

Chemical Analysis Report

NW-DIST-2023-04-19-02

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **SCI**
Request ID: **RQ-2023-04-17-25**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

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

Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 08-MAY-2023 11:49



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Cotton Creek upstream of power lines

Collection Date/Time: 04/17/2023 10:55

Field ID: G4NW0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401160	DEP SOP: NU-094-1	Color (true)	43	Q	PCU	P428710	
	EPA 180.1 Rev. 2.0	Turbidity	3.2	A	NTU	P428717	
	EPA 300.0 Rev. 2.1	Chloride	3.4		mg Cl/L	P428894	
		Sulfate	0.85		mg SO4/L	P428898	
	SM 2320 B-2011	Total Alkalinity	3.8		mg CaCO3/L	P428868	
	SM 2540 C-2015	TDS	29		mg/L	P429182	
	SM 2540 D-2015	TSS	3	I	mg/L	P429184	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P429109	MS
2401161	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P428966	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20		mg N/L	P428800	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.082		mg N/L	P429084	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P428739	
	SM 5310 B-2011	Organic Carbon	4.6		mg C/L	P428910	
2401162	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	UQ	mg P/L	P428703	
2401192	EPA 8321B	2,4-D	0.0020	U	ug/L	P428689	
		Acesulfame K	0.10	U	ug/L	P428613	
		2,4,5-T	0.0040	U	ug/L	P428689	
		AMPA	0.10	U	ug/L	P428613	
		Acetaminophen	0.0080	U	ug/L	P428689	
		Acetamiprid	0.0020	U	ug/L	P428689	
		Endothall	0.25	U	ug/L	P428613	
		Glufosinate	0.10	U	ug/L	P428613	
		Glyphosate	0.10	U	ug/L	P428613	
		Afidopyrophen	0.0020	U	ug/L	P428689	
		Bentazon	8.0E-04	U	ug/L	P428689	
		Sucralose	0.041		ug/L	P428613	
		Benzovindiflupyr	0.0020	U	ug/L	P428689	
		Carbamazepine	8.0E-04	U	ug/L	P428689	
		Clothianidin	0.0020	U	ug/L	P428689	
		Dinotefuran	0.0020	U	ug/L	P428689	
		Diuron	0.0020	U	ug/L	P428689	
		Fenuron	0.032	U	ug/L	P428689	
		Fluridone	8.0E-04	U	ug/L	P428689	
		Imazapyr	0.0040	U	ug/L	P428689	
		Hydrocodone	0.0020	U	ug/L	P428689	
		Ibuprofen	0.080	U	ug/L	P428689	
		Imidacloprid	0.0020	U	ug/L	P428689	
		Linuron	0.0040	U	ug/L	P428689	
		Mandestrobin	0.0020	U	ug/L	P428689	
		MCP	0.0020	U	ug/L	P428689	
		Naproxen	0.0080	UJ	ug/L	P428689	CCV
		Primidone	0.0040	U	ug/L	P428689	
		Pyraclostrobin	0.0020	U	ug/L	P428689	

Field ID: G4NW0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401192	EPA 8321B	Silvex	0.0040	U	ug/L	P428689	
		Thiamethoxam	0.0020	U	ug/L	P428689	
		Tolfenpyrad	0.0020	U	ug/L	P428689	
		Triclopyr	0.0040	U	ug/L	P428689	
2401193	EPA 200.7 Rev. 4.4	Calcium	2.00		mg/L	P428759	
		Iron	660		ug/L	P428759	
		Magnesium	0.54		mg/L	P428759	
		Potassium	0.30	U	mg/L	P428759	
		Sodium	1.8	I	mg/L	P428759	
		Strontium	7.1	I	ug/L	P428759	
		Tin	3.0	U	ug/L	P428759	
		Titanium	0.97	I	ug/L	P428759	
		Vanadium	2.0	U	ug/L	P428759	
		Zinc	5.0	U	ug/L	P428759	
	EPA 200.8 Rev. 5.4	Aluminum	180		ug/L	P428759	
		Antimony	0.050	U	ug/L	P428759	
		Arsenic	0.23		ug/L	P428759	
		Barium	17.8		ug/L	P428759	
		Beryllium	0.041		ug/L	P428759	
		Boron	7.2	I	ug/L	P428759	
		Cadmium	0.020	U	ug/L	P428759	
		Chromium	0.40	U	ug/L	P428759	
		Cobalt	0.292		ug/L	P428759	
		Copper	0.40	U	ug/L	P428759	
		Lead	0.20	U	ug/L	P428759	
		Manganese	17.5		ug/L	P428759	
		Molybdenum	0.15	U	ug/L	P428759	
		Nickel	0.50	U	ug/L	P428759	
		Selenium	0.20	U	ug/L	P428759	
		Silver	0.010	U	ug/L	P428759	
		Thallium	0.10	U	ug/L	P428759	
		Hardness	7.2		mg/L	P428759	
2401194	SM 2340 B-2011	Oxybenzone**	11	U	ng/L	P428618	
	EPA 8270E	Acetochlor	0.22	U	ng/L	P428618	
		Octinoxate**	80	V	ng/L	P428618	
		Alachlor	0.43	U	ng/L	P428618	
		Avobenzone**	110	U	ng/L	P428618	
		Ametryn	1.2	U	ng/L	P428618	
		Atrazine	0.86	I	ng/L	P428618	
		PBDE-47**	4.3	U	ng/L	P428618	RPD
		Atrazine Desethyl	1.4	U	ng/L	P428618	
		PBDE-99**	5.4	U	ng/L	P428618	RPD
		Azinphos Methyl	3.2	U	ng/L	P428618	
		Tri-o-cresyl Phosphate**	6.5	U	ng/L	P428618	
		Azoxystrobin	0.43	U	ng/L	P428618	

