Chemical Analysis Report

NE-DIST-2021-12-29-01

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

Event Description: **Moccassin / Swimming pen SCI**
Request ID: **RQ-2021-09-20-18**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
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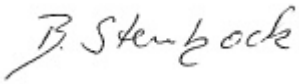
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 18-JAN-2022 12:05



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: Moccassin Branch at Winford Masters Rd. **Collection Date/Time: 12/28/2021 12:15**

Field ID: 20030557 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2297013	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P407974	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P408203	
		Sulfate	64		mg SO4/L	P408205	
	SM 2120 B-2011	Color (true)	330		PCU	P407977	
	SM 2320 B-2011	Total Alkalinity	39		mg CaCO3/L	P408097	
	SM 2540 C-2011	TDS	315		mg/L	P408299	
	SM 2540 D-2011	TSS	4	I	mg/L	P408301	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P408100	
2297014	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P408293	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P408104	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P408224	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P408032	MS
	SM 5310 B-2011	Organic Carbon	38		mg C/L	P408283	
2297015	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P407968	
2297019	EPA 8321B	2,4-D	8.5		ug/L	P408008	
		Acesulfame K	0.10	UJ	ug/L	P407946	MS
		AMPA	0.30	I	ug/L	P407946	
		2,4,5-T	0.0040	U	ug/L	P408008	
		Acetaminophen	0.0080	U	ug/L	P408008	
		Endothall	0.25	U	ug/L	P407946	
		Acetamiprid	0.0020	U	ug/L	P408008	
		Glufosinate	0.10	U	ug/L	P407946	
		Glyphosate	1.6		ug/L	P407946	
		Afidopyropen	0.0020	U	ug/L	P408008	
		Sucralose	0.010	U	ug/L	P407946	
		Bentazon	0.0039		ug/L	P408008	
		Benzovindiflupyr	0.0020	U	ug/L	P408008	
		Carbamazepine	8.0E-04	U	ug/L	P408008	
		Clothianidin	0.0020	U	ug/L	P408008	
		Dinotefuran	0.0020	U	ug/L	P408008	
		Diuron	0.0020	U	ug/L	P408008	
		Fenuron	0.016	U	ug/L	P408008	
		Fluridone	8.0E-04	U	ug/L	P408008	
		Imazapyr	0.21		ug/L	P408008	
		Hydrocodone	0.0020	U	ug/L	P408008	
		Ibuprofen	0.020	U	ug/L	P408008	
		Imidacloprid	0.019		ug/L	P408008	
		Linuron	0.0040	U	ug/L	P408008	
		Mandestrobin	0.0020	U	ug/L	P408008	
		MCPP	0.0040	U	ug/L	P408008	
		Naproxen	0.0080	U	ug/L	P408008	
		Primidone	0.0040	U	ug/L	P408008	
		Pyraclostrobin	0.0020	U	ug/L	P408008	

Field ID: 20030557 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2297019	EPA 8321B	Thiamethoxam	0.017		ug/L	P408008	
		Tolfenpyrad	0.0020	U	ug/L	P408008	
		Triclopyr	0.0040	U	ug/L	P408008	
2297020	EPA 200.7 Rev. 4.4	Barium	21.9		ug/L	P408105	
		Calcium	38.3		mg/L	P408105	
		Iron	1.12E+03		ug/L	P408105	
		Magnesium	10.1		mg/L	P408105	
		Manganese	39.1		ug/L	P408105	
		Potassium	2.5		mg/L	P408105	
		Sodium	29.9		mg/L	P408105	
		Zinc	11	I	ug/L	P408105	
	EPA 200.8 Rev. 5.4	Aluminum	647		ug/L	P408105	
		Antimony	0.071	I	ug/L	P408105	
		Arsenic	0.82		ug/L	P408105	
		Beryllium	0.071		ug/L	P408105	
		Boron**	36.0		ug/L	P408105	
		Cadmium	0.030	I	ug/L	P408105	
		Chromium	1.4	I	ug/L	P408105	
		Copper	1.24		ug/L	P408105	
		Lead	0.44		ug/L	P408105	
		Nickel	0.76	I	ug/L	P408105	
		Selenium	0.21	I	ug/L	P408105	
		Silver	0.010	U	ug/L	P408105	
		Thallium	0.10	U	ug/L	P408105	
	SM 2340B	Hardness	137		mg/L	P408105	
2297021	EPA 8270E	Acetochlor	0.24	U	ng/L	P408026	
		Alachlor	0.24	U	ng/L	P408026	
		Ametryn	0.57	U	ng/L	P408026	
		Atrazine	0.59	I	ng/L	P408026	
		Atrazine Desethyl	1.4	U	ng/L	P408026	
		Azinphos Methyl	1.9	U	ng/L	P408026	
		Azoxystrobin**	80		ng/L	P408026	
		Bromacil	0.47	U	ng/L	P408026	
		Butylate	0.38	U	ng/L	P408026	
		Caffeine**	7.3	I	ng/L	P408026	
		Carbophenothion	2.4	U	ng/L	P408026	
		Carfentrazone Ethyl**	0.095	U	ng/L	P408026	
		Chlorfenapyr**	0.17	U	ng/L	P408026	
		Chlorpyrifos Ethyl	0.93	I	ng/L	P408026	
		Chlorpyrifos Methyl	0.047	U	ng/L	P408026	
		Coumaphos**	0.47	U	ng/L	P408026	
		Cyanazine	3.1	U	ng/L	P408026	
		Cyprodinil**	0.36	I	ng/L	P408026	
		Demeton	1.4	U	ng/L	P408026	
		Diazinon	0.12	U	ng/L	P408026	

