

Chemical Analysis Report

CEN-DIST-2022-05-17-02

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

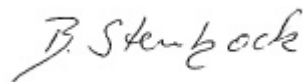
Event Description: **Lake Dias LVI**
Request ID: **RQ-2022-05-16-18**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

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

Date Certified: 10-JUN-2022 14:42



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: Lake Dias @ Center

Collection Date/Time: 05/16/2022 12:01

Field ID: G2CE0235

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327391	DEP SOP: NU-094-1	Color (true)**	87		PCU	P413973	
	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P413978	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P414106	
		Sulfate	4.7		mg SO4/L	P414110	
	SM 2320 B-2011	Total Alkalinity	20		mg CaCO3/L	P414067	
	SM 2540 C-2011	TDS	89		mg/L	P414398	
	SM 2540 D-2011	TSS	3	I	mg/L	P414313	
	SM 4500-F- C-2011	Fluoride	0.041	I	mg F/L	P414070	
2327392	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P414363	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P414240	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P414276	
	EPA 365.1 Rev. 2.0	Total-P	0.029		mg P/L	P414058	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P414079	
2327393	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P414002	
2327395	EPA 8321B	Acesulfame K	0.10	U	ug/L	P414088	
		2,4-D	0.0073	I	ug/L	P414017	
		AMPA	0.10	U	ug/L	P414088	
		2,4,5-T	0.0040	U	ug/L	P414017	
		Acetaminophen	0.0080	U	ug/L	P414017	
		Endothall	0.25	U	ug/L	P414088	
		Acetamiprid	0.0020	U	ug/L	P414017	
		Glufosinate	0.10	U	ug/L	P414088	
		Glyphosate	0.10	U	ug/L	P414088	
		Afidopyropen	0.0020	U	ug/L	P414017	
		Sucralose	0.017	I	ug/L	P414088	
		Bentazon	0.0071		ug/L	P414017	
		Benzovindiflupyr	0.0020	U	ug/L	P414017	
		Carbamazepine	8.0E-04	U	ug/L	P414017	
		Clothianidin	0.0020	U	ug/L	P414017	
		Dinotefuran	0.0020	U	ug/L	P414017	
		Diuron	0.0020	U	ug/L	P414017	
		Fenuron	0.032	U	ug/L	P414017	
		Fluridone	8.0E-04	U	ug/L	P414017	
		Imazapyr	0.012	I	ug/L	P414017	
		Hydrocodone	0.0020	U	ug/L	P414017	
		Ibuprofen	0.020	U	ug/L	P414017	
		Imidacloprid	0.0020	U	ug/L	P414017	
		Linuron	0.0040	U	ug/L	P414017	
		Mandestrobin	0.0020	U	ug/L	P414017	
		MCP	0.0040	U	ug/L	P414017	
		Naproxen	0.0080	U	ug/L	P414017	
		Primidone	0.0040	U	ug/L	P414017	
		Pyraclostrobin	0.0020	U	ug/L	P414017	

MS

Field ID: G2CE0235

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327395	EPA 8321B	Silvex	0.0040	U	ug/L	P414017	
		Thiamethoxam	0.0020	U	ug/L	P414017	
		Tolfenpyrad	0.0020	U	ug/L	P414017	
		Triclopyr	0.0040	U	ug/L	P414017	
2327396	EPA 200.7 Rev. 4.4	Calcium	9.06		mg/L	P413983	
		Iron	100	I	ug/L	P413983	
		Magnesium	2.59		mg/L	P413983	
		Potassium	2.3		mg/L	P413983	
		Sodium	10.6		mg/L	P413983	
		Strontium	38.7		ug/L	P413983	
		Tin	3.0	U	ug/L	P413983	
		Titanium	0.75	U	ug/L	P413983	
		Vanadium	2.0	U	ug/L	P413983	
		Zinc	5.0	U	ug/L	P413983	
	EPA 200.8 Rev. 5.4	Aluminum	22		ug/L	P413983	
		Antimony	0.050	U	ug/L	P413983	
		Arsenic	0.55		ug/L	P413983	
		Barium	5.50		ug/L	P413983	
		Beryllium	0.010	U	ug/L	P413983	
		Boron**	29.0		ug/L	P413983	
		Cadmium	0.020	U	ug/L	P413983	
		Chromium	0.40	U	ug/L	P413983	
		Cobalt	0.020	U	ug/L	P413983	
		Copper	0.40	U	ug/L	P413983	
		Lead	0.20	U	ug/L	P413983	
		Manganese	10.1		ug/L	P413983	
		Molybdenum	0.24	I	ug/L	P413983	
		Nickel	0.50	U	ug/L	P413983	
		Selenium	0.20	U	ug/L	P413983	
		Silver	0.010	U	ug/L	P413983	
		Thallium	0.10	U	ug/L	P413983	
		Hardness	33.3		mg/L	P413983	
2327397	SM 2340 B-2011						
	EPA 8270E	Oxybenzone**	10	U	ng/L	P414133	
		Acetochlor	0.26	U	ng/L	P414133	
		Octinoxate**	21	U	ng/L	P414133	
		Alachlor	0.26	U	ng/L	P414133	
		Avobenzone**	100	U	ng/L	P414133	
		Ametryn	0.63	U	ng/L	P414133	
		Atrazine	3.2		ng/L	P414133	
		Atrazine Desethyl	2.2	I	ng/L	P414133	
		Azinphos Methyl	2.1	U	ng/L	P414133	
		Azoxystrobin**	0.52	U	ng/L	P414133	
		Bromacil	0.52	U	ng/L	P414133	
		Butylate	0.42	U	ng/L	P414133	
		Caffeine**	7.8	U	ng/L	P414133	

Field ID: G2CE0235

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327397	EPA 8270E	Carbophenothion	0.21	U	ng/L	P414133	
		Carfentrazone Ethyl**	0.10	U	ng/L	P414133	
		Chlorfenapyr**	0.18	U	ng/L	P414133	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P414133	
		Chlorpyrifos Methyl	0.052	U	ng/L	P414133	
		Coumaphos**	0.52	U	ng/L	P414133	
		Cyanazine	3.4	U	ng/L	P414133	
		Cyprodinil**	0.10	U	ng/L	P414133	
		Demeton	1.6	U	ng/L	P414133	
		Diazinon	0.13	U	ng/L	P414133	
		Difenoconazole**	0.63	U	ng/L	P414133	
		Dimethenamid**	0.10	U	ng/L	P414133	
		Dimethomorph**	0.18	U	ng/L	P414133	
		Disulfoton	0.52	U	ng/L	P414133	
		Dithiopyr**	0.24	I	ng/L	P414133	
		EPTC	1.3	U	ng/L	P414133	
		Ethion	0.16	U	ng/L	P414133	
		Ethoprop	0.10	U	ng/L	P414133	
		Etridiazole**	0.16	U	ng/L	P414133	
		Fenamiphos	0.52	U	ng/L	P414133	
		Fenbuconazole**	0.13	U	ng/L	P414133	
		Fipronil	0.26	U	ng/L	P414133	
		Fipronil Desulfinyl**	0.13	UJ	ng/L	P414133	CCV
		Fipronil Sulfide	0.16	U	ng/L	P414133	
		Fipronil Sulfone	0.16	U	ng/L	P414133	
		Fluazifop-P-butyl**	0.10	U	ng/L	P414133	
		Fludioxonil**	0.13	U	ng/L	P414133	
		Flumioxazin**	1.8	U	ng/L	P414133	
		Flutolanil**	0.10	U	ng/L	P414133	
		Fluxapyroxad**	0.15	I	ng/L	P414133	
		Fonofos	0.21	U	ng/L	P414133	
		Hexazinone	0.52	U	ng/L	P414133	
		Imazalil**	0.78	U	ng/L	P414133	
		Iprodione**	0.63	U	ng/L	P414133	
		Loratadine**	0.10	U	ng/L	P414133	
		Malathion	0.37	U	ng/L	P414133	
		Metalaxyl	0.78	U	ng/L	P414133	
		Metolachlor	0.37	U	ng/L	P414133	
		Metribuzin	2.6	U	ng/L	P414133	
		Mevinphos	1.1	U	ng/L	P414133	
		Molinate	0.31	U	ng/L	P414133	
		Myclobutanil**	0.26	U	ng/L	P414133	
		Naled**	1.6	U	ng/L	P414133	
		Napropamide**	0.42	U	ng/L	P414133	
		Norflurazon	0.52	U	ng/L	P414133	