Field ID: G4NW0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401194	EPA 8270E	Bromacil	0.65	U	ng/L	P428618	
		2-Ethylhexyl	13	U	ng/L	P428618	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.22	U	ng/L	P428618	
		Dechlorane Plus**	32	U	ng/L	P428618	
		Caffeine**	17	I	ng/L	P428618	MS, RPD
		Dechlorane 602**	5.4	U	ng/L	P428618	MS, RPD
		Carbophenothion	0.54	U	ng/L	P428618	
		Dechlorane 603**	4.3	U	ng/L	P428618	
		Carfentrazone Ethyl	0.16	U	ng/L	P428618	
		Hexabromobenzene**	6.5	U	ng/L	P428618	
		Chlorfenapyr	0.32	U	ng/L	P428618	
		PBB-153**	8.6	U	ng/L	P428618	
		Chlorpyrifos Ethyl	0.32	U	ng/L	P428618	
		Pentabromotoluene**	3.2	U	ng/L	P428618	
		Chlorpyrifos Methyl	0.11	U	ng/L	P428618	
		Tris(2-chloroethyl) phosphate (TCEP)**	76	U	ng/L	P428618	
		Coumaphos	1.1	U	ng/L	P428618	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	16	UJ	ng/L	P428618	LCS
		Cyanazine	5.4	U	ng/L	P428618	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.7	U	ng/L	P428618	
		Cyprodinil	0.22	U	ng/L	P428618	
		Tetradecachloro-m-terphenyl**	8.1	U	ng/L	P428618	
		Demeton	3.8	U	ng/L	P428618	
		Diazinon	0.13	U	ng/L	P428618	
		Difenoconazole	0.65	U	ng/L	P428618	
		Dimethenamid	0.11	U	ng/L	P428618	MS
		Dimethomorph	0.32	U	ng/L	P428618	
		Disulfoton	0.65	U	ng/L	P428618	
		Dithiopyr	1.1	U	ng/L	P428618	
		EPTC	0.54	U	ng/L	P428618	
		Ethion	0.32	U	ng/L	P428618	
		Ethoprop	0.13	U	ng/L	P428618	
		Etridiazole	0.11	U	ng/L	P428618	
		Fenamiphos	0.49	U	ng/L	P428618	
		Fenbuconazole	0.54	U	ng/L	P428618	
		Fipronil	0.22	U	ng/L	P428618	
		Fipronil Desulfinyl**	0.11	U	ng/L	P428618	
		Fipronil Sulfide	0.11	U	ng/L	P428618	
		Fipronil Sulfone	0.11	U	ng/L	P428618	
		Fluazifop-P-butyl	0.11	U	ng/L	P428618	
		Fludioxonil	0.11	U	ng/L	P428618	
		Flumioxazin	3.2	U	ng/L	P428618	
		Flutolanil	0.11	U	ng/L	P428618	
		Fluxapyroxad	0.27	U	ng/L	P428618	

Field ID: G4NW0034

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401194	EPA 8270E	Fonofos	0.16	U	ng/L	P428618	RPD
		Hexazinone	1.2	I	ng/L	P428618	
		Imazalil	0.70	U	ng/L	P428618	
		Iprodione	0.54	U	ng/L	P428618	
		Loratadine**	0.32	U	ng/L	P428618	
		Malathion	0.38	U	ng/L	P428618	
		Metalaxyl	0.54	U	ng/L	P428618	
		Metolachlor	0.81	U	ng/L	P428618	
		Metribuzin	0.43	U	ng/L	P428618	
		Mevinphos	1.1	U	ng/L	P428618	
		Molinate	0.27	U	ng/L	P428618	
		Myclobutanil	0.38	U	ng/L	P428618	
		Naled	2.7	U	ng/L	P428618	
		Napropamide	0.76	U	ng/L	P428618	
		Norflurazon	1.1	U	ng/L	P428618	
		Oxadiazon	0.38	U	ng/L	P428618	
		Oxyfluorfen	0.22	U	ng/L	P428618	
		Parathion Ethyl	0.16	U	ng/L	P428618	
		Parathion Methyl	0.22	U	ng/L	P428618	
		Pendimethalin	0.81	UJ	ng/L	P428618	LCS
		Phenytain**	5.7	U	ng/L	P428618	
		Phorate	0.27	U	ng/L	P428618	
		Prodiamine	0.22	U	ng/L	P428618	
		Prometon	3.2	U	ng/L	P428618	
		Prometryn	0.38	U	ng/L	P428618	
		Pronamide	0.11	U	ng/L	P428618	MS
		Propanil	0.11	U	ng/L	P428618	
		Propargite	0.86	U	ng/L	P428618	
		Propiconazole	0.65	U	ng/L	P428618	
		Pyraflufen Ethyl	0.32	U	ng/L	P428618	
		Pyridaben	1.5	U	ng/L	P428618	
		Pyriproxyfen	0.27	U	ng/L	P428618	
		Simazine	0.27	U	ng/L	P428618	
		Stirophos	0.43	U	ng/L	P428618	
		Sulfentrazone	1.5	U	ng/L	P428618	
		Tebuconazole	1.5	U	ng/L	P428618	
		Terbufos	0.22	U	ng/L	P428618	
		Terbuthylazine	0.22	U	ng/L	P428618	
		Thiobencarb	0.54	U	ng/L	P428618	
		Triadimefon	0.16	U	ng/L	P428618	

Field ID: G4NW0034

Matrix: W-SURF-FRH

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

Ref. Method and Comment:
DEP SOP: NU-094-1: The sample expired upon receipt.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for TCPP & TDCPP not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of octinoxate in both the Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Non-Conformance Report

NCR ID: 9834

Event(s)

NW-DIST-2023-04-19-02

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

Observation: Samples arrived late, samples received within the acceptable temperature range.

Resolution: Samples will be qualified as appropriate.

Biology and Chemistry supervisors were notified by phone and email.