Field ID: 20030557

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2297021	EPA 8270E	Difenoconazole**	0.94	I	ng/L	P408026	
		Dimethenamid**	0.095	U	ng/L	P408026	
		Dimethomorph**	4.1	J	ng/L	P408026	LCS, MS
		Disulfoton	0.47	U	ng/L	P408026	
		Dithiopyr**	0.17	U	ng/L	P408026	
		EPTC	1.2	U	ng/L	P408026	
		Ethion	0.14	U	ng/L	P408026	
		Ethoprop	0.095	U	ng/L	P408026	
		Etridiazole**	0.14	U	ng/L	P408026	
		Fenamiphos	0.47	U	ng/L	P408026	
		Fenbuconazole**	0.12	U	ng/L	P408026	
		Fipronil	3.7		ng/L	P408026	
		Fipronil Desulfinyl**	1.1		ng/L	P408026	
		Fipronil Sulfide	2.2		ng/L	P408026	
		Fipronil Sulfone	4.0		ng/L	P408026	
		Fluazifop-P-butyl**	0.095	U	ng/L	P408026	
		Fludioxonil**	0.28	I	ng/L	P408026	
		Flumioxazin**	1.7	U	ng/L	P408026	
		Flutolanil**	0.56		ng/L	P408026	
		Fluxapyroxad**	0.095	U	ng/L	P408026	
		Fonofos	0.19	U	ng/L	P408026	
		Hexazinone	0.47	U	ng/L	P408026	
		Imazalil**	0.71	U	ng/L	P408026	
		Iprodione**	0.57	U	ng/L	P408026	
		Loratadine**	0.095	UJ	ng/L	P408026	LCS
		Malathion	0.33	U	ng/L	P408026	
		Metalaxyl	1.5	I	ng/L	P408026	
		Metolachlor	64		ng/L	P408026	
		Metribuzin	2.4	U	ng/L	P408026	
		Mevinphos	0.99	U	ng/L	P408026	
		Molinate	0.28	U	ng/L	P408026	
		Myclobutanil**	0.24	U	ng/L	P408026	
		Naled**	1.4	U	ng/L	P408026	
		Napropamide**	4.3		ng/L	P408026	
		Norflurazon	0.47	U	ng/L	P408026	
		Oxadiazon	54		ng/L	P408026	
		Oxyfluorfen**	0.14	U	ng/L	P408026	
		Parathion Ethyl	0.24	U	ng/L	P408026	
		Parathion Methyl	0.52	U	ng/L	P408026	
		Pendimethalin	9.1		ng/L	P408026	
		Phenytoin**	3.3	UJ	ng/L	P408026	LCS, MS
		Phorate	0.50	U	ng/L	P408026	
		Prodiamine**	0.28	U	ng/L	P408026	
		Prometon	0.85	U	ng/L	P408026	
		Prometryn	0.19	U	ng/L	P408026	

Field ID: 20030557 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2297021	EPA 8270E	Pronamide**	0.14	U	ng/L	P408026	
		Propanil**	0.12	U	ng/L	P408026	
		Propargite**	1.4	U	ng/L	P408026	
		Propiconazole**	22		ng/L	P408026	
		Pyraflufen Ethyl**	0.24	U	ng/L	P408026	
		Pyridaben**	0.43	U	ng/L	P408026	
		Pyriproxyfen**	0.12	U	ng/L	P408026	
		Simazine	3.8		ng/L	P408026	
		Stirophos**	0.12	U	ng/L	P408026	
		Sulfentrazone**	3.2		ng/L	P408026	
		Tebuconazole**	1.1	I	ng/L	P408026	
		Terbufos	0.095	U	ng/L	P408026	
		Terbuthylazine	0.40	U	ng/L	P408026	
		Thiobencarb**	0.57	U	ng/L	P408026	
		Triadimefon**	0.24	U	ng/L	P408026	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: The surrogate 2,4-D-d3 recovery could not be assessed due to an elevated level of 2,4-D in the sample matrix.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P407974

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408105

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408105

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: P408203

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408205

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408293

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: P408104

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408224

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408032

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407968

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

Reference Method: EPA 8270E
Batch ID: P408026

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
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	2.5	U	ng/L
Carbophenothion	2.5	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P408026

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P408026

Component	Result	Code	Units
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	2.5	U	ng/L
Metribuzin	2.5	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
Phenytoin	3.5	U	ng/L
Phenytoin	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P408026

Component	Result	Code	Units
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: P407946

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: P408008

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P408008

Component	Result	Code	Units
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
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: P407977

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P408097

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

Reference Method: SM 2540 C-2011
Batch ID: P408299

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P408301

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P408100

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P408283

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: P408105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	105		P	85 - 115
Calcium	106		P	85 - 115
Iron	112		P	85 - 115
Magnesium	110		P	85 - 115
Manganese	107		P	85 - 115
Potassium	105		P	85 - 115
Sodium	106		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	98.8		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	99.6		P	85 - 115
Boron	97.5		P	85 - 115
Cadmium	99.2		P	85 - 115
Chromium	100		P	85 - 115
Copper	103		P	85 - 115
Lead	96.3		P	85 - 115
Nickel	104		P	85 - 115
Selenium	101		P	85 - 115
Silver	101		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408203

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408205

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408104

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408224

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408032

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: P407968

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

Reference Method: EPA 8270E
Batch ID: P408026

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	108		P	70 - 121
Alachlor	99.3		P	70 - 119
Ametryn	105		P	61 - 135
Atrazine	98.4		P	76 - 123
Atrazine Desethyl	71.5		P	35 - 140
Azinphos Methyl	107		P	57 - 163
Azoxystrobin	113		P	43 - 231
Bromacil	93.1		P	42 - 123
Butylate	60.5		P	34 - 92.0
Caffeine	76.1		P	70 - 130
Carbophenothion	92.1		P	61 - 121
Carfentrazone Ethyl	106		P	62 - 139
Chlorfenapyr	84.8		P	50 - 150
Chlorpyrifos Ethyl	86.2		P	67 - 121
Chlorpyrifos Methyl	96.7		P	67 - 120
Coumaphos	77.6		P	50 - 220
Cyanazine	133		P	20 - 226
Cyprodinil	112		P	50 - 150
Demeton	125		P	35 - 125
Diazinon	110		P	70 - 122
Difenoconazole	76.4		P	56 - 186
Dimethenamid	84.1		P	67 - 119
Dimethomorph	198		F	50 - 150
Disulfoton	98.3		P	47 - 120
Dithiopyr	98.5		P	67 - 118
EPTC	60.8		P	33 - 90.0
Ethion	71.6		P	40 - 133
Ethoprop	87.3		P	61 - 121
Etridiazole	72.7		P	50 - 150
Fenamiphos	90.2		P	31 - 139
Fenbuconazole	80.9		P	66 - 141
Fipronil	105		P	62 - 129
Fipronil Desulfinyl	110		P	59 - 126
Fipronil Sulfide	90.2		P	63 - 117

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P408026

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Sulfone	81.0		P	57 - 117
Fluazifop-P-butyl	92.9		P	63 - 124
Fludioxonil	98.4		P	63 - 123
Flumioxazin	87.0		P	34 - 245
Flutolanil	91.1		P	56 - 131
Fluxapyroxad	82.6		P	57 - 117
Fonofos	89.9		P	61 - 116
Hexazinone	94.3		P	55 - 138
Imazalil	108		P	33 - 143
Iprodione	97.1		P	59 - 118
Loratadine	180		F	50 - 150
Malathion	88.3		P	62 - 138
Metalaxyl	94.5		P	24 - 147
Metolachlor	90.3		P	68 - 118
Metribuzin	107		P	20 - 239
Mevinphos	82.8		P	46 - 124
Molinate	72.8		P	46 - 100
Myclobutanil	96.0		P	32 - 149
Naled	86.4		P	32 - 95.0
Napropamide	87.3		P	50 - 150
Norflurazon	89.0		P	57 - 127
Oxadiazon	77.3		P	63 - 118
Oxyfluorfen	114		P	69 - 137
Parathion Ethyl	100		P	70 - 113
Parathion Methyl	118		P	71 - 130
Pendimethalin	113		P	55 - 118
Phenytoin	34.9		F	50 - 200
Phorate	74.6		P	46 - 125
Prodiamine	50.4		P	20 - 141
Prometon	98.3		P	54 - 122
Prometryn	99.3		P	66 - 124
Pronamide	103		P	79 - 122
Propanil	120		P	50 - 150
Propargite	83.4		P	50 - 200
Propiconazole	94.7		P	61 - 126
Pyraflufen Ethyl	97.9		P	50 - 150
Pyridaben	84.0		P	50 - 200
Pyriproxyfen	81.3		P	52 - 131
Simazine	95.7		P	75 - 128
Stirophos	75.1		P	50 - 150
Sulfentrazone	63.6		P	20 - 132
Tebuconazole	66.0		P	20 - 116
Terbufos	116		P	61 - 117
Terbuthylazine	90.4		P	74 - 116
Thiobencarb	97.9		P	50 - 150
Triadimefon	95.7		P	50 - 150