Field ID: G2CE0235

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327397	EPA 8270E	Oxadiazon	0.50	I	ng/L	P414133	
		Oxyfluorfen**	0.16	U	ng/L	P414133	
		Parathion Ethyl	0.26	U	ng/L	P414133	
		Parathion Methyl	0.57	U	ng/L	P414133	
		Pendimethalin	1.0	U	ng/L	P414133	
		Phenytol**	3.7	U	ng/L	P414133	
		Phorate	0.55	U	ng/L	P414133	
		Prodiamine**	0.18	U	ng/L	P414133	
		Prometon	0.94	U	ng/L	P414133	
		Prometryn	0.21	U	ng/L	P414133	
		Pronamide**	0.16	U	ng/L	P414133	
		Propanil**	0.13	U	ng/L	P414133	
		Propargite**	1.6	U	ng/L	P414133	
		Propiconazole**	0.52	U	ng/L	P414133	
		Pyraflufen Ethyl**	0.26	U	ng/L	P414133	
		Pyridaben**	0.47	U	ng/L	P414133	
		Pyriproxyfen**	0.13	U	ng/L	P414133	
		Simazine	0.52	U	ng/L	P414133	
		Stirophos**	0.13	U	ng/L	P414133	
		Sulfentrazone**	0.52	U	ng/L	P414133	
		Tebuconazole**	0.52	U	ng/L	P414133	
		Terbufos	0.10	U	ng/L	P414133	
		Terbutylazine	0.44	U	ng/L	P414133	
		Thiobencarb**	0.63	U	ng/L	P414133	
		Triadimefon**	0.26	U	ng/L	P414133	

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

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P413973

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413978

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P413983

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P413983

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	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
Manganese	0.10	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: P414106

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: P414110

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414276

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P414002

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

Reference Method: EPA 8270E
Batch ID: P414133

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
Avobenzone	100	U	ng/L
Avobenzone	100	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P414133

Component	Result	Code	Units
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	0.20	U	ng/L
Carbophenothion	0.20	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P414133

Component	Result	Code	Units
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
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
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P414133

Component	Result	Code	Units
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	0.18	U	ng/L
Prodiamine	0.18	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
Terbutylazine	0.42	U	ng/L
Terbutylazine	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: P414017

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P414017

Component	Result	Code	Units
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	0.032	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: EPA 8321B

Batch ID: P414088

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P414067

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

Reference Method: SM 2540 C-2011

Batch ID: P414398

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P414313

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P414079

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P413973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.5		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413978

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	97.4		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P413983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	108		P	85 - 115
Sodium	108		P	85 - 115
Strontium	106		P	85 - 115
Tin	110		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P413983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	98.8		P	85 - 115
Barium	103		P	85 - 115
Beryllium	97.3		P	85 - 115
Boron	105		P	85 - 115
Cadmium	99.6		P	85 - 115
Chromium	98.8		P	85 - 115
Cobalt	97.2		P	85 - 115
Copper	95.8		P	85 - 115
Lead	101		P	85 - 115
Manganese	99.5		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	96.3		P	85 - 115
Selenium	99.1		P	85 - 115
Silver	99.6		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414106

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414110

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414276

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P414002

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

Reference Method: EPA 8270E
Batch ID: P414133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.6		P	70 - 121
Alachlor	86.4		P	68 - 119
Ametryn	114		P	64 - 139
Atrazine	91.8		P	76 - 120
Atrazine Desethyl	61.7		P	44 - 126
Avobenzone	127		P	76 - 212
Azinphos Methyl	152		P	43 - 192
Azoxystrobin	113		P	36 - 224
Bromacil	76.7		P	52 - 121
Butylate	43.8		P	28 - 91.0
Caffeine	69.2		P	50 - 134
Carbophenothion	93.9		P	56 - 129
Carfentrazone Ethyl	111		P	60 - 141
Chlorfenapyr	78.2		P	56 - 115
Chlorpyrifos Ethyl	88.5		P	60 - 118
Chlorpyrifos Methyl	85.5		P	68 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P414133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Coumaphos	148		P	18 - 250
Cyanazine	126		P	61 - 250
Cyprodinil	110		P	55 - 145
Demeton	83.0		P	30 - 159
Diazinon	99.5		P	70 - 123
Difenoconazole	57.4		P	49 - 204
Dimethenamid	79.8		P	64 - 115
Dimethomorph	95.5		P	12 - 219
Disulfoton	84.5		P	44 - 125
Dithiopyr	90.3		P	64 - 115
EPTC	55.6		P	28 - 86.0
Ethion	83.0		P	33 - 125
Ethoprop	88.1		P	64 - 116
Etridiazole	64.2		P	34 - 91.0
Fenamiphos	97.0		P	12 - 127
Fenbuconazole	146		P	59 - 151
Fipronil	97.4		P	67 - 129
Fipronil Desulfinyl	106		P	65 - 127
Fipronil Sulfide	80.8		P	61 - 116
Fipronil Sulfone	91.9		P	55 - 117
Fluazifop-P-butyl	95.9		P	62 - 127
Fludioxonil	104		P	62 - 128
Flumioxazin	158		P	33 - 250
Flutolanil	93.6		P	56 - 127
Fluxapyroxad	83.7		P	45 - 128
Fonofos	82.6		P	62 - 111
Hexazinone	97.3		P	46 - 139
Imazalil	99.7		P	38 - 142
Iprodione	90.8		P	47 - 135
Loratadine	85.3		P	10 - 244
Malathion	99.5		P	61 - 139
Metalaxyl	87.8		P	10 - 119
Metolachlor	93.9		P	65 - 118
Metribuzin	87.3		P	51 - 250
Mevinphos	73.6		P	53 - 121
Molinate	67.9		P	42 - 96.0
Myclobutanil	105		P	55 - 128
Naled	72.0		P	10 - 98.0
Napropamide	81.4		P	49 - 121
Norflurazon	108		P	61 - 126
Octinoxate	138		P	30 - 159
Oxadiazon	83.3		P	59 - 116
Oxybenzone	111		P	61 - 139
Oxyfluorfen	115		P	64 - 137
Parathion Ethyl	94.1		P	70 - 112
Parathion Methyl	95.2		P	76 - 133
Pendimethalin	97.1		P	52 - 117
Phenytol	91.0		P	10 - 199
Phorate	89.4		P	48 - 121
Prodiamine	71.9		P	26 - 142
Prometon	102		P	43 - 123
Prometryn	108		P	66 - 127