Authorized by/Date: Joshua Ayres 4/28/2023

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P428710

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428717

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P428759

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: P428759

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: P428894

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: P428898

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428966

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428800

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429084

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428739

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P428703

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

Reference Method: EPA 8270E
Batch ID: P428618

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428618

Component	Result	Code	Units
Azoxystrobin	0.40	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Demeton	3.5	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	0.30	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Etridiazole	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428618

Component	Result	Code	Units
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428618

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	68		ng/L
Octinoxate	59	I	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytol	5.3	U	ng/L
Phenytol	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiatone	0.20	U	ng/L
Prodiatone	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428618

Component	Result	Code	Units
Sulfentrazone	1.4	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbufos	0.20	U	ng/L
Terbutylazine	0.20	U	ng/L
Terbutylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: EPA 8321B

Batch ID: P428613

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: P428689

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
Afidopyopen	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P428689

Component	Result	Code	Units
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P428868

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

Reference Method: SM 2540 C-2015

Batch ID: P429182

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P429184

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P429109

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P428910

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: P428710

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	98.4		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P428759

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	98.2		P	80 - 120
Iron	98.6		P	80 - 120
Magnesium	100		P	80 - 120
Potassium	98.0		P	80 - 120
Sodium	101		P	80 - 120
Strontium	94.9		P	80 - 120
Tin	94.6		P	80 - 120
Titanium	95.7		P	80 - 120
Vanadium	95.9		P	80 - 120
Zinc	98.2		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P428759

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.8		P	85 - 115
Antimony	98.5		P	85 - 115
Arsenic	98.1		P	85 - 115
Barium	100		P	85 - 115
Beryllium	93.8		P	85 - 115
Boron	100		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	98.8		P	85 - 115
Cobalt	98.8		P	85 - 115
Copper	97.2		P	85 - 115
Lead	93.3		P	85 - 115
Manganese	96.5		P	85 - 115
Molybdenum	97.9		P	85 - 115
Nickel	98.8		P	85 - 115
Selenium	96.7		P	85 - 115
Silver	98.4		P	85 - 115
Thallium	98.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428894

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428898

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429084

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: P428739

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P428703

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

Reference Method: EPA 8270E
Batch ID: P428618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.7		P	42 - 162
Acetochlor	72.8		P	69 - 123
Alachlor	106		P	65 - 118
Ametryn	107		P	58 - 141
Atrazine	98.3		P	73 - 118
Atrazine Desethyl	90.1		P	32 - 125
Avobenzone	124		P	40 - 203
Azinphos Methyl	116		P	36 - 197
Azoxystrobin	104		P	58 - 226
Bromacil	112		P	48 - 120
Butylate	61.8		P	27 - 85.0
Caffeine	93.1		P	40 - 137
Carbophenothion	111		P	54 - 132
Carfentrazone Ethyl	127		P	60 - 142
Chlorfenapyr	65.0		P	53 - 117
Chlorpyrifos Ethyl	82.6		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P428618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	96.1		P	66 - 119
Coumaphos	137		P	11 - 234
Cyanazine	131		P	61 - 248
Cyprodinil	91.3		P	50 - 147
Dechlorane 602	74.9		P	50 - 150
Dechlorane 603	99.2		P	50 - 150
Dechlorane Plus	64.0		P	47 - 182
Demeton	76.3		P	30 - 138
Diazinon	118		P	67 - 126
Difenoconazole	111		P	38 - 205
Dimethenamid	108		P	57 - 111
Dimethomorph	83.3		P	16 - 212
Disulfoton	108		P	46 - 126
Dithiopyr	107		P	62 - 115
EPTC	60.9		P	28 - 80.0
Ethion	106		P	24 - 122
Ethoprop	101		P	62 - 113
Etridiazole	66.5		P	28 - 92.0
Fenamiphos	77.7		P	57 - 128
Fenbuconazole	79.5		P	52 - 155
Fipronil	75.5		P	63 - 130
Fipronil Desulfinyl	94.6		P	61 - 130
Fipronil Sulfide	89.0		P	56 - 117
Fipronil Sulfone	107		P	52 - 118
Fluazifop-P-butyl	70.7		P	61 - 128
Fludioxonil	83.7		P	59 - 129
Flumioxazin	183		P	30 - 250
Flutolanil	82.5		P	53 - 127
Fluxapyroxad	103		P	42 - 132
Fonofos	83.3		P	61 - 110
Hexabromobenzene	86.1		P	50 - 150
Hexazinone	96.1		P	46 - 139
Imazalil	77.2		P	40 - 139
Iprodione	91.3		P	40 - 146
Loratadine	140		P	10 - 224
Malathion	96.5		P	61 - 135
Metaxyl	107		P	58 - 121
Metolachlor	90.5		P	64 - 118
Metribuzin	109		P	45 - 245
Mevinphos	88.7		P	49 - 118
Molinate	61.0		P	42 - 92.0
Myclobutanil	110		P	55 - 127
Naled	43.5		P	10 - 114
Napropamide	79.9		P	39 - 121
Norflurazon	104		P	55 - 129
Octinoxate	110		P	26 - 166
Oxadiazon	92.5		P	54 - 115
Oxybenzone	68.8		P	49 - 135
Oxyfluorfen	96.8		P	64 - 139
Parathion Ethyl	93.8		P	70 - 111
Parathion Methyl	108		P	76 - 136
PBB-153	100		P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P428618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	78.4		P	41 - 148
PBDE-99	80.3		P	38 - 147
Pendimethalin	135		F	52 - 118
Pentabromotoluene	72.0		P	50 - 150
Phenytoin	127		P	10 - 162
Phorate	96.3		P	40 - 122
Prodiamine	68.8		P	26 - 141
Prometon	102		P	54 - 122
Prometryn	126		P	61 - 128
Pronamide	114		P	72 - 121
Propanil	122		P	45 - 144
Propargite	108		P	10 - 199
Propiconazole	70.3		P	56 - 127
Pyraflufen Ethyl	57.3		P	56 - 140
Pyridaben	80.5		P	26 - 211
Pyriproxyfen	122		P	33 - 194
Simazine	80.5		P	67 - 121
Stirophos	97.3		P	20 - 142
Sulfentrazone	104		P	21 - 144
Tebuconazole	90.6		P	10 - 122
Terbufos	117		P	60 - 129
Terbutylazine	82.8		P	69 - 113
Tetradecachloro-m-terphenyl	139		P	70 - 200
Thiobencarb	110		P	51 - 120
Tri-o-cresyl Phosphate	80.7		P	49 - 150
Triadimefon	95.1		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	43.4		F	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	69.3		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	78.0		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P428613