Reference Method: EPA 8321B
Batch ID: P407946

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P407946

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	104		P	40 - 150
Endothall	101		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	97.3		P	40 - 150
Sucralose	97.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P408008

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.0		P	40 - 150
2,4,5-T	71.6		P	40 - 150
Acetaminophen	93.1		P	30 - 150
Acetamiprid	83.1		P	40 - 150
Afidopyropen	71.9		P	40 - 150
Bentazon	108		P	30 - 150
Benzovindiflupyr	85.7		P	40 - 150
Carbamazepine	91.2		P	40 - 150
Clothianidin	99.4		P	40 - 150
Dinotefuran	81.8		P	40 - 150
Diuron	95.9		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	96.4		P	40 - 150
Hydrocodone	91.4		P	40 - 150
Ibuprofen	78.9		P	40 - 150
Imazapyr	97.2		P	40 - 150
Imidacloprid	97.6		P	40 - 150
Linuron	96.6		P	40 - 150
Mandestrobin	91.3		P	40 - 150
MCPP	87.1		P	40 - 150
Naproxen	76.7		P	40 - 150
Primidone	95.2		P	40 - 150
Pyraclostrobin	90.3		P	40 - 150
Thiamethoxam	93.2		P	40 - 150
Tolfenpyrad	46.7		P	30 - 150
Triclopyr	70.0		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P407977

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P408097

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.5		P	94 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P408100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P408283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296796	Barium	102	99.9	P/P	80 - 120
2296796	Calcium	101		P	80 - 120
2296796	Iron	109	109	P/P	80 - 120
2296796	Magnesium	105	105	P/P	80 - 120
2296796	Manganese	103	102	P/P	80 - 120
2296796	Potassium	103	102	P/P	80 - 120
2296796	Sodium	105	104	P/P	80 - 120
2296796	Zinc	100	99.8	P/P	80 - 120
2296802	Barium	105		P	80 - 120
2296802	Calcium	103		P	80 - 120
2296802	Iron	112		P	80 - 120
2296802	Magnesium	105		P	80 - 120
2296802	Manganese	105		P	80 - 120
2296802	Potassium	109		P	80 - 120
2296802	Sodium	106		P	80 - 120
2296802	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296796	Aluminum	99.0	98.3	P/P	80 - 120
2296796	Antimony	101	100	P/P	80 - 120
2296796	Arsenic	99.9	99.1	P/P	80 - 120
2296796	Beryllium	99.0	98.5	P/P	80 - 120
2296796	Boron	99.8	100	P/P	80 - 120
2296796	Cadmium	102	101	P/P	80 - 120
2296796	Chromium	101	100	P/P	80 - 120
2296796	Copper	97.7	97.7	P/P	80 - 120
2296796	Lead	94.7	96.0	P/P	80 - 120
2296796	Nickel	97.7	97.7	P/P	80 - 120
2296796	Selenium	99.5	98.8	P/P	80 - 120
2296796	Silver	99.3	99.5	P/P	80 - 120
2296796	Thallium	108	108	P/P	80 - 120
2296802	Aluminum	101		P	80 - 120
2296802	Antimony	101		P	80 - 120
2296802	Arsenic	100		P	80 - 120
2296802	Beryllium	101		P	80 - 120
2296802	Boron	102		P	80 - 120
2296802	Cadmium	102		P	80 - 120
2296802	Chromium	103		P	80 - 120
2296802	Copper	99.7		P	80 - 120
2296802	Lead	97.3		P	80 - 120
2296802	Nickel	98.3		P	80 - 120
2296802	Selenium	101		P	80 - 120
2296802	Silver	101		P	80 - 120
2296802	Thallium	110		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408203

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408203

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296786	Chloride	102		P	90 - 110
2296876	Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296786	Sulfate	100		P	90 - 110
2296876	Sulfate	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297057	Ammonia-N	94.6	94.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297134	NO2NO3-N	98.8	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297039	Total-P	110	113	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296909	O-Phosphate-P	100	98.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P408026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297065	Acetochlor	108	105	P/P	66 - 122
2297065	Alachlor	92.7	96.9	P/P	65 - 122
2297065	Ametryn	106	108	P/P	45 - 173
2297065	Atrazine	92.9	93.2	P/P	70 - 134
2297065	Atrazine Desethyl	69.8	69.6	P/P	25 - 150
2297065	Azinphos Methyl	106	110	P/P	44 - 174
2297065	Azoxystrobin	107	102	P/P	10 - 268
2297065	Bromacil	82.8	90.1	P/P	31 - 145
2297065	Butylate	59.5	72.2	P/P	15 - 97.0
2297065	Caffeine	75.2	79.1	P/P	70 - 130
2297065	Carbophenothion	92.7	96.6	P/P	42 - 129
2297065	Carfentrazone Ethyl	110	109	P/P	62 - 145
2297065	Chlorfenapyr	86.8	84.7	P/P	50 - 150
2297065	Chlorpyrifos Ethyl	82.8	89.3	P/P	60 - 124