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P414133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pronamide	101		P	75 - 121
Propanil	82.4		P	45 - 150
Propargite	143		P	42 - 208
Propiconazole	108		P	60 - 125
Pyraflufen Ethyl	105		P	70 - 138
Pyridaben	137		P	35 - 245
Pyriproxyfen	142		P	30 - 149
Simazine	85.0		P	72 - 125
Stirophos	84.4		P	29 - 164
Sulfentrazone	130		P	21 - 139
Tebuconazole	32.0		P	10 - 115
Terbufos	101		P	60 - 123
Terbuthylazine	85.4		P	72 - 115
Thiobencarb	85.5		P	31 - 139
Triadimefon	80.0		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P414017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.0		P	40 - 150
2,4,5-T	61.3		P	40 - 150
Acetaminophen	59.2		P	30 - 150
Acetamiprid	91.9		P	40 - 150
Afidopyropen	65.8		P	30 - 150
Bentazon	138		P	30 - 150
Benzovindiflupyr	85.8		P	40 - 150
Carbamazepine	95.5		P	40 - 150
Clothianidin	99.2		P	40 - 150
Dinotefuran	96.6		P	40 - 150
Diuron	81.8		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	71.4		P	40 - 150
Hydrocodone	92.2		P	40 - 150
Ibuprofen	70.8		P	40 - 150
Imazapyr	84.9		P	40 - 150
Imidacloprid	83.8		P	40 - 150
Linuron	68.6		P	40 - 150
Mandestrobin	75.8		P	40 - 150
MCPP	93.6		P	40 - 150
Naproxen	66.4		P	40 - 150
Primidone	90.5		P	40 - 150
Pyraclostrobin	81.1		P	40 - 150
Silvex	56.9		P	40 - 150
Thiamethoxam	97.5		P	40 - 150
Tolfenpyrad	44.6		P	30 - 150
Triclopyr	66.6		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P414088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P414088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	139		P	40 - 150
AMPA	112		P	40 - 150
Endothall	88.7		P	40 - 150
Glufosinate	102		P	40 - 150
Glyphosate	99.3		P	40 - 150
Sucralose	97.9		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P414067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.7		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P414070

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.9		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P414079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P413983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326982	Calcium	101		P	80 - 120
2326982	Iron	105	104	P/P	80 - 120
2326982	Magnesium	99.7		P	80 - 120
2326982	Potassium	104	104	P/P	80 - 120
2326982	Sodium	105	104	P/P	80 - 120
2326982	Strontium	104	103	P/P	80 - 120
2326982	Tin	106	106	P/P	80 - 120
2326982	Titanium	105	105	P/P	80 - 120
2326982	Vanadium	98.8	98.4	P/P	80 - 120
2326982	Zinc	102	102	P/P	80 - 120
2327131	Calcium	101		P	80 - 120
2327131	Iron	105		P	80 - 120
2327131	Magnesium	102		P	80 - 120
2327131	Potassium	102		P	80 - 120
2327131	Sodium	101		P	80 - 120
2327131	Strontium	104		P	80 - 120
2327131	Tin	103		P	80 - 120
2327131	Titanium	110		P	80 - 120
2327131	Vanadium	99.0		P	80 - 120
2327131	Zinc	98.2		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P413983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326982	Aluminum	98.0	96.9	P/P	80 - 120
2326982	Antimony	100	99.6	P/P	80 - 120
2326982	Arsenic	97.5	97.4	P/P	80 - 120
2326982	Barium	102	101	P/P	80 - 120
2326982	Beryllium	94.9	94.9	P/P	80 - 120
2326982	Boron	103	99.3	P/P	80 - 120
2326982	Cadmium	98.5	96.9	P/P	80 - 120
2326982	Chromium	97.0	95.6	P/P	80 - 120
2326982	Cobalt	96.4	95.7	P/P	80 - 120
2326982	Copper	94.3	93.5	P/P	80 - 120
2326982	Lead	98.9	99.4	P/P	80 - 120
2326982	Manganese	97.1	99.2	P/P	80 - 120
2326982	Molybdenum	101	101	P/P	80 - 120
2326982	Nickel	97.2	97.2	P/P	80 - 120
2326982	Selenium	97.1	97.5	P/P	80 - 120
2326982	Silver	98.3	98.6	P/P	80 - 120
2326982	Thallium	101	102	P/P	80 - 120
2327131	Aluminum	108		P	80 - 120
2327131	Antimony	101		P	80 - 120
2327131	Arsenic	97.8		P	80 - 120
2327131	Barium	102		P	80 - 120
2327131	Beryllium	97.0		P	80 - 120
2327131	Boron	104		P	80 - 120
2327131	Cadmium	99.5		P	80 - 120
2327131	Chromium	102		P	80 - 120
2327131	Cobalt	96.8		P	80 - 120
2327131	Copper	95.5		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P413983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327131	Lead	101		P	80 - 120
2327131	Molybdenum	101		P	80 - 120
2327131	Nickel	97.9		P	80 - 120
2327131	Selenium	96.7		P	80 - 120
2327131	Silver	98.1		P	80 - 120
2327131	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P414106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326976	Chloride	102		P	90 - 110
2327287	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P414110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2326976	Sulfate	99.0		P	90 - 110
2327287	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P414363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327259	Ammonia-N	95.0	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P414240