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	119		P	40 - 150
Endothall	92.8		P	40 - 150
Glufosinate	93.7		P	40 - 150
Glyphosate	119		P	40 - 150
Sucralose	99.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P428689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	112		P	40 - 150
2,4,5-T	90.5		P	40 - 150
Acetaminophen	86.5		P	30 - 150
Acetamiprid	79.8		P	40 - 150
Afidopyropen	53.3		P	30 - 150
Bentazon	110		P	30 - 150
Benzovindiflupyr	79.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P428689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	91.8		P	40 - 150
Clothianidin	102		P	40 - 150
Dinotefuran	103		P	40 - 150
Diuron	92.5		P	40 - 150
Fenuron	93.0		P	40 - 150
Fluridone	89.2		P	40 - 150
Hydrocodone	94.5		P	40 - 150
Ibuprofen	75.9		P	40 - 150
Imazapyr	98.2		P	40 - 150
Imidacloprid	87.1		P	40 - 150
Linuron	88.9		P	40 - 150
Mandestrobin	84.2		P	40 - 150
MCPP	115		P	40 - 150
Naproxen	72.9		P	40 - 150
Primidone	89.3		P	40 - 150
Pyraclostrobin	80.8		P	40 - 150
Silvex	105		P	40 - 150
Thiamethoxam	96.9		P	40 - 150
Tolfenpyrad	50.2		P	30 - 150
Triclopyr	104		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P428868

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.3		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P429182

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.2		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P429184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.9		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P429109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P428910

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P428759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401110	Calcium	97.5		P	80 - 120
2401110	Iron	98.1	99.4	P/P	80 - 120
2401110	Magnesium	99.2	101	P/P	80 - 120
2401110	Potassium	96.9	96.5	P/P	80 - 120
2401110	Sodium	99.1	99.6	P/P	80 - 120
2401110	Strontium	95.0	95.0	P/P	80 - 120
2401110	Tin	95.8	94.4	P/P	80 - 120
2401110	Titanium	95.5	95.3	P/P	80 - 120
2401110	Vanadium	96.8	95.6	P/P	80 - 120
2401110	Zinc	95.9	96.0	P/P	80 - 120
2401492	Calcium	95.3		P	80 - 120
2401492	Iron	98.4		P	80 - 120
2401492	Magnesium	96.9		P	80 - 120
2401492	Potassium	94.7		P	80 - 120
2401492	Sodium	97.9		P	80 - 120
2401492	Strontium	94.7		P	80 - 120
2401492	Tin	93.5		P	80 - 120
2401492	Titanium	96.5		P	80 - 120
2401492	Vanadium	97.1		P	80 - 120
2401492	Zinc	97.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401110	Aluminum	95.2	95.6	P/P	80 - 120
2401110	Antimony	98.2	98.8	P/P	80 - 120
2401110	Arsenic	96.3	96.7	P/P	80 - 120
2401110	Barium	99.4	100	P/P	80 - 120
2401110	Beryllium	92.3	90.5	P/P	80 - 120
2401110	Boron	98.0	99.4	P/P	80 - 120
2401110	Cadmium	96.6	100	P/P	80 - 120
2401110	Chromium	99.2	99.3	P/P	80 - 120
2401110	Cobalt	95.5	96.9	P/P	80 - 120
2401110	Copper	95.7	95.3	P/P	80 - 120
2401110	Lead	93.8	93.0	P/P	80 - 120
2401110	Manganese	96.7	95.7	P/P	80 - 120
2401110	Molybdenum	98.5	97.5	P/P	80 - 120
2401110	Nickel	96.4	96.9	P/P	80 - 120
2401110	Selenium	95.7	96.1	P/P	80 - 120
2401110	Silver	97.7	98.7	P/P	80 - 120
2401110	Thallium	99.9	98.8	P/P	80 - 120
2401492	Aluminum	97.2		P	80 - 120
2401492	Antimony	98.3		P	80 - 120
2401492	Arsenic	96.1		P	80 - 120
2401492	Barium	99.6		P	80 - 120
2401492	Beryllium	89.9		P	80 - 120
2401492	Boron	100		P	80 - 120
2401492	Cadmium	97.8		P	80 - 120
2401492	Chromium	98.1		P	80 - 120
2401492	Cobalt	95.6		P	80 - 120
2401492	Copper	96.4		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428759

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401492	Lead	93.9		P	80 - 120
2401492	Manganese	96.6		P	80 - 120
2401492	Molybdenum	97.1		P	80 - 120
2401492	Nickel	96.5		P	80 - 120
2401492	Selenium	94.9		P	80 - 120
2401492	Silver	95.7		P	80 - 120
2401492	Thallium	98.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P428894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401008	Chloride	103		P	90 - 110
2401091	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P428898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401008	Sulfate	101		P	90 - 110
2401091	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P428966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401122	Ammonia-N	98.6	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P428800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401182	Kjeldahl Nitrogen	92.6	89.4	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P429084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401122	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P428739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401161	Total-P	105	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P428703