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P408026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297065	Chlorpyrifos Methyl	90.4	95.0	P/P	66 - 119
2297065	Coumaphos	94.3	97.1	P/P	50 - 220
2297065	Cyanazine	124	140	P/P	17 - 225
2297065	Cyprodinil	109	107	P/P	50 - 150
2297065	Demeton	110	123	P/P	36 - 142
2297065	Diazinon	113	108	P/P	70 - 128
2297065	Difenoconazole	129	110	P/P	33 - 222
2297065	Dimethenamid	82.1	79.9	P/P	54 - 125
2297065	Dimethomorph	149	158	P/F	50 - 150
2297065	Disulfoton	94.2	93.1	P/P	49 - 133
2297065	Dithiopyr	104	98.6	P/P	55 - 123
2297065	EPTC	60.1	75.3	P/P	19 - 91.0
2297065	Ethion	64.5	63.9	P/P	13 - 143
2297065	Ethoprop	88.2	94.5	P/P	49 - 144
2297065	Etridiazole	74.2	83.6	P/P	50 - 150
2297065	Fenamiphos	84.2	91.1	P/P	32 - 136
2297065	Fenbuconazole	104	103	P/P	73 - 148
2297065	Fipronil	110	107	P/P	57 - 129
2297065	Fipronil Desulfinyl	110	108	P/P	49 - 127
2297065	Fipronil Sulfide	87.0	91.9	P/P	44 - 127
2297065	Fipronil Sulfone	74.4	78.9	P/P	35 - 126
2297065	Fluazifop-P-butyl	101	99.5	P/P	67 - 129
2297065	Fludioxonil	93.6	96.1	P/P	61 - 126
2297065	Flumioxazin	142	130	P/P	38 - 279
2297065	Flutolanil	90.1	93.3	P/P	55 - 136
2297065	Fluxapyroxad	82.0	86.0	P/P	33 - 140
2297065	Fonofos	86.3	98.5	P/P	58 - 125
2297065	Hexazinone	86.2	90.2	P/P	57 - 148
2297065	Imazalil	100	85.0	P/P	10 - 221
2297065	Iprodione	101	97.9	P/P	32 - 140
2297065	Loratadine	134	146	P/P	50 - 150
2297065	Malathion	85.9	88.1	P/P	52 - 138
2297065	Metalaxyl	93.4	92.0	P/P	46 - 134
2297065	Metolachlor	92.6	91.2	P/P	58 - 122
2297065	Metribuzin	91.9	102	P/P	16 - 272
2297065	Mevinphos	79.1	84.9	P/P	45 - 140
2297065	Molinate	71.1	82.2	P/P	41 - 103
2297065	Myclobutanil	95.3	93.7	P/P	60 - 134
2297065	Naled	87.1	98.2	P/P	20 - 113
2297065	Napropamide	90.4	92.9	P/P	50 - 150
2297065	Norflurazon	86.7	87.4	P/P	51 - 123
2297065	Oxadiazon	85.2	82.1	P/P	44 - 125
2297065	Oxyfluorfen	120	115	P/P	66 - 176
2297065	Parathion Ethyl	91.0	95.1	P/P	57 - 132
2297065	Parathion Methyl	106	109	P/P	59 - 156
2297065	Pendimethalin	95.0	117	P/P	59 - 129
2297065	Phenytoin	41.9	39.2	F/F	50 - 200
2297065	Phorate	81.9	84.9	P/P	47 - 136
2297065	Prodiamine	47.7	53.8	P/P	10 - 159
2297065	Prometon	94.1	88.7	P/P	59 - 127
2297065	Prometryn	97.8	96.1	P/P	59 - 129
2297065	Pronamide	96.3	92.7	P/P	65 - 145

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P408026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297065	Propanil	116	121	P/P	50 - 150
2297065	Propargite	89.4	81.4	P/P	50 - 200
2297065	Propiconazole	97.9	97.7	P/P	28 - 165
2297065	Pyraflufen Ethyl	103	102	P/P	50 - 150
2297065	Pyridaben	94.9	101	P/P	50 - 200
2297065	Pyriproxyfen	89.2	90.9	P/P	21 - 180
2297065	Simazine	85.9	87.7	P/P	63 - 147
2297065	Stirophos	68.9	72.6	P/P	50 - 150
2297065	Sulfentrazone	77.8	80.6	P/P	32 - 136
2297065	Tebuconazole	68.2	63.3	P/P	10 - 117
2297065	Terbufos	109	115	P/P	61 - 131
2297065	Terbuthylazine	90.6	85.0	P/P	62 - 126
2297065	Thiobencarb	102	100	P/P	50 - 150
2297065	Triadimefon	99.0	98.0	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P407946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2297019	Acesulfame K	29.8	29.2	F/F	40 - 150
2297019	AMPA	70.6	71.8	P/P	40 - 150
2297019	Endothall	58.4	60.4	P/P	40 - 150
2297019	Glufosinate	95.1	93.1	P/P	40 - 150
2297019	Glyphosate	68.1	72.9	P/P	40 - 150
2297019	Sucralose	113	112	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P408008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296677	2,4-D	87.0	86.6	P/P	40 - 150
2296677	2,4,5-T	75.7	74.6	P/P	40 - 150
2296677	Acetaminophen	103	117	P/P	30 - 150
2296677	Acetamiprid	95.4	102	P/P	40 - 150
2296677	Afidopyropen	81.0	86.5	P/P	40 - 150
2296677	Bentazon	88.9	95.1	P/P	30 - 150
2296677	Benzovindiflupyr	77.2	85.2	P/P	40 - 150
2296677	Carbamazepine	93.1	96.9	P/P	40 - 150
2296677	Clothianidin	104	110	P/P	40 - 150
2296677	Dinotefuran	84.5	87.7	P/P	40 - 150
2296677	Diuron	92.8	81.3	P/P	40 - 150
2296677	Fenuron	90.4	95.2	P/P	40 - 150
2296677	Fluridone	97.4	97.1	P/P	40 - 150
2296677	Hydrocodone	89.7	97.1	P/P	40 - 150
2296677	Ibuprofen	77.2	71.3	P/P	40 - 150
2296677	Imazapyr	103	108	P/P	40 - 150
2296677	Imidacloprid	111	123	P/P	40 - 150
2296677	Linuron	94.7	71.8	P/P	40 - 150
2296677	Mandestrobin	84.4	89.1	P/P	40 - 150
2296677	MCPP	80.8	89.1	P/P	40 - 150
2296677	Naproxen	60.2	71.6	P/P	40 - 150
2296677	Primidone	105	79.3	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P408008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296677	Pyraclostrobin	85.9	83.5	P/P	40 - 150
2296677	Thiamethoxam	110	119	P/P	40 - 150
2296677	Tolfenpyrad	44.8	44.5	P/P	30 - 150
2296677	Triclopyr	72.0	72.7	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P408100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296786	Fluoride	99.1	99.1	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P408283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2296865	Organic Carbon	96.1	94.3	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P407974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296875	Turbidity	8.64	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296796	Barium	1.62	Spike	P	0 - 20
2296796	Calcium	1.06	Spike	P	0 - 20
2296796	Iron	0.303	Spike	P	0 - 20
2296796	Magnesium	0.124	Spike	P	0 - 20
2296796	Manganese	1.06	Spike	P	0 - 20
2296796	Potassium	0.330	Spike	P	0 - 20
2296796	Sodium	0.290	Spike	P	0 - 20
2296796	Zinc	0.159	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296796	Aluminum	0.724	Spike	P	0 - 20
2296796	Antimony	0.877	Spike	P	0 - 20
2296796	Arsenic	0.688	Spike	P	0 - 20
2296796	Beryllium	0.528	Spike	P	0 - 20
2296796	Boron	0.635	Spike	P	0 - 20
2296796	Cadmium	1.51	Spike	P	0 - 20
2296796	Chromium	0.320	Spike	P	0 - 20
2296796	Copper	0.0154	Spike	P	0 - 20
2296796	Lead	1.34	Spike	P	0 - 20
2296796	Nickel	0.0112	Spike	P	0 - 20
2296796	Selenium	0.640	Spike	P	0 - 20
2296796	Silver	0.272	Spike	P	0 - 20
2296796	Thallium	0.629	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408203