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327117	Kjeldahl Nitrogen	98.6	93.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P414276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327325	NO2NO3-N	97.4	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P414058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327392	Total-P	109	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P414002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327245	O-Phosphate-P	95.9	96.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P414133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327604	Acetochlor	103	104	P/P	65 - 124
2327604	Alachlor	91.2	91.4	P/P	61 - 121
2327604	Ametryn	126	133	P/P	52 - 216
2327604	Atrazine	95.8	94.6	P/P	68 - 133
2327604	Atrazine Desethyl	63.2	62.8	P/P	15 - 160
2327604	Avobenzone	118	121	P/P	59 - 206
2327604	Azinphos Methyl	151	147	P/P	40 - 292
2327604	Azoxystrobin	123	118	P/P	12 - 242
2327604	Bromacil	91.5	87.9	P/P	54 - 167
2327604	Butylate	49.4	45.7	P/P	14 - 94.0
2327604	Caffeine	84.9	90.6	P/P	10 - 226
2327604	Carbophenothion	98.9	102	P/P	49 - 122
2327604	Carfentrazone Ethyl	114	115	P/P	53 - 138
2327604	Chlorfenapyr	82.4	78.3	P/P	50 - 150
2327604	Chlorpyrifos Ethyl	95.1	94.0	P/P	52 - 122
2327604	Chlorpyrifos Methyl	93.1	94.8	P/P	66 - 117
2327604	Coumaphos	159	168	P/P	50 - 220
2327604	Cyanazine	115	113	P/P	43 - 245
2327604	Cyprodinil	122	119	P/P	50 - 150
2327604	Demeton	94.4	91.4	P/P	43 - 188
2327604	Diazinon	98.4	104	P/P	69 - 131
2327604	Difenoconazole	57.4	59.3	P/P	34 - 231
2327604	Dimethenamid	82.3	81.0	P/P	55 - 118
2327604	Dimethomorph	98.9	103	P/P	50 - 150
2327604	Disulfoton	90.6	89.5	P/P	38 - 141
2327604	Dithiopyr	96.1	91.2	P/P	42 - 116
2327604	EPTC	52.9	63.0	P/P	18 - 85.0
2327604	Ethion	86.4	83.2	P/P	10 - 131
2327604	Ethoprop	90.3	90.4	P/P	65 - 129
2327604	Etridiazole	63.8	70.3	P/P	50 - 150
2327604	Fenamiphos	108	110	P/P	31 - 137
2327604	Fenbuconazole	146	149	P/P	57 - 160
2327604	Fipronil	109	109	P/P	62 - 132
2327604	Fipronil Desulfinyl	108	108	P/P	57 - 131
2327604	Fipronil Sulfide	92.9	90.3	P/P	15 - 138
2327604	Fipronil Sulfone	100	106	P/P	21 - 134
2327604	Fluazifop-P-butyl	98.6	98.3	P/P	54 - 133
2327604	Fludioxonil	109	113	P/P	58 - 127
2327604	Flumioxazin	229	243	P/P	33 - 300
2327604	Flutolanil	99.6	102	P/P	42 - 130
2327604	Fluxapyroxad	79.9	77.8	P/P	23 - 141
2327604	Fonofos	89.4	83.3	P/P	58 - 119
2327604	Hexazinone	106	103	P/P	68 - 172
2327604	Imazalil	87.1	84.7	P/P	48 - 283
2327604	Iprodione	91.1	89.8	P/P	38 - 140
2327604	Loratadine	90.0	101	P/P	50 - 150
2327604	Malathion	112	111	P/P	40 - 137
2327604	Metalaxyl	89.1	91.8	P/P	21 - 129
2327604	Metolachlor	96.7	93.5	P/P	55 - 122
2327604	Metribuzin	90.1	101	P/P	38 - 187
2327604	Mevinphos	79.4	79.4	P/P	54 - 134
2327604	Molinate	66.3	70.5	P/P	41 - 97.0

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P414133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327604	Myclobutanil	114	115	P/P	56 - 125
2327604	Naled	90.9	101	P/P	10 - 108
2327604	Napropamide	83.8	86.3	P/P	50 - 150
2327604	Norflurazon	110	112	P/P	32 - 122
2327604	Octinoxate	87.1	89.9	P/P	25 - 150
2327604	Oxadiazon	87.5	87.6	P/P	40 - 119
2327604	Oxybenzone	93.1	94.3	P/P	59 - 147
2327604	Oxyfluorfen	118	121	P/P	61 - 153
2327604	Parathion Ethyl	94.3	96.6	P/P	59 - 130
2327604	Parathion Methyl	104	107	P/P	65 - 155
2327604	Pendimethalin	107	109	P/P	49 - 138
2327604	Phenytoin	84.0	82.9	P/P	50 - 200
2327604	Phorate	81.6	77.8	P/P	54 - 161
2327604	Prodiamine	96.1	83.6	P/P	33 - 161
2327604	Prometon	120	104	P/P	48 - 140
2327604	Prometryn	116	118	P/P	55 - 134
2327604	Pronamide	106	108	P/P	66 - 137
2327604	Propanil	85.3	85.8	P/P	50 - 150
2327604	Propargite	145	148	P/P	50 - 200
2327604	Propiconazole	117	118	P/P	36 - 150
2327604	Pyraflufen Ethyl	112	118	P/P	50 - 150
2327604	Pyridaben	153	156	P/P	50 - 200
2327604	Pyriproxyfen	138	138	P/P	10 - 165
2327604	Simazine	96.8	94.7	P/P	57 - 145
2327604	Stirophos	94.2	91.6	P/P	50 - 150
2327604	Sulfentrazone	87.4	84.3	P/P	34 - 140
2327604	Tebuconazole	123	122	P/P	10 - 127
2327604	Terbufos	108	108	P/P	59 - 138
2327604	Terbuthylazine	90.2	89.6	P/P	68 - 119
2327604	Thiobencarb	87.3	87.0	P/P	50 - 150
2327604	Triadimefon	87.5	84.0	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P414017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327564	2,4-D	80.9	72.4	P/P	40 - 150
2327564	2,4,5-T	69.9	60.1	P/P	40 - 150
2327564	Acetaminophen	65.0	62.9	P/P	30 - 150
2327564	Acetamiprid	90.5	88.3	P/P	40 - 150
2327564	Afidopyropen	61.9	58.4	P/P	30 - 150
2327564	Bentazon	176	143	F/P	30 - 150
2327564	Benzovindiflupyr	100	87.0	P/P	40 - 150
2327564	Carbamazepine	112	101	P/P	40 - 150
2327564	Clothianidin	94.1	85.7	P/P	40 - 150
2327564	Dinotefuran	114	102	P/P	40 - 150
2327564	Diuron	97.3	88.1	P/P	40 - 150
2327564	Fenuron	112	98.0	P/P	40 - 150
2327564	Fluridone	83.4	75.6	P/P	40 - 150
2327564	Hydrocodone	108	98.8	P/P	40 - 150
2327564	Ibuprofen	69.7	62.9	P/P	40 - 150
2327564	Imazapyr	94.5	82.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P414017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327564	Imidacloprid	110	96.4	P/P	40 - 150
2327564	Linuron	71.1	67.4	P/P	40 - 150
2327564	Mandestrobin	77.9	73.4	P/P	40 - 150
2327564	MCCP	102	82.2	P/P	40 - 150
2327564	Naproxen	74.7	59.2	P/P	40 - 150
2327564	Primidone	85.3	80.9	P/P	40 - 150
2327564	Pyraclostrobin	92.4	84.4	P/P	40 - 150
2327564	Silvex	65.8	56.4	P/P	40 - 150
2327564	Thiamethoxam	110	101	P/P	40 - 150
2327564	Tolfenpyrad	54.2	47.1	P/P	30 - 150
2327564	Triclopyr	75.3	62.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P414088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327275	Acesulfame K	112	118	P/P	40 - 150
2327275	Endothall	89.4	96.5	P/P	40 - 150
2327275	Glufosinate	99.2	95.7	P/P	40 - 150
2327275	Sucralose	96.9	102	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327257	Fluoride	97.5	96.7	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327376	Organic Carbon	94.9	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P413973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327320	Color (true)	0.914	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327385	Turbidity	0.966	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P413983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326982	Calcium	2.17	Spike	P	0 - 20
2326982	Iron	0.848	Spike	P	0 - 20
2326982	Magnesium	2.14	Spike	P	0 - 20
2326982	Potassium	0.501	Spike	P	0 - 20
2326982	Sodium	0.875	Spike	P	0 - 20
2326982	Strontium	0.835	Spike	P	0 - 20
2326982	Tin	0.549	Spike	P	0 - 20
2326982	Titanium	0.218	Spike	P	0 - 20
2326982	Vanadium	0.339	Spike	P	0 - 20
2326982	Zinc	0.0937	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P413983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326982	Aluminum	1.08	Spike	P	0 - 20
2326982	Antimony	0.481	Spike	P	0 - 20
2326982	Arsenic	0.147	Spike	P	0 - 20
2326982	Barium	0.378	Spike	P	0 - 20
2326982	Beryllium	0.0651	Spike	P	0 - 20
2326982	Boron	3.40	Spike	P	0 - 20
2326982	Cadmium	1.71	Spike	P	0 - 20
2326982	Chromium	1.17	Spike	P	0 - 20
2326982	Cobalt	0.719	Spike	P	0 - 20
2326982	Copper	0.890	Spike	P	0 - 20
2326982	Lead	0.486	Spike	P	0 - 20
2326982	Manganese	1.69	Spike	P	0 - 20
2326982	Molybdenum	0.211	Spike	P	0 - 20
2326982	Nickel	0.0212	Spike	P	0 - 20
2326982	Selenium	0.394	Spike	P	0 - 20
2326982	Silver	0.338	Spike	P	0 - 20
2326982	Thallium	1.23	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326976	Chloride	2.95	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2326976	Sulfate	1.71	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327259	Ammonia-N	0.856	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327117	Kjeldahl Nitrogen	4.20	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327325	NO2NO3-N	1.61	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327392	Total-P	0.807	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P414002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327245	O-Phosphate-P	0.577	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P414133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327604	Acetochlor	1.55	Spike	P	0 - 27
2327604	Alachlor	0.235	Spike	P	0 - 27