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401162	O-Phosphate-P	99.3	99.5	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P428618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400840	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	110	78.7	P/P	26 - 165
2400840	Acetochlor	87.1	89.6	P/P	67 - 124
2400840	Alachlor	97.7	105	P/P	60 - 120
2400840	Ametryn	115	112	P/P	54 - 216
2400840	Atrazine Desethyl	87.7	79.3	P/P	15 - 122
2400840	Avobenzone	136	128	P/P	37 - 178
2400840	Azinphos Methyl	116	119	P/P	40 - 292
2400840	Azoxystrobin	101	138	P/P	35 - 220
2400840	Bromacil	111	122	P/P	45 - 127
2400840	Butylate	58.0	50.0	P/P	20 - 83.0
2400840	Caffeine	132	863	P/F	10 - 194
2400840	Carbophenothion	113	104	P/P	57 - 127
2400840	Carfentrazone Ethyl	127	115	P/P	51 - 141
2400840	Chlorpyrifos Ethyl	75.3	72.9	P/P	52 - 120
2400840	Chlorpyrifos Methyl	101	102	P/P	63 - 119
2400840	Coumaphos	150	129	P/P	10 - 228
2400840	Cyanazine	132	128	P/P	59 - 241
2400840	Cyprodinil	104	107	P/P	47 - 146
2400840	Dechlorane 602	87.7	39.8	P/F	50 - 150
2400840	Dechlorane 603	120	95.3	P/P	50 - 150
2400840	Dechlorane Plus	69.9	61.0	P/P	50 - 150
2400840	Demeton	105	103	P/P	40 - 136
2400840	Diazinon	123	115	P/P	69 - 132
2400840	Difenoconazole	131	93.2	P/P	57 - 258
2400840	Dimethenamid	120	104	F/P	54 - 110
2400840	Dimethomorph	136	139	P/P	28 - 210
2400840	Disulfoton	115	113	P/P	43 - 133
2400840	Dithiopyr	98.5	85.6	P/P	39 - 116
2400840	EPTC	54.5	45.4	P/P	20 - 78.0
2400840	Ethion	114	98.0	P/P	17 - 119
2400840	Ethoprop	92.7	101	P/P	66 - 120
2400840	Etridiazole	71.7	61.4	P/P	28 - 96.0
2400840	Fenamiphos	96.3	103	P/P	41 - 126
2400840	Fenbuconazole	83.8	81.3	P/P	42 - 169
2400840	Fluazifop-P-butyl	63.3	67.6	P/P	53 - 131
2400840	Fludioxonil	74.7	68.4	P/P	56 - 127
2400840	Flumioxazin	202	153	P/P	19 - 300
2400840	Flutolanil	103	106	P/P	41 - 127
2400840	Fluxapyroxad	114	85.2	P/P	42 - 172
2400840	Fonofos	108	75.4	P/P	59 - 113
2400840	Hexabromobenzene	96.0	86.8	P/P	50 - 150
2400840	Hexazinone	117	96.6	P/P	66 - 122
2400840	Imazalil	140	139	P/P	21 - 283
2400840	Iprodione	105	91.9	P/P	43 - 150
2400840	Loratadine	166	148	P/P	23 - 201
2400840	Malathion	115	96.8	P/P	58 - 136
2400840	Metalaxyl	90.4	85.7	P/P	55 - 120
2400840	Metolachlor	97.5	106	P/P	57 - 121
2400840	Metribuzin	99.1	106	P/P	58 - 294
2400840	Mevinphos	95.6	96.1	P/P	50 - 126
2400840	Molinate	57.5	57.0	P/P	42 - 93.0
2400840	Myclobutanil	115	101	P/P	55 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P428618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400840	Naled	50.6	49.6	P/P	18 - 200
2400840	Napropamide	91.1	70.9	P/P	39 - 110
2400840	Norflurazon	116	99.6	P/P	48 - 128
2400840	Octinoxate	82.3	80.2	P/P	21 - 159
2400840	Oxadiazon	87.9	81.4	P/P	43 - 112
2400840	Oxybenzone	82.2	78.8	P/P	41 - 142
2400840	Oxyfluorfen	110	103	P/P	64 - 153
2400840	Parathion Ethyl	103	107	P/P	69 - 114
2400840	Parathion Methyl	116	118	P/P	79 - 139
2400840	PBB-153	117	95.3	P/P	50 - 150
2400840	PBDE-47	87.4	53.9	P/P	27 - 144
2400840	PBDE-99	94.5	52.8	P/P	18 - 150
2400840	Pendimethalin	119	89.6	P/P	50 - 139
2400840	Pentabromotoluene	83.5	76.4	P/P	50 - 150
2400840	Phorate	142	149	P/P	54 - 161
2400840	Prodiamine	81.4	70.6	P/P	30 - 161
2400840	Prometon	111	103	P/P	45 - 134
2400840	Prometryn	128	129	P/P	45 - 137
2400840	Pronamide	137	134	F/F	65 - 133
2400840	Propanil	119	116	P/P	49 - 142
2400840	Propargite	101	86.0	P/P	10 - 203
2400840	Propiconazole	107	111	P/P	38 - 146
2400840	Pyraflufen Ethyl	58.6	63.5	P/P	34 - 153
2400840	Pyridaben	118	122	P/P	12 - 192
2400840	Pyriproxyfen	124	103	P/P	33 - 180
2400840	Stirophos	105	60.7	P/P	10 - 128
2400840	Sulfentrazone	119	103	P/P	53 - 186
2400840	Tebuconazole	120	43.7	P/P	10 - 133
2400840	Terbufos	134	137	P/P	65 - 139
2400840	Terbutylazine	101	95.4	P/P	66 - 117
2400840	Tetradecachloro-m-terphenyl	161	144	P/P	70 - 200
2400840	Thiobencarb	101	111	P/P	51 - 119
2400840	Tri-o-cresyl Phosphate	91.0	80.1	P/P	31 - 144
2400840	Triadimefon	95.8	102	P/P	48 - 119
2400840	Tris(2-chloroethyl) phosphate (TCEP)	95.6	83.2	P/P	70 - 180