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296786	Chloride	0.0106	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P408205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296786	Sulfate	0.386	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297057	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296878	Kjeldahl Nitrogen	3.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297134	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297039	Total-P	2.26	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P407968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296909	O-Phosphate-P	1.41	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P408026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297065	Acetochlor	2.70	Spike	P	0 - 24
2297065	Alachlor	4.34	Spike	P	0 - 24
2297065	Ametryn	2.45	Spike	P	0 - 27
2297065	Atrazine	0.365	Spike	P	0 - 29
2297065	Atrazine Desethyl	0.281	Spike	P	0 - 30
2297065	Azinphos Methyl	4.07	Spike	P	0 - 50
2297065	Azoxystrobin	4.81	Spike	P	0 - 32
2297065	Bromacil	8.46	Spike	P	0 - 30
2297065	Butylate	19.2	Spike	P	0 - 47
2297065	Caffeine	5.04	Spike	P	0 - 60
2297065	Carbophenothion	4.13	Spike	P	0 - 24
2297065	Carfentrazone Ethyl	0.322	Spike	P	0 - 26
2297065	Chlorfenapyr	2.45	Spike	P	0 - 30
2297065	Chlorpyrifos Ethyl	7.49	Spike	P	0 - 27
2297065	Chlorpyrifos Methyl	5.00	Spike	P	0 - 22
2297065	Coumaphos	2.96	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P408026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297065	Cyanazine	11.4	Spike	P	0 - 32
2297065	Cyprodinil	2.36	Spike	P	0 - 30
2297065	Demeton	10.9	Spike	P	0 - 25
2297065	Diazinon	4.30	Spike	P	0 - 24
2297065	Difenoconazole	15.8	Spike	P	0 - 25
2297065	Dimethenamid	2.71	Spike	P	0 - 30
2297065	Dimethomorph	5.57	Spike	P	0 - 30
2297065	Disulfoton	1.16	Spike	P	0 - 26
2297065	Dithiopyr	5.13	Spike	P	0 - 22
2297065	EPTC	22.4	Spike	P	0 - 38
2297065	Ethion	0.875	Spike	P	0 - 47
2297065	Ethoprop	6.92	Spike	P	0 - 23
2297065	Etridiazole	12.0	Spike	P	0 - 30
2297065	Fenamiphos	7.86	Spike	P	0 - 34
2297065	Fenbuconazole	0.859	Spike	P	0 - 37
2297065	Fipronil	3.21	Spike	P	0 - 23
2297065	Fipronil Desulfinyl	1.64	Spike	P	0 - 26
2297065	Fipronil Sulfide	5.52	Spike	P	0 - 23
2297065	Fipronil Sulfone	5.82	Spike	P	0 - 24
2297065	Fluazifop-P-butyl	1.11	Spike	P	0 - 24
2297065	Fludioxonil	2.64	Spike	P	0 - 26
2297065	Flumioxazin	8.35	Spike	P	0 - 37
2297065	Flutolanil	3.53	Spike	P	0 - 26
2297065	Fluxapyroxad	4.79	Spike	P	0 - 34
2297065	Fonofos	13.1	Spike	P	0 - 22
2297065	Hexazinone	4.52	Spike	P	0 - 21
2297065	Imazalil	16.3	Spike	P	0 - 65
2297065	Iprodione	2.75	Spike	P	0 - 33
2297065	Loratadine	8.33	Spike	P	0 - 30
2297065	Malathion	2.61	Spike	P	0 - 26
2297065	Metalaxyl	1.50	Spike	P	0 - 38
2297065	Metolachlor	1.57	Spike	P	0 - 36
2297065	Metribuzin	10.8	Spike	P	0 - 29
2297065	Mevinphos	6.96	Spike	P	0 - 26
2297065	Molinate	14.5	Spike	P	0 - 27
2297065	Myclobutanil	1.75	Spike	P	0 - 21
2297065	Naled	11.9	Spike	P	0 - 26
2297065	Napropamide	2.78	Spike	P	0 - 30
2297065	Norflurazon	0.799	Spike	P	0 - 24
2297065	Oxadiazon	3.77	Spike	P	0 - 23
2297065	Oxyfluorfen	3.81	Spike	P	0 - 24
2297065	Parathion Ethyl	4.44	Spike	P	0 - 23
2297065	Parathion Methyl	2.94	Spike	P	0 - 23
2297065	Pendimethalin	20.7	Spike	P	0 - 31
2297065	Phenytoin	6.64	Spike	P	0 - 30
2297065	Phorate	3.67	Spike	P	0 - 27
2297065	Prodiamine	12.0	Spike	P	0 - 52
2297065	Prometon	5.96	Spike	P	0 - 31
2297065	Prometryn	1.67	Spike	P	0 - 24
2297065	Pronamide	3.88	Spike	P	0 - 26
2297065	Propanil	4.32	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P408026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297065	Propargite	9.40	Spike	P	0 - 30
2297065	Propiconazole	0.228	Spike	P	0 - 31
2297065	Pyraflufen Ethyl	1.02	Spike	P	0 - 30
2297065	Pyridaben	6.42	Spike	P	0 - 30
2297065	Pyriproxyfen	1.87	Spike	P	0 - 50
2297065	Simazine	2.09	Spike	P	0 - 25
2297065	Stirophos	5.26	Spike	P	0 - 30
2297065	Sulfentrazone	3.47	Spike	P	0 - 33
2297065	Tebuconazole	7.38	Spike	P	0 - 43
2297065	Terbufos	4.74	Spike	P	0 - 22
2297065	Terbuthylazine	6.38	Spike	P	0 - 24
2297065	Thiobencarb	1.81	Spike	P	0 - 30
2297065	Triadimefon	1.01	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P407946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2297019	Acesulfame K	2.21	Spike	P	0 - 30
2297019	AMPA	1.38	Spike	P	0 - 30
2297019	Endothall	3.39	Spike	P	0 - 30
2297019	Glufosinate	2.17	Spike	P	0 - 30
2297019	Glyphosate	3.62	Spike	P	0 - 30
2297019	Sucralose	0.202	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P408008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296677	2,4-D	0.404	Spike	P	0 - 30
2296677	2,4,5-T	1.49	Spike	P	0 - 30
2296677	Acetaminophen	12.9	Spike	P	0 - 30
2296677	Acetamiprid	6.82	Spike	P	0 - 30
2296677	Afidopyropen	6.59	Spike	P	0 - 30
2296677	Bentazon	4.97	Spike	P	0 - 30
2296677	Benzovindiflupyr	9.79	Spike	P	0 - 30
2296677	Carbamazepine	3.98	Spike	P	0 - 30
2296677	Clothianidin	5.36	Spike	P	0 - 30
2296677	Dinotefuran	3.66	Spike	P	0 - 30
2296677	Diuron	13.3	Spike	P	0 - 30
2296677	Fenuron	5.09	Spike	P	0 - 30
2296677	Fluridone	0.226	Spike	P	0 - 30
2296677	Hydrocodone	8.00	Spike	P	0 - 30
2296677	Ibuprofen	7.99	Spike	P	0 - 30
2296677	Imazapyr	3.60	Spike	P	0 - 30
2296677	Imidacloprid	9.47	Spike	P	0 - 30
2296677	Linuron	27.5	Spike	P	0 - 30
2296677	Mandestrobin	5.36	Spike	P	0 - 30
2296677	MCPP	9.88	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P408008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296677	Naproxen	17.3	Spike	P	0 - 30
2296677	Primidone	27.9	Spike	P	0 - 30
2296677	Pyraclostrobin	2.85	Spike	P	0 - 30
2296677	Thiamethoxam	7.46	Spike	P	0 - 30
2296677	Tolfenpyrad	0.672	Spike	P	0 - 30
2296677	Triclopyr	0.889	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P407977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296877	Color (true)	0.727	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P408097