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P414133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327604	Ametryn	5.12	Spike	P	0 - 34
2327604	Atrazine	0.740	Spike	P	0 - 41
2327604	Atrazine Desethyl	0.674	Spike	P	0 - 38
2327604	Avobenzone	2.20	Spike	P	0 - 30
2327604	Azinphos Methyl	2.19	Spike	P	0 - 62
2327604	Azoxystrobin	4.28	Spike	P	0 - 32
2327604	Bromacil	4.03	Spike	P	0 - 30
2327604	Butylate	7.87	Spike	P	0 - 59
2327604	Caffeine	6.50	Spike	P	0 - 60
2327604	Carbophenothion	3.13	Spike	P	0 - 25
2327604	Carfentrazone Ethyl	0.533	Spike	P	0 - 26
2327604	Chlorfenapyr	5.07	Spike	P	0 - 30
2327604	Chlorpyrifos Ethyl	1.20	Spike	P	0 - 27
2327604	Chlorpyrifos Methyl	1.81	Spike	P	0 - 26
2327604	Coumaphos	5.31	Spike	P	0 - 30
2327604	Cyanazine	2.30	Spike	P	0 - 58
2327604	Cyprodinil	2.05	Spike	P	0 - 30
2327604	Demeton	3.20	Spike	P	0 - 25
2327604	Diazinon	5.40	Spike	P	0 - 29
2327604	Difenoconazole	3.26	Spike	P	0 - 25
2327604	Dimethenamid	1.45	Spike	P	0 - 30
2327604	Dimethomorph	3.59	Spike	P	0 - 30
2327604	Disulfoton	1.20	Spike	P	0 - 33
2327604	Dithiopyr	5.20	Spike	P	0 - 22
2327604	EPTC	17.3	Spike	P	0 - 38
2327604	Ethion	3.76	Spike	P	0 - 79
2327604	Ethoprop	0.0581	Spike	P	0 - 23
2327604	Etridiazole	9.77	Spike	P	0 - 30
2327604	Fenamiphos	1.77	Spike	P	0 - 58
2327604	Fenbuconazole	1.67	Spike	P	0 - 37
2327604	Fipronil	0.303	Spike	P	0 - 33
2327604	Fipronil Desulfinyl	0.263	Spike	P	0 - 26
2327604	Fipronil Sulfide	2.77	Spike	P	0 - 37
2327604	Fipronil Sulfone	5.34	Spike	P	0 - 50
2327604	Fluazifop-P-butyl	0.326	Spike	P	0 - 24
2327604	Fludioxonil	3.19	Spike	P	0 - 26
2327604	Flumioxazin	5.90	Spike	P	0 - 37
2327604	Flutolanil	2.68	Spike	P	0 - 26
2327604	Fluxapyroxad	2.61	Spike	P	0 - 34
2327604	Fonofos	7.01	Spike	P	0 - 27
2327604	Hexazinone	2.05	Spike	P	0 - 36
2327604	Imazalil	2.80	Spike	P	0 - 65
2327604	Iprodione	1.42	Spike	P	0 - 33
2327604	Loratadine	11.1	Spike	P	0 - 30
2327604	Malathion	1.07	Spike	P	0 - 44
2327604	Metalaxyl	3.00	Spike	P	0 - 38
2327604	Metolachlor	2.48	Spike	P	0 - 36
2327604	Metribuzin	11.0	Spike	P	0 - 63
2327604	Mevinphos	0.102	Spike	P	0 - 26
2327604	Molinate	6.10	Spike	P	0 - 40
2327604	Myclobutanil	1.02	Spike	P	0 - 21