Reference Method: EPA 8321B

Batch ID: P428613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400874	Acesulfame K	101	102	P/P	40 - 150
2400874	AMPA	95.2	98.5	P/P	40 - 150
2400874	Endothall	95.6	98.8	P/P	40 - 150
2400874	Glufosinate	89.3	89.3	P/P	40 - 150
2400874	Glyphosate	92.4	90.9	P/P	40 - 150
2400874	Sucralose	99.4	98.6	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P428689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400932	2,4-D	136	143	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P428689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400932	2,4,5-T	125	134	P/P	40 - 150
2400932	Acetaminophen	91.8	95.6	P/P	30 - 150
2400932	Acetamiprid	90.2	95.3	P/P	40 - 150
2400932	Afidopyropen	77.8	74.3	P/P	30 - 150
2400932	Bentazon	104	106	P/P	30 - 150
2400932	Benzovindiflupyr	78.4	84.4	P/P	40 - 150
2400932	Carbamazepine	84.9	84.8	P/P	40 - 150
2400932	Clothianidin	106	109	P/P	40 - 150
2400932	Dinotefuran	94.7	101	P/P	40 - 150
2400932	Diuron	80.6	80.1	P/P	40 - 150
2400932	Fenuron	81.5	85.6	P/P	40 - 150
2400932	Fluridone	83.8	91.3	P/P	40 - 150
2400932	Hydrocodone	77.4	82.4	P/P	40 - 150
2400932	Ibuprofen	66.5	84.2	P/P	40 - 150
2400932	Imazapyr	120	114	P/P	40 - 150
2400932	Imidacloprid	100	105	P/P	40 - 150
2400932	Linuron	75.6	83.0	P/P	40 - 150
2400932	Mandestrobin	86.9	93.0	P/P	40 - 150
2400932	MCCP	142	145	P/P	40 - 150
2400932	Naproxen	72.5	92.2	P/P	40 - 150
2400932	Primidone	91.6	96.3	P/P	40 - 150
2400932	Pyraclostrobin	78.9	84.0	P/P	40 - 150
2400932	Silvex	110	117	P/P	40 - 150
2400932	Thiamethoxam	96.4	99.0	P/P	40 - 150
2400932	Tolfenpyrad	46.2	50.7	P/P	30 - 150
2400932	Triclopyr	134	140	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P429109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2400967	Fluoride	105	106	F/F	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P428910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401014	Organic Carbon	96.2	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P428710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401090	Color (true)	0.488	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401160	Turbidity	5.93	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P428759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401110	Calcium	0.934	Spike	P	0 - 20
2401110	Iron	1.27	Spike	P	0 - 20
2401110	Magnesium	0.997	Spike	P	0 - 20
2401110	Potassium	0.340	Spike	P	0 - 20
2401110	Sodium	0.382	Spike	P	0 - 20
2401110	Strontium	0.00319	Spike	P	0 - 20
2401110	Tin	1.49	Spike	P	0 - 20
2401110	Titanium	0.160	Spike	P	0 - 20
2401110	Vanadium	1.24	Spike	P	0 - 20
2401110	Zinc	0.0458	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P428759

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401110	Aluminum	0.382	Spike	P	0 - 20
2401110	Antimony	0.566	Spike	P	0 - 20
2401110	Arsenic	0.407	Spike	P	0 - 20
2401110	Barium	0.530	Spike	P	0 - 20
2401110	Beryllium	1.79	Spike	P	0 - 20
2401110	Boron	1.30	Spike	P	0 - 20
2401110	Cadmium	3.46	Spike	P	0 - 20
2401110	Chromium	0.0745	Spike	P	0 - 20
2401110	Cobalt	1.43	Spike	P	0 - 20
2401110	Copper	0.458	Spike	P	0 - 20
2401110	Lead	0.852	Spike	P	0 - 20
2401110	Manganese	0.912	Spike	P	0 - 20
2401110	Molybdenum	1.03	Spike	P	0 - 20
2401110	Nickel	0.535	Spike	P	0 - 20
2401110	Selenium	0.486	Spike	P	0 - 20
2401110	Silver	1.01	Spike	P	0 - 20
2401110	Thallium	1.18	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401008	Chloride	0.204	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401008	Sulfate	0.227	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401122	Ammonia-N	1.89	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401182	Kjeldahl Nitrogen	2.31	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401122	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401161	Total-P	1.58	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P428703