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296786	Total Alkalinity	1.65	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P408299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296877	TDS	0.858	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P408100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296786	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P408283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2296865	Organic Carbon	1.43	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2297019
Field Sample ID: 20030557

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	85.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	109	P	30 - 160
EPA 8321B	Diuron-d6	88.2	P	30 - 160
EPA 8321B	Endothall-d6	64.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.5	P	30 - 160
EPA 8321B	Primidone-d5	96.6	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2297021
Field Sample ID: 20030557

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	52.8	P	20 - 200
EPA 8270E	Simazine-d10	108	P	73 - 135
EPA 8270E	Terbufos-d10	118	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A109609
Included Lab Sample IDs: 2297015

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A109612
Included Lab Sample IDs: 2297013

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

Reference Method: SM 2120 B-2011
Run ID: A109615
Included Lab Sample IDs: 2297013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	101	P/P	85 - 115

Reference Method: SM 2320 B-2011
Run ID: A109677
Included Lab Sample IDs: 2297013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.0	96.7	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A109677
Included Lab Sample IDs: 2297013

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

Reference Method: EPA 8321B
Run ID: A109682
Included Lab Sample IDs: 2297019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	111	102	P/P	50 - 150
2,4,5-T	118	102	P/P	50 - 150
Acetaminophen	103	110	P/P	60 - 160
Acetamiprid	105	108	P/P	50 - 150
Afidopyropen	96.2	108	P/P	50 - 150
Bentazon	104	104	P/P	50 - 160
Benzovindiflupyr	104	118	P/P	50 - 150
Carbamazepine	102	96.0	P/P	60 - 150
Clothianidin	94.5	105	P/P	60 - 150
Dinotefuran	88.4	110	P/P	50 - 150
Diuron	106	109	P/P	60 - 160
Fenuron	98.2	101	P/P	60 - 150
Fluridone	101	98.6	P/P	60 - 160
Hydrocodone	105	96.1	P/P	60 - 150
Ibuprofen	89.8	130	P/P	50 - 160
Imazapyr	110	112	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A109682
Included Lab Sample IDs: 2297019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	98.9	106	P/P	60 - 150
Linuron	99.3	104	P/P	60 - 150
Mandestrobin	106	108	P/P	50 - 150
MCPP	93.5	110	P/P	50 - 150
Naproxen	84.6	93.1	P/P	50 - 160
Primidone	87.6	105	P/P	60 - 150
Pyraclostrobin	103	104	P/P	60 - 150
Thiamethoxam	98.4	98.6	P/P	50 - 150
Tolfenpyrad	97.4	104	P/P	60 - 150
Triclopyr	99.1	97.3	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A109710
Included Lab Sample IDs: 2297020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	102	P/P	90 - 110
Calcium	103	104	P/P	90 - 110
Iron	107	108	P/P	90 - 110
Magnesium	104	106	P/P	90 - 110
Manganese	104	104	P/P	90 - 110
Potassium	99.9	101	P/P	90 - 110
Sodium	102	104	P/P	90 - 110
Zinc	99.4	99.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A109711
Included Lab Sample IDs: 2297020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	98.2	P/P	90 - 110
Antimony	97.4	97.5	P/P	90 - 110
Arsenic	100	97.6	P/P	90 - 110
Boron	96.6	101	P/P	90 - 110
Cadmium	97.9	98.0	P/P	90 - 110
Chromium	97.7	96.2	P/P	90 - 110
Copper	100	94.0	P/P	90 - 110
Lead	92.9	92.1	P/P	90 - 110
Nickel	101	93.7	P/P	90 - 110
Selenium	98.9	98.4	P/P	90 - 110
Silver	98.9	97.3	P/P	90 - 110
Thallium	103	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A109717
Included Lab Sample IDs: 2297013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	105	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A109728
Included Lab Sample IDs: 2297014

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A109755
Included Lab Sample IDs: 2297020

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	98.6	95.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A109757
Included Lab Sample IDs: 2297014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	92.3	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A109764
Included Lab Sample IDs: 2297014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.3	99.6	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A109768
Included Lab Sample IDs: 2297019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	128	128	P/P	60 - 160
Glufosinate	97.1	102	P/P	60 - 160
Glyphosate	94.5	99.4	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A109770
Included Lab Sample IDs: 2297014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.7	97.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A109771
Included Lab Sample IDs: 2297019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	102	P/P	60 - 160
Endothall	97.2	100	P/P	60 - 160
Sucralose	94.5	99.3	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A109776
Included Lab Sample IDs: 2297021

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.8		P	80 - 120
Alachlor	99.3		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	99.2		P	80 - 120
Atrazine Desethyl	100		P	80 - 120
Azinphos Methyl	105		P	80 - 120
Azoxystrobin	100		P	80 - 120
Bromacil	97.1		P	80 - 120
Butylate	102		P	80 - 120
Caffeine	93.7		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	99.3		P	80 - 120
Chlorfenapyr	104		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	101		P	80 - 120
Cyanazine	97.9		P	80 - 120
Cyprodinil	110		P	80 - 120
Demeton	95.9		P	80 - 120
Diazinon	98.9		P	80 - 120
Difenoconazole	100		P	80 - 120
Dimethenamid	99.7		P	80 - 120
Disulfoton	88.8		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	100		P	80 - 120
Ethion	98.9		P	80 - 120
Ethoprop	98.7		P	80 - 120
Etridiazole	98.6		P	80 - 120
Fenamiphos	96.6		P	80 - 120
Fenbuconazole	101		P	80 - 120
Fipronil	97.4		P	80 - 120
Fipronil Desulfinyl	98.7		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fluazifop-P-butyl	97.0		P	80 - 120
Fludioxonil	105		P	80 - 120
Flumioxazin	95.3		P	80 - 120
Flutolanil	99.6		P	80 - 120
Fluxapyroxad	98.5		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	104		P	80 - 120
Imazalil	93.4		P	80 - 120
Iprodione	103		P	80 - 120
Loratadine	107		P	80 - 120
Malathion	95.7		P	80 - 120
Metalaxyl	99.4		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	98.6		P	80 - 120
Molinate	100		P	80 - 120
Myclobutanil	100		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A109776
Included Lab Sample IDs: 2297021