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P414133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327604	Naled	10.1	Spike	P	0 - 26
2327604	Napropamide	2.94	Spike	P	0 - 30
2327604	Norflurazon	1.89	Spike	P	0 - 24
2327604	Octinoxate	2.48	Spike	P	0 - 30
2327604	Oxadiazon	0.149	Spike	P	0 - 27
2327604	Oxybenzone	1.27	Spike	P	0 - 30
2327604	Oxyfluorfen	2.14	Spike	P	0 - 24
2327604	Parathion Ethyl	2.39	Spike	P	0 - 28
2327604	Parathion Methyl	3.34	Spike	P	0 - 27
2327604	Pendimethalin	1.30	Spike	P	0 - 31
2327604	Phenytoin	1.35	Spike	P	0 - 30
2327604	Phorate	4.85	Spike	P	0 - 27
2327604	Prodiamine	14.0	Spike	P	0 - 52
2327604	Prometon	14.9	Spike	P	0 - 31
2327604	Prometryn	0.973	Spike	P	0 - 28
2327604	Pronamide	1.62	Spike	P	0 - 26
2327604	Propanil	0.558	Spike	P	0 - 30
2327604	Propargite	1.52	Spike	P	0 - 30
2327604	Propiconazole	1.09	Spike	P	0 - 31
2327604	Pyraflufen Ethyl	5.49	Spike	P	0 - 30
2327604	Pyridaben	1.98	Spike	P	0 - 30
2327604	Pyriproxyfen	0.188	Spike	P	0 - 50
2327604	Simazine	2.21	Spike	P	0 - 29
2327604	Stiropfos	2.80	Spike	P	0 - 30
2327604	Sulfentrazone	3.57	Spike	P	0 - 33
2327604	Tebuconazole	0.547	Spike	P	0 - 44
2327604	Terbufos	0.663	Spike	P	0 - 29
2327604	Terbuthylazine	0.707	Spike	P	0 - 27
2327604	Thiobencarb	0.336	Spike	P	0 - 30
2327604	Triadimefon	4.10	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P414017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327564	2,4-D	11.2	Spike	P	0 - 30
2327564	2,4,5-T	15.0	Spike	P	0 - 30
2327564	Acetaminophen	3.33	Spike	P	0 - 30
2327564	Acetamiprid	2.47	Spike	P	0 - 30
2327564	Afidopyropen	5.79	Spike	P	0 - 30
2327564	Bentazon	17.1	Spike	P	0 - 30
2327564	Benzovindiflupyr	14.0	Spike	P	0 - 30
2327564	Carbamazepine	10.5	Spike	P	0 - 30
2327564	Clothianidin	9.29	Spike	P	0 - 30
2327564	Dinotefuran	10.9	Spike	P	0 - 30
2327564	Diuron	10.0	Spike	P	0 - 30
2327564	Fenuron	13.0	Spike	P	0 - 30
2327564	Fluridone	8.14	Spike	P	0 - 30
2327564	Hydrocodone	9.01	Spike	P	0 - 30
2327564	Ibuprofen	10.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P414017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327564	Imazapyr	13.1	Spike	P	0 - 30
2327564	Imidacloprid	13.5	Spike	P	0 - 30
2327564	Linuron	5.41	Spike	P	0 - 30
2327564	Mandestrobin	5.93	Spike	P	0 - 30
2327564	MCPPP	21.4	Spike	P	0 - 30
2327564	Naproxen	23.2	Spike	P	0 - 30
2327564	Primidone	5.29	Spike	P	0 - 30
2327564	Pyraclostrobin	8.97	Spike	P	0 - 30
2327564	Silvex	15.5	Spike	P	0 - 30
2327564	Thiamethoxam	8.31	Spike	P	0 - 30
2327564	Tolfenpyrad	14.1	Spike	P	0 - 30
2327564	Triclopyr	18.1	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P414088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327275	Acesulfame K	5.34	Spike	P	0 - 30
2327275	AMPA	4.17	Spike	P	0 - 30
2327275	Endothall	7.60	Spike	P	0 - 30
2327275	Glufosinate	3.60	Spike	P	0 - 30
2327275	Glyphosate	2.42	Spike	P	0 - 30
2327275	Sucralose	4.21	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P414067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327257	Total Alkalinity	1.61	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P414398

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327324	TDS	5.13	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P414070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327257	Fluoride	0.473	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P414079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P414079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327376	Organic Carbon	0.455	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2327395
Field Sample ID: G2CE0235

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	46.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.6	P	30 - 160
EPA 8321B	Diuron-d6	63.3	P	30 - 160
EPA 8321B	Endothall-d6	95.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.3	P	30 - 160
EPA 8321B	Primidone-d5	76.4	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2327397
Field Sample ID: G2CE0235

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	86.4	P	20 - 200
EPA 8270E	Simazine-d10	78.8	P	71 - 140
EPA 8270E	Terbufos-d10	89.3	P	62 - 131
EPA 8270E	Terphenyl-d14	80.7	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A112198

Included Lab Sample IDs: 2327391

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

Reference Method: DEP SOP: NU-094-1

Run ID: A112208

Included Lab Sample IDs: 2327391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A112209

Included Lab Sample IDs: 2327391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A112219

Included Lab Sample IDs: 2327393

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	98.9	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A112233

Included Lab Sample IDs: 2327396

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.2	98.6	P/P	90 - 110
Antimony	98.8	98.8	P/P	90 - 110
Arsenic	97.3	97.8	P/P	90 - 110
Barium	98.8	98.5	P/P	90 - 110
Beryllium	96.0	95.7	P/P	90 - 110
Boron	100	102	P/P	90 - 110
Cadmium	98.5	98.1	P/P	90 - 110
Chromium	98.4	98.2	P/P	90 - 110
Cobalt	96.6	95.2	P/P	90 - 110
Copper	97.1	96.2	P/P	90 - 110
Lead	98.7	98.5	P/P	90 - 110
Manganese	97.8	97.8	P/P	90 - 110
Molybdenum	98.0	98.2	P/P	90 - 110
Nickel	97.4	95.9	P/P	90 - 110
Selenium	97.3	99.1	P/P	90 - 110
Silver	98.4	98.1	P/P	90 - 110
Thallium	98.4	97.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A112245
Included Lab Sample IDs: 2327391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.2	96.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A112245
Included Lab Sample IDs: 2327391

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

Reference Method: SM 5310 B-2011
Run ID: A112250
Included Lab Sample IDs: 2327392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A112303
Included Lab Sample IDs: 2327396

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	100	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Strontium	104	105	P/P	90 - 110
Tin	104	102	P/P	90 - 110
Titanium	103	102	P/P	90 - 110
Vanadium	104	104	P/P	90 - 110
Zinc	103	102	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A112324
Included Lab Sample IDs: 2327395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.9	91.4	P/P	50 - 150
2,4,5-T	96.4	83.7	P/P	50 - 150
Acetaminophen	109	105	P/P	60 - 160
Acetamiprid	113	110	P/P	50 - 150
Afidopyropen	99.9	91.9	P/P	50 - 150
Bentazon	99.8	101	P/P	50 - 160
Benzovindiflupyr	99.2	98.2	P/P	50 - 150
Carbamazepine	103	102	P/P	60 - 150
Clothianidin	120	124	P/P	60 - 150
Dinotefuran	99.9	98.9	P/P	50 - 150
Diuron	114	109	P/P	60 - 160
Fenuron	97.4	97.8	P/P	60 - 150
Fluridone	105	105	P/P	60 - 160
Hydrocodone	105	111	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A112324
Included Lab Sample IDs: 2327395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	95.6	87.4	P/P	50 - 160
Imazapyr	90.1	84.2	P/P	50 - 150
Imidacloprid	99.2	93.8	P/P	60 - 150
Linuron	99.2	97.2	P/P	60 - 150
Mandestrobin	106	101	P/P	50 - 150
MCPP	102	95.3	P/P	50 - 150
Naproxen	84.5	109	P/P	50 - 160
Primidone	111	92.8	P/P	60 - 150
Pyraclostrobin	105	102	P/P	60 - 150
Silvex	93.6	94.0	P/P	50 - 150
Thiamethoxam	107	102	P/P	50 - 150
Tolfenpyrad	95.3	92.2	P/P	60 - 150
Triclopyr	102	96.2	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A112330
Included Lab Sample IDs: 2327395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	112	119	P/P	60 - 160
Endothall	88.1	112	P/P	60 - 160
Glufosinate	98.2	105	P/P	60 - 160
Glyphosate	98.7	103	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A112331
Included Lab Sample IDs: 2327395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	148	154	P/P	60 - 160
Sucralose	105	105	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A112355
Included Lab Sample IDs: 2327392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112364
Included Lab Sample IDs: 2327392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A112397
Included Lab Sample IDs: 2327392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report

Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A112397

Included Lab Sample IDs: 2327392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.1	97.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A112434