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401162	O-Phosphate-P	0.201	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P428618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400840	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	33.0	Spike	P	0 - 37
2400840	Acetochlor	2.78	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P428618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400840	Alachlor	7.55	Spike	P	0 - 30
2400840	Ametryn	2.88	Spike	P	0 - 32
2400840	Atrazine	3.09	Spike	P	0 - 41
2400840	Atrazine Desethyl	8.09	Spike	P	0 - 36
2400840	Avobenzone	6.26	Spike	P	0 - 36
2400840	Azinphos Methyl	2.08	Spike	P	0 - 75
2400840	Azoxystrobin	25.7	Spike	P	0 - 39
2400840	Bromacil	8.43	Spike	P	0 - 33
2400840	Butylate	14.8	Spike	P	0 - 44
2400840	Caffeine	128	Spike	F	0 - 74
2400840	Carbophenothion	8.14	Spike	P	0 - 25
2400840	Carfentrazone Ethyl	9.59	Spike	P	0 - 27
2400840	Chlorfenapyr	9.29	Spike	P	0 - 24
2400840	Chlorpyrifos Ethyl	3.26	Spike	P	0 - 26
2400840	Chlorpyrifos Methyl	0.926	Spike	P	0 - 26
2400840	Coumaphos	14.8	Spike	P	0 - 28
2400840	Cyanazine	2.44	Spike	P	0 - 48
2400840	Cyprodinil	2.75	Spike	P	0 - 29
2400840	Dechlorane 602	75.0	Spike	F	0 - 30
2400840	Dechlorane 603	22.7	Spike	P	0 - 30
2400840	Dechlorane Plus	13.6	Spike	P	0 - 30
2400840	Demeton	1.67	Spike	P	0 - 33
2400840	Diazinon	7.13	Spike	P	0 - 29
2400840	Difenoconazole	33.5	Spike	P	0 - 34
2400840	Dimethenamid	13.9	Spike	P	0 - 39
2400840	Dimethomorph	1.97	Spike	P	0 - 51
2400840	Disulfoton	1.67	Spike	P	0 - 30
2400840	Dithiopyr	14.0	Spike	P	0 - 26
2400840	EPTC	18.3	Spike	P	0 - 43
2400840	Ethion	15.3	Spike	P	0 - 79
2400840	Ethoprop	8.46	Spike	P	0 - 29
2400840	Etridiazole	15.5	Spike	P	0 - 33
2400840	Fenamiphos	7.21	Spike	P	0 - 40
2400840	Fenbuconazole	3.11	Spike	P	0 - 74
2400840	Fipronil	12.0	Spike	P	0 - 29
2400840	Fipronil Desulfinyl	2.89	Spike	P	0 - 32
2400840	Fipronil Sulfide	8.23	Spike	P	0 - 30
2400840	Fipronil Sulfone	14.8	Spike	P	0 - 33
2400840	Fluazifop-P-butyl	6.59	Spike	P	0 - 38
2400840	Fludioxonil	4.26	Spike	P	0 - 29
2400840	Flumioxazin	27.5	Spike	P	0 - 51
2400840	Flutolanil	2.67	Spike	P	0 - 25
2400840	Fluxapyroxad	28.5	Spike	P	0 - 45
2400840	Fonofos	35.5	Spike	F	0 - 27
2400840	Hexabromobenzene	9.98	Spike	P	0 - 30
2400840	Hexazinone	14.7	Spike	P	0 - 30
2400840	Imazalil	0.981	Spike	P	0 - 100
2400840	Iprodione	13.3	Spike	P	0 - 33
2400840	Loratadine	8.27	Spike	P	0 - 56
2400840	Malathion	16.8	Spike	P	0 - 37
2400840	Metalaxyl	5.37	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P428618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400840	Metolachlor	8.20	Spike	P	0 - 29
2400840	Metribuzin	6.46	Spike	P	0 - 45
2400840	Mevinphos	0.509	Spike	P	0 - 29
2400840	Molinate	0.855	Spike	P	0 - 33
2400840	Myclobutanil	12.8	Spike	P	0 - 26
2400840	Naled	1.88	Spike	P	0 - 37
2400840	Napropamide	24.9	Spike	P	0 - 44
2400840	Norflurazon	15.6	Spike	P	0 - 30
2400840	Octinoxate	2.28	Spike	P	0 - 45
2400840	Oxadiazon	7.66	Spike	P	0 - 28
2400840	Oxybenzone	4.24	Spike	P	0 - 46
2400840	Oxyfluorfen	6.64	Spike	P	0 - 28
2400840	Parathion Ethyl	3.16	Spike	P	0 - 31
2400840	Parathion Methyl	1.57	Spike	P	0 - 29
2400840	PBB-153	20.5	Spike	P	0 - 30
2400840	PBDE-47	47.3	Spike	F	0 - 36
2400840	PBDE-99	56.5	Spike	F	0 - 40
2400840	Pendimethalin	28.0	Spike	P	0 - 33
2400840	Pentabromotoluene	8.88	Spike	P	0 - 30
2400840	Phenytoin	23.5	Spike	P	0 - 100
2400840	Phorate	4.90	Spike	P	0 - 36
2400840	Prodiamine	14.2	Spike	P	0 - 71
2400840	Prometon	7.92	Spike	P	0 - 36
2400840	Prometryn	0.903	Spike	P	0 - 28
2400840	Pronamide	2.64	Spike	P	0 - 24
2400840	Propanil	2.23	Spike	P	0 - 28
2400840	Propargite	15.6	Spike	P	0 - 43
2400840	Propiconazole	3.92	Spike	P	0 - 33
2400840	Pyraflufen Ethyl	7.88	Spike	P	0 - 29
2400840	Pyridaben	3.72	Spike	P	0 - 30
2400840	Pyriproxyfen	18.9	Spike	P	0 - 79
2400840	Simazine	2.44	Spike	P	0 - 29
2400840	Stirophos	53.9	Spike	P	0 - 61
2400840	Sulfentrazone	8.25	Spike	P	0 - 33
2400840	Tebuconazole	56.8	Spike	P	0 - 69
2400840	Terbufos	2.37	Spike	P	0 - 29
2400840	Terbuthylazine	5.50	Spike	P	0 - 32
2400840	Tetradecachloro-m-terphenyl	11.0	Spike	P	0 - 30
2400840	Thiobencarb	10.1	Spike	P	0 - 26
2400840	Tri-o-cresyl Phosphate	12.8	Spike	P	0 - 33
2400840	Triadimefon	6.40	Spike	P	0 - 28
2400840	Tris(1-chloro-2-propyl) phosphate (TCPP)	4.57	Spike	P	0 - 30
2400840	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	12.9	Spike	P	0 - 30
2400840	Tris(2-chloroethyl) phosphate (TCEP)	14.0	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P428613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400874	Acesulfame K	1.17	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P428613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400874	AMPA	3.12	Spike	P	0 - 30
2400874	Endothall	3.29	Spike	P	0 - 30
2400874	Glufosinate	0.0219	Spike	P	0 - 30
2400874	Glyphosate	1.15	Spike	P	0 - 30
2400874	Sucralose	0.682	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P428689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400932	2,4-D	4.92	Spike	P	0 - 30
2400932	2,4,5-T	7.17	Spike	P	0 - 30
2400932	Acetaminophen	3.98	Spike	P	0 - 30
2400932	Acetamiprid	5.50	Spike	P	0 - 30
2400932	Afidopyropen	4.60	Spike	P	0 - 30
2400932	Bentazon	1.96	Spike	P	0 - 30
2400932	Benzovindiflupyr	7.45	Spike	P	0 - 30
2400932	Carbamazepine	0.165	Spike	P	0 - 30
2400932	Clothianidin	3.58	Spike	P	0 - 30
2400932	Dinotefuran	6.91	Spike	P	0 - 30
2400932	Diuron	0.687	Spike	P	0 - 30
2400932	Fenuron	4.97	Spike	P	0 - 30
2400932	Fluridone	8.61	Spike	P	0 - 30
2400932	Hydrocodone	6.26	Spike	P	0 - 30
2400932	Ibuprofen	23.5	Spike	P	0 - 30
2400932	Imazapyr	4.40	Spike	P	0 - 30
2400932	Imidacloprid	5.25	Spike	P	0 - 30
2400932	Linuron	9.29	Spike	P	0 - 30
2400932	Mandestrobin	6.80	Spike	P	0 - 30
2400932	MCPP	2.19	Spike	P	0 - 30
2400932	Naproxen	23.9	Spike	P	0 - 30
2400932	Primidone	4.97	Spike	P	0 - 30
2400932	Pyraclostrobin	6.25	Spike	P	0 - 30
2400932	Silvex	6.28	Spike	P	0 - 30
2400932	Thiamethoxam	2.67	Spike	P	0 - 30
2400932	Tolfenpyrad	9.20	Spike	P	0 - 30
2400932	Triclopyr	4.03	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P428868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401010	Total Alkalinity	1.34	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P429182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P429182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401119	TDS	4.74	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P429109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2400967	Fluoride	0.470	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P428910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401014	Organic Carbon	0.0	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2401192
Field Sample ID: G4NW0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	145	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.6	P	30 - 160
EPA 8321B	Diuron-d6	75.2	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	87.7	P	30 - 160
EPA 8321B	Primidone-d5	115	P	30 - 160
EPA 8321B	Sucralose-d6	93.8	P	30 - 160