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naled	110		P	80 - 120
Napropamide	108		P	80 - 120
Norflurazon	100		P	80 - 120
Oxyfluorfen	97.2		P	80 - 120
Parathion Ethyl	99.6		P	80 - 120
Parathion Methyl	107		P	80 - 120
Pendimethalin	106		P	80 - 120
Phenytoin	103		P	80 - 120
Phorate	98.8		P	80 - 120
Prodiamine	88.4		P	80 - 120
Prometon	99.9		P	80 - 120
Prometryn	99.0		P	80 - 120
Pronamide	93.9		P	80 - 120
Propanil	109		P	80 - 120
Propargite	96.7		P	80 - 120
Propiconazole	103		P	80 - 120
Pyraflufen Ethyl	101		P	80 - 120
Pyridaben	99.1		P	80 - 120
Pyriproxyfen	100		P	80 - 120
Simazine	106		P	80 - 120
Stirophos	99.4		P	80 - 120
Sulfentrazone	98.7		P	80 - 120
Tebuconazole	97.2		P	80 - 120
Terbufos	101		P	80 - 120
Terbuthylazine	95.3		P	80 - 120
Thiobencarb	99.0		P	80 - 120
Triadimefon	93.3		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A109807
Included Lab Sample IDs: 2297014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	109	108	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A109841
Included Lab Sample IDs: 2297021

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dimethomorph	104		P	80 - 120
Oxadiazon	96.9		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						8.64	
EPA 200.7 Rev. 4.4	Barium	105	102	99.9	105			1.62
	Calcium	106	101	103				1.06
	Iron	112	109	109	112			0.303
	Magnesium	110	105	105	105			0.124
	Manganese	107	103	102	105			1.06
	Potassium	105	103	102	109			0.330
	Sodium	106	105	104	106			0.290
	Zinc	106	100	99.8	101			0.159
EPA 200.8 Rev. 5.4	Aluminum	101	99.0	98.3	101			0.724
	Antimony	98.8	101	100	101			0.877
	Arsenic	102	99.9	99.1	100			0.688
	Beryllium	99.6	99.0	98.5	101			0.528
	Boron	97.5	99.8	100	102			0.635
	Cadmium	99.2	102	101	102			1.51
	Chromium	100	101	100	103			0.320
	Copper	103	97.7	97.7	99.7			0.0154
	Lead	96.3	94.7	96.0	97.3			1.34
	Nickel	104	97.7	97.7	98.3			0.0112
	Selenium	101	99.5	98.8	101			0.640
	Silver	101	99.3	99.5	101			0.272
	Thallium	107	108	108	110			0.629
EPA 300.0 Rev. 2.1	Chloride	99.7	102	98.7			0.0106	
	Sulfate	99.6	100	97.2			0.386	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	94.6	94.6				0.0
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5						3.37
EPA 353.2 Rev. 2.0	NO2NO3-N	102	98.8	98.8				0.0
EPA 365.1 Rev. 2.0	Total-P	109	110	113				2.26
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.8	100	98.6				1.41
EPA 8270E	Acetochlor	108	108	105				2.70
	Alachlor	99.3	92.7	96.9				4.34
	Ametryn	105	106	108				2.45
	Atrazine	98.4	92.9	93.2				0.365
	Atrazine Desethyl	71.5	69.8	69.6				0.281
	Azinphos Methyl	107	106	110				4.07
	Azoxystrobin	113	107	102				4.81
	Bromacil	93.1	82.8	90.1				8.46
	Butylate	60.5	59.5	72.2				19.2
	Caffeine	76.1	75.2	79.1				5.04
	Carbophenothion	92.1	96.6	92.7				4.13
	Carfentrazone Ethyl	106	110	109				0.322
	Chlorfenapyr	84.8	86.8	84.7				2.45
	Chlorpyrifos Ethyl	86.2	82.8	89.3				7.49
	Chlorpyrifos Methyl	96.7	90.4	95.0				5.00
	Coumaphos	77.6	94.3	97.1				2.96
	Cyanazine	133	124	140				11.4
	Cyprodinil	112	109	107				2.36
	Demeton	125	110	123				10.9
	Diazinon	110	113	108				4.30
	Difenoconazole	76.4	129	110				15.8
	Dimethenamid	84.1	82.1	79.9				2.71
	Dimethomorph	198	149	158				5.57
	Disulfoton	98.3	94.2	93.1				1.16
	Dithiopyr	98.5	104	98.6				5.13

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	EPTC	60.8	60.1	75.3			22.4
	Ethion	71.6	64.5	63.9			0.875
	Ethoprop	87.3	88.2	94.5			6.92
	Etridiazole	72.7	74.2	83.6			12.0
	Fenamiphos	90.2	84.2	91.1			7.86
	Fenbuconazole	80.9	104	103			0.859
	Fipronil	105	110	107			3.21
	Fipronil Desulfinyl	110	110	108			1.64
	Fipronil Sulfide	90.2	87.0	91.9			5.52
	Fipronil Sulfone	81.0	74.4	78.9			5.82
	Fluazifop-P-butyl	92.9	101	99.5			1.11
	Fludioxonil	98.4	93.6	96.1			2.64
	Flumioxazin	87.0	142	130			8.35
	Flutolanil	91.1	90.1	93.3			3.53
	Fluxapyroxad	82.6	82.0	86.0			4.79
	Fonofos	89.9	86.3	98.5			13.1
	Hexazinone	94.3	86.2	90.2			4.52
	Imazalil	108	100	85.0			16.3
	Iprodione	97.1	101	97.9			2.75
	Loratadine	180	134	146			8.33
	Malathion	88.3	85.9	88.1			2.61
	Metalaxyl	94.5	93.4	92.0			1.50
	Metolachlor	90.3	92.6	91.2			1.57
	Metribuzin	107	91.9	102			10.8
	Mevinphos	82.8	79.1	84.9			6.96
	Molinate	72.8	71.1	82.2			14.5
	Myclobutanil	96.0	95.3	93.7			1.75
	Naled	86.4	87.1	98.2			11.9
	Napropamide	87.3	90.4	92.9			2.78
	Norflurazon	89.0	86.7	87.4			0.799
	Oxadiazon	77.3	85.2	82.1			3.77
	Oxyfluorfen	114	120	115			3.81
	Parathion Ethyl	100	91.0	95.1			4.44
	Parathion Methyl	118	106	109			2.94
	Pendimethalin	113	95.0	117			20.7
	Phenytoin	34.9	41.9	39.2			6.64
	Phorate	74.6	81.9	84.9			3.67
	Prodiamine	50.4	47.7	53.8			12.0
	Prometon	98.3	94.1	88.7			5.96
	Prometryn	99.3	97.8	96.1			1.67
	Pronamide	103	96.3	92.7			3.88
	Propanil	120	116	121			4.32
	Propargite	83.4	89.4	81.4			9.40
	Propiconazole	94.7	97.9	97.7			0.228
	Pyraflufen Ethyl	97.9	103	102			1.02
	Pyridaben	84.0	94.9	101			6.42
	Pyriproxyfen	81.3	89.2	90.9			1.87
	Simazine	95.7	85.9	87.7			2.09
	Stirophos	75.1	68.9	72.6			5.26
	Sulfentrazone	63.6	77.8	80.6			3.47
	Tebuconazole	66.0	68.2	63.3			7.38
	Terbufos	116	109	115			4.74
	Terbuthylazine	90.4	90.6	85.0			6.38
	Thiobencarb	97.9	102	100			1.81

