102	104		1.46
SM 5310 B-2011	Organic Carbon	97.6		93.5	98.6		4.61

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2295366
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2295377

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2295377
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2295366
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2295366
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2295367
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2295367
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2295367
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2295367
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2295368
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2295380
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2295376
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2295366
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2295366
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2295377
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2295366
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2295366
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2295366
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2295367

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	12/15/2021			12/15/2021 17:52	Khloe J Berg	2295366
EPA 200.7 Rev. 4.4	12/15/2021	12/17/2021 10:40	Vijayalakshmi Reddy	12/21/2021 22:12	Josef B Mick	2295377
	12/15/2021	12/27/2021 11:00	Vijayalakshmi Reddy	01/03/2022 18:04	Josef B Mick	2295377
EPA 200.8 Rev. 5.4	12/15/2021	12/17/2021 10:40	Vijayalakshmi Reddy	12/22/2021 06:09	Alexander Thompson	2295377
	12/15/2021	12/17/2021 10:40	Vijayalakshmi Reddy	12/27/2021 18:42	Alexander Thompson	2295377
EPA 300.0 Rev. 2.1	12/15/2021			12/16/2021 22:55	Roberta Tatti	2295366
EPA 350.1 Rev. 2.0	12/15/2021			01/03/2022 13:47	Ping Hua	2295367
EPA 351.2 Rev. 2.0	12/15/2021	12/29/2021 11:36	Samantha L Bates	01/03/2022 15:49	Alexandra J Mattheus	2295367
EPA 353.2 Rev. 2.0	12/15/2021			12/21/2021 10:00	Beverly Y. Sanders	2295367
EPA 365.1 Rev. 2.0	12/15/2021	12/16/2021 12:00	Simonne.V. Calhoun	12/21/2021 15:15	Shengyu Ding	2295367
EPA 365.1 Rev. 2.0 dissolved	12/15/2021			12/15/2021 15:05	James L Waggeberby	2295368
EPA 8270E	12/15/2021	12/20/2021 08:30	Rasheda Ghaffari	12/24/2021 00:08	Michael Poppell	2295380
EPA 8321B	12/15/2021	12/15/2021 15:00	Juyoung Kim	12/15/2021 16:53	Juyoung Kim	2295376
	12/15/2021	12/15/2021 15:00	Juyoung Kim	12/15/2021 22:55	Manjita Shrestha	2295376
	12/15/2021	12/21/2021 09:00	Hoor Shaik	12/23/2021 17:50	Juyoung Kim	2295376
SM 2120 B-2011	12/15/2021			12/15/2021 15:59	Samantha L Bates	2295366
SM 2320 B-2011	12/15/2021			12/16/2021 23:01	Dale L. Simmons	2295366
SM 2340B	12/15/2021			12/21/2021 22:12	Josef B Mick	2295377
SM 2540 C-2011	12/15/2021			12/17/2021 14:20	Simonne.V. Calhoun	2295366
SM 2540 D-2011	12/15/2021			12/17/2021 14:20	Simonne.V. Calhoun	2295366
SM 4500 F-C-2011	12/15/2021			12/16/2021 23:01	Dale L. Simmons	2295366
SM 5310 B-2011	12/15/2021			12/29/2021 17:37	Khloe J Berg	2295367