Included Lab Sample IDs: 2327397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	104		P	80 - 120
Atrazine	98.5		P	80 - 120
Atrazine Desethyl	95.9		P	80 - 120
Azinphos Methyl	98.7		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	99.8		P	80 - 120
Butylate	112		P	80 - 120
Caffeine	97.6		P	80 - 120
Carbophenothion	108		P	80 - 120
Carfentrazone Ethyl	103		P	80 - 120
Chlorfenapyr	107		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	103		P	80 - 120
Coumaphos	100		P	80 - 120
Cyanazine	90.4		P	80 - 120
Cyprodinil	98.4		P	80 - 120
Demeton	99.2		P	80 - 120
Diazinon	99.1		P	80 - 120
Difenoconazole	100		P	80 - 120
Dimethenamid	103		P	80 - 120
Dimethomorph	95.5		P	80 - 120
Disulfoton	102		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	96.8		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	102		P	80 - 120
Etridiazole	100		P	80 - 120
Fenamiphos	97.3		P	80 - 120
Fenbuconazole	99.7		P	80 - 120
Fipronil	106		P	80 - 120
Fipronil Desulfinyl	72.3*		F	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	103		P	80 - 120
Fludioxonil	97.4		P	80 - 120
Flumioxazin	97.3		P	80 - 120
Flutolanil	97.9		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	95.5		P	80 - 120
Hexazinone	92.0		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	92.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A112434
 Included Lab Sample IDs: 2327397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Loratadine	101		P	80 - 120
Malathion	97.4		P	80 - 120
Metalaxyl	97.7		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	98.6		P	80 - 120
Mevinphos	99.5		P	80 - 120
Molinate	99.5		P	80 - 120
Myclobutanil	103		P	80 - 120
Naled	105		P	80 - 120
Napropamide	101		P	80 - 120
Norflurazon	98.9		P	80 - 120
Oxadiazon	108		P	80 - 120
Oxyfluorfen	95.9		P	80 - 120
Parathion Ethyl	99.0		P	80 - 120
Parathion Methyl	97.2		P	80 - 120
Pendimethalin	98.6		P	80 - 120
Phenytoin	99.1		P	80 - 120
Phorate	95.7		P	80 - 120
Prodiamine	93.4		P	80 - 120
Prometon	97.6		P	80 - 120
Prometryn	95.6		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	100		P	80 - 120
Propargite	100		P	80 - 120
Propiconazole	100		P	80 - 120
Pyraflufen Ethyl	99.1		P	80 - 120
Pyridaben	101		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	102		P	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	96.7		P	80 - 120
Terbufos	101		P	80 - 120
Terbuthylazine	103		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	100		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A112447
 Included Lab Sample IDs: 2327392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.2	94.0	P/P	90 - 110

Reference Method: EPA 8270E
 Run ID: A112519
 Included Lab Sample IDs: 2327397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	101		P	80 - 120
Octinoxate	97.1		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
Run ID: A112519
Included Lab Sample IDs: 2327397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxybenzone	96.1		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 SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	99.5				0.914	
EPA 180.1 Rev. 2.0	Turbidity	97.4				0.966	
EPA 200.7 Rev. 4.4	Calcium	103	101	101			2.17
	Iron	106	105	104	105		0.848
	Magnesium	102	99.7	102			2.14
	Potassium	108	104	104	102		0.501
	Sodium	108	105	104	101		0.875
	Strontium	106	104	103	104		0.835
	Tin	110	106	106	103		0.549
	Titanium	107	105	105	110		0.218
	Vanadium	101	98.8	98.4	99.0		0.339
	Zinc	106	102	102	98.2		0.0937
EPA 200.8 Rev. 5.4	Aluminum	100	98.0	96.9	108		1.08
	Antimony	102	100	99.6	101		0.481
	Arsenic	98.8	97.5	97.4	97.8		0.147
	Barium	103	102	101	102		0.378
	Beryllium	97.3	94.9	94.9	97.0		0.0651
	Boron	105	103	99.3	104		3.40
	Cadmium	99.6	98.5	96.9	99.5		1.71
	Chromium	98.8	97.0	95.6	102		1.17
	Cobalt	97.2	96.4	95.7	96.8		0.719
	Copper	95.8	94.3	93.5	95.5		0.890
	Lead	101	98.9	99.4	101		0.486
	Manganese	99.5	97.1	99.2			1.69
	Molybdenum	100	101	101	101		0.211
	Nickel	96.3	97.2	97.2	97.9		0.0212
	Selenium	99.1	97.1	97.5	96.7		0.394
	Silver	99.6	98.3	98.6	98.1		0.338
	Thallium	101	101	101	102		1.23
EPA 300.0 Rev. 2.1	Chloride	101	102	102		2.95	
	Sulfate	99.5	99.0	97.8		1.71	
EPA 350.1 Rev. 2.0	Ammonia-N	96.4	95.0	93.6			0.856
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.9	98.6	93.0			4.20
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.5	97.4	95.4			1.61
EPA 365.1 Rev. 2.0	Total-P	104	109	108			0.807
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	95.9	96.5			0.577
EPA 8270E	Acetochlor	98.6	103	104			1.55
	Alachlor	86.4	91.2	91.4			0.235
	Ametryn	114	126	133			5.12
	Atrazine	91.8	95.8	94.6			0.740
	Atrazine Desethyl	61.7	63.2	62.8			0.674
	Avobenzone	127	118	121			2.20
	Azinphos Methyl	152	151	147			2.19
	Azoxystrobin	113	123	118			4.28
	Bromacil	76.7	91.5	87.9			4.03
	Butylate	43.8	49.4	45.7			7.87
	Caffeine	69.2	84.9	90.6			6.50
	Carbophenothion	93.9	98.9	102			3.13
	Carfentrazone Ethyl	111	114	115			0.533
	Chlorfenapyr	78.2	82.4	78.3			5.07
	Chlorpyrifos Ethyl	88.5	95.1	94.0			1.20
	Chlorpyrifos Methyl	85.5	93.1	94.8			1.81
	Coumaphos	148	159	168			5.31
	Cyanazine	126	115	113			2.30