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Triadimefon	95.7	99.0	98.0			1.01
EPA 8321B	2,4-D	84.0	87.0	86.6			0.404
	2,4,5-T	71.6	75.7	74.6			1.49
	Acesulfame K	108	29.8	29.2			2.21
	Acetaminophen	93.1	103	117			12.9
	Acetamiprid	83.1	95.4	102			6.82
	Afidopyropen	71.9	81.0	86.5			6.59
	AMPA	104	70.6	71.8			1.38
	Bentazon	108	88.9	95.1			4.97
	Benzovindiflupyr	85.7	77.2	85.2			9.79
	Carbamazepine	91.2	93.1	96.9			3.98
	Clothianidin	99.4	104	110			5.36
	Dinotefuran	81.8	84.5	87.7			3.66
	Diuron	95.9	92.8	81.3			13.3
	Endothall	101	58.4	60.4			3.39
	Fenuron	112	90.4	95.2			5.09
	Fluridone	96.4	97.4	97.1			0.226
	Glufosinate	104	95.1	93.1			2.17
	Glyphosate	97.3	68.1	72.9			3.62
	Hydrocodone	91.4	89.7	97.1			8.00
	Ibuprofen	78.9	77.2	71.3			7.99
	Imazapyr	97.2	103	108			3.60
	Imidacloprid	97.6	111	123			9.47
	Linuron	96.6	94.7	71.8			27.5
	Mandestrobin	91.3	84.4	89.1			5.36
	MCPP	87.1	80.8	89.1			9.88
	Naproxen	76.7	60.2	71.6			17.3
	Primidone	95.2	105	79.3			27.9
	Pyraclostrobin	90.3	85.9	83.5			2.85
	Sucralose	97.0	113	112			0.202
	Thiamethoxam	93.2	110	119			7.46
	Tolfenpyrad	46.7	44.8	44.5			0.672
	Triclopyr	70.0	72.0	72.7			0.889
SM 2120 B-2011	Color (true)	101				0.727	
SM 2320 B-2011	Total Alkalinity	99.5				1.65	
SM 2540 C-2011	TDS					0.858	
SM 4500 F-C-2011	Fluoride	98.9	99.1	99.1			0.0
SM 5310 B-2011	Organic Carbon	95.8	96.1	94.3			1.43

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2297013
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2297020
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2297020
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2297013
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2297013
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2297014
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2297014
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2297014
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2297014

Reference Method Descriptions

Method	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2297015
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2297021
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2297019
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2297013
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2297013
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2297020
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2297013
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2297013
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2297013
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2297014

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	12/29/2021			12/29/2021 16:49	Khloe J Berg	2297013
EPA 200.7 Rev. 4.4	12/29/2021	01/05/2022 10:20	Vijayalakshmi Reddy	01/06/2022 21:31	Josef B Mick	2297020
EPA 200.8 Rev. 5.4	12/29/2021	01/05/2022 10:20	Vijayalakshmi Reddy	01/06/2022 15:31	Alexander Thompson	2297020
	12/29/2021	01/05/2022 10:20	Vijayalakshmi Reddy	01/07/2022 12:11	Alexander Thompson	2297020
EPA 300.0 Rev. 2.1	12/29/2021			01/05/2022 15:28	Roberta Tatti	2297013
EPA 350.1 Rev. 2.0	12/29/2021			01/10/2022 11:07	Ping Hua	2297014
EPA 351.2 Rev. 2.0	12/29/2021	01/06/2022 11:19	Samantha L Bates	01/07/2022 12:52	Alexandra J Mattheus	2297014
EPA 353.2 Rev. 2.0	12/29/2021			01/07/2022 11:38	Beverly Y. Sanders	2297014
EPA 365.1 Rev. 2.0	12/29/2021	01/05/2022 15:30	Simonne.V. Calhoun	01/07/2022 17:14	Shengyu Ding	2297014
EPA 365.1 Rev. 2.0 dissolved	12/29/2021			12/29/2021 14:22	James L Waggerby	2297015
EPA 8270E	12/29/2021	01/04/2022 08:00	Fe-Val Siddell	01/05/2022 16:21	Michael Poppell	2297021
	12/29/2021	01/04/2022 08:00	Fe-Val Siddell	01/12/2022 17:04	Michael Poppell	2297021
	12/29/2021	01/04/2022 08:00	Fe-Val Siddell	01/12/2022 17:29	Michael Poppell	2297021
EPA 8321B	12/29/2021	01/03/2022 11:00	Juyoung Kim	01/04/2022 02:17	Juyoung Kim	2297019
	12/29/2021	01/03/2022 11:00	Juyoung Kim	01/05/2022 10:45	Juyoung Kim	2297019
	12/29/2021	12/29/2021 13:00	Mohammad Ghaffari	12/29/2021 15:26	Mohammad Ghaffari	2297019
	12/29/2021	12/29/2021 13:00	Mohammad Ghaffari	12/30/2021 15:37	Mohammad Ghaffari	2297019
SM 2120 B-2011	12/29/2021			12/29/2021 19:01	Sarah A Nixon	2297013
SM 2320 B-2011	12/29/2021			01/04/2022 23:07	Dale L. Simmons	2297013
SM 2340B	12/29/2021			01/06/2022 21:31	Josef B Mick	2297020
SM 2540 C-2011	12/29/2021			01/03/2022 11:02	Yijie Li	2297013
SM 2540 D-2011	12/29/2021			01/03/2022 11:02	Yijie Li	2297013
SM 4500 F-C-2011	12/29/2021			01/04/2022 23:07	Dale L. Simmons	2297013
SM 5310 B-2011	12/29/2021			01/08/2022 03:37	Nathaniel J Jones	2297014