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Cyprodinil	110	122	119		2.05
	Demeton	83.0	94.4	91.4		3.20
	Diazinon	99.5	98.4	104		5.40
	Difenoconazole	57.4	57.4	59.3		3.26
	Dimethenamid	79.8	82.3	81.0		1.45
	Dimethomorph	95.5	98.9	103		3.59
	Disulfoton	84.5	90.6	89.5		1.20
	Dithiopyr	90.3	96.1	91.2		5.20
	EPTC	55.6	52.9	63.0		17.3
	Ethion	83.0	86.4	83.2		3.76
	Ethoprop	88.1	90.3	90.4		0.0581
	Etridiazole	64.2	63.8	70.3		9.77
	Fenamiphos	97.0	108	110		1.77
	Fenbuconazole	146	146	149		1.67
	Fipronil	97.4	109	109		0.303
	Fipronil Desulfinyl	106	108	108		0.263
	Fipronil Sulfide	80.8	92.9	90.3		2.77
	Fipronil Sulfone	91.9	100	106		5.34
	Fluazifop-P-butyl	95.9	98.6	98.3		0.326
	Fludioxonil	104	109	113		3.19
	Flumioxazin	158	229	243		5.90
	Flutolanil	93.6	99.6	102		2.68
	Fluxapyroxad	83.7	79.9	77.8		2.61
	Fonofos	82.6	89.4	83.3		7.01
	Hexazinone	97.3	106	103		2.05
	Imazalil	99.7	87.1	84.7		2.80
	Iprodione	90.8	91.1	89.8		1.42
	Loratadine	85.3	90.0	101		11.1
	Malathion	99.5	112	111		1.07
	Metalaxyl	87.8	89.1	91.8		3.00
	Metolachlor	93.9	96.7	93.5		2.48
	Metribuzin	87.3	90.1	101		11.0
	Mevinphos	73.6	79.4	79.4		0.102
	Molinate	67.9	66.3	70.5		6.10
	Myclobutanil	105	114	115		1.02
	Naled	72.0	90.9	101		10.1
	Napropamide	81.4	83.8	86.3		2.94
	Norflurazon	108	110	112		1.89
	Octinoxate	138	87.1	89.9		2.48
	Oxadiazon	83.3	87.5	87.6		0.149
	Oxybenzone	111	93.1	94.3		1.27
	Oxyfluorfen	115	118	121		2.14
	Parathion Ethyl	94.1	94.3	96.6		2.39
	Parathion Methyl	95.2	104	107		3.34
	Pendimethalin	97.1	107	109		1.30
	Phenytol	91.0	84.0	82.9		1.35
	Phorate	89.4	81.6	77.8		4.85
	Prodiamine	71.9	96.1	83.6		14.0
	Prometon	102	120	104		14.9
	Prometryn	108	116	118		0.973
	Pronamide	101	106	108		1.62
	Propanil	82.4	85.3	85.8		0.558
	Propargite	143	145	148		1.52
	Propiconazole	108	117	118		1.09

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Pyraflufen Ethyl	105	112	118			5.49
	Pyridaben	137	153	156			1.98
	Pyriproxyfen	142	138	138			0.188
	Simazine	85.0	96.8	94.7			2.21
	Stirophos	84.4	94.2	91.6			2.80
	Sulfentrazone	130	87.4	84.3			3.57
	Tebuconazole	32.0	123	122			0.547
	Terbufos	101	108	108			0.663
	Terbutylazine	85.4	90.2	89.6			0.707
	Thiobencarb	85.5	87.3	87.0			0.336
	Triadimefon	80.0	87.5	84.0			4.10
	2,4-D	71.0	80.9	72.4			11.2
EPA 8321B	2,4,5-T	61.3	69.9	60.1			15.0
	Acesulfame K	139	112	118			5.34
	Acetaminophen	59.2	65.0	62.9			3.33
	Acetamiprid	91.9	90.5	88.3			2.47
	Afidopyropen	65.8	61.9	58.4			5.79
	AMPA	112					4.17
	Bentazon	138	176	143			17.1
	Benzovindiflupyr	85.8	100	87.0			14.0
	Carbamazepine	95.5	112	101			10.5
	Clothianidin	99.2	94.1	85.7			9.29
	Dinotefuran	96.6	114	102			10.9
	Diuron	81.8	97.3	88.1			10.0
	Endothall	88.7	89.4	96.5			7.60
	Fenuron	101	112	98.0			13.0
	Fluridone	71.4	83.4	75.6			8.14
	Glufosinate	102	99.2	95.7			3.60
	Glyphosate	99.3					2.42
	Hydrocodone	92.2	108	98.8			9.01
	Ibuprofen	70.8	69.7	62.9			10.3
	Imazapyr	84.9	94.5	82.2			13.1
	Imidacloprid	83.8	110	96.4			13.5
	Linuron	68.6	71.1	67.4			5.41
	Mandestrobin	75.8	77.9	73.4			5.93
	MCPP	93.6	102	82.2			21.4
	Naproxen	66.4	74.7	59.2			23.2
	Primidone	90.5	85.3	80.9			5.29
	Pyraclostrobin	81.1	92.4	84.4			8.97
	Silvex	56.9	65.8	56.4			15.5
	Sucralose	97.9	96.9	102			4.21
	Thiamethoxam	97.5	110	101			8.31
	Tolfenpyrad	44.6	54.2	47.1			14.1
	Triclopyr	66.6	75.3	62.8			18.1
SM 2320 B-2011	Total Alkalinity	98.7				1.61	
SM 2540 C-2011	TDS					5.13	
SM 4500-F- C-2011	Fluoride	99.9	97.5	96.7			0.473
SM 5310 B-2011	Organic Carbon	96.4	94.9	95.5			0.455

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2327391

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2327391
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2327396
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2327396
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2327391
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2327391
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2327392
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2327392
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2327392
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2327392
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2327393
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2327397
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2327397
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2327395
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2327391
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2327396
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2327391
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2327391
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2327391
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2327392

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	05/17/2022			05/17/2022 15:35	Anna M. Plaviak	2327391
EPA 180.1 Rev. 2.0	05/17/2022			05/17/2022 14:18	Khloe J Berg	2327391
EPA 200.7 Rev. 4.4	05/17/2022	05/18/2022 10:05	Megan Whitefoot	05/20/2022 20:56	Josef B Mick	2327396
EPA 200.8 Rev. 5.4	05/17/2022	05/18/2022 10:05	Megan Whitefoot	05/18/2022 21:40	Alexander Thompson	2327396
EPA 300.0 Rev. 2.1	05/17/2022			05/19/2022 10:34	Anna M. Plaviak	2327391
EPA 350.1 Rev. 2.0	05/17/2022			05/25/2022 12:28	Ping Hua	2327392
EPA 351.2 Rev. 2.0	05/17/2022	05/24/2022 15:13	Samantha L Bates	05/26/2022 15:53	Alexandra J Mattheus	2327392
EPA 353.2 Rev. 2.0	05/17/2022			05/24/2022 09:49	Beverly Y. Sanders	2327392
EPA 365.1 Rev. 2.0	05/17/2022	05/20/2022 15:00	Simonne.V. Calhoun	05/24/2022 12:13	James L Waggerby	2327392
EPA 365.1 Rev. 2.0 dissolved	05/17/2022			05/17/2022 18:05	Nathaniel J Jones	2327393
EPA 8270E	05/17/2022	05/23/2022 08:00	Rasheda Ghaffari	05/25/2022 22:31	Vandana T. Nagar	2327397
	05/17/2022	05/23/2022 08:00	Rasheda Ghaffari	05/27/2022 20:57	Lipi Saha	2327397
EPA 8321B	05/17/2022	05/19/2022 10:00	June Rhew	05/21/2022 04:28	Juyoung Kim	2327395
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/21/2022 13:50	Manjita Shrestha	2327395
	05/17/2022	05/20/2022 08:00	Manjita Shrestha	05/22/2022 05:56	Manjita Shrestha	2327395
SM 2320 B-2011	05/17/2022			05/19/2022 01:24	Dale L. Simmons	2327391
SM 2340 B-2011	05/17/2022			05/20/2022 20:56	Josef B Mick	2327396
SM 2540 C-2011	05/17/2022			05/18/2022 14:36	Yijie Li	2327391
SM 2540 D-2011	05/17/2022			05/18/2022 14:36	Yijie Li	2327391
SM 4500-F- C-2011	05/17/2022			05/19/2022 01:24	Dale L. Simmons	2327391
SM 5310 B-2011	05/17/2022			05/19/2022 06:51	Judith K. Clark	2327392