Lab Sample ID: 2401194
Field Sample ID: G4NW0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	90.2	P	20 - 200
EPA 8270E	Simazine-d10	108	P	62 - 142
EPA 8270E	Terbufos-d10	79.8	P	58 - 132
EPA 8270E	Terphenyl-d14	80.1	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118641

Included Lab Sample IDs: 2401160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.1	99.6	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A118662

Included Lab Sample IDs: 2401162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	99.1	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A118664

Included Lab Sample IDs: 2401160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	99.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118666

Included Lab Sample IDs: 2401160

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118721

Included Lab Sample IDs: 2401161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	98.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A118726

Included Lab Sample IDs: 2401160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.8	95.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118728

Included Lab Sample IDs: 2401193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.6	96.0	P/P	90 - 110
Antimony	96.8	96.3	P/P	90 - 110
Arsenic	95.7	96.0	P/P	90 - 110
Barium	97.1	95.8	P/P	90 - 110
Beryllium	93.1	91.7	P/P	90 - 110
Boron	95.8	95.6	P/P	90 - 110
Cadmium	95.9	96.0	P/P	90 - 110
Chromium	96.6	96.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118728

Included Lab Sample IDs: 2401193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	96.8	94.7	P/P	90 - 110
Copper	93.3	93.3	P/P	90 - 110
Lead	91.4	90.2	P/P	90 - 110
Manganese	96.4	95.7	P/P	90 - 110
Molybdenum	95.3	94.4	P/P	90 - 110
Nickel	94.2	94.2	P/P	90 - 110
Selenium	96.3	96.1	P/P	90 - 110
Silver	94.8	94.5	P/P	90 - 110
Thallium	96.7	95.1	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A118740

Included Lab Sample IDs: 2401161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.8	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A118758

Included Lab Sample IDs: 2401192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	113	P/P	60 - 160
Sucralose	96.4	97.8	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A118762

Included Lab Sample IDs: 2401192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	120	119	P/P	60 - 160
Endothall	98.8	104	P/P	60 - 160
Glufosinate	101	96.4	P/P	60 - 160
Glyphosate	119	109	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118765

Included Lab Sample IDs: 2401161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	96.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118767

Included Lab Sample IDs: 2401161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	99.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A118780
Included Lab Sample IDs: 2401192

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.0	101	P/P	50 - 150
2,4,5-T	86.7	114	P/P	50 - 150
Acetaminophen	97.6	98.7	P/P	60 - 160
Acetamiprid	107	105	P/P	50 - 150
Afidopyropen	101	81.8	P/P	50 - 150
Bentazon	121	132	P/P	50 - 160
Benzovindiflupyr	102	102	P/P	50 - 150
Carbamazepine	117	111	P/P	60 - 150
Clothianidin	121	116	P/P	60 - 150
Dinotefuran	112	112	P/P	50 - 150
Diuron	107	114	P/P	60 - 160
Fenuron	112	112	P/P	60 - 150
Fluridone	104	110	P/P	60 - 160
Hydrocodone	110	111	P/P	60 - 150
Ibuprofen	104	60.3	P/P	50 - 160
Imazapyr	106	105	P/P	50 - 150
Imidacloprid	96.3	88.2	P/P	60 - 150
Linuron	111	100	P/P	60 - 150
Mandestrobin	102	101	P/P	50 - 150
MCPP	100	106	P/P	50 - 150
Naproxen	108	172*	P/F	50 - 160
Primidone	104	102	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Silvex	83.5	102	P/P	50 - 150
Thiamethoxam	122	121	P/P	50 - 150
Tolfenpyrad	98.7	102	P/P	60 - 150
Triclopyr	106	106	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A118783
Included Lab Sample IDs: 2401161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A118787
Included Lab Sample IDs: 2401194

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	93.4		P	80 - 120
Ametryn	96.0		P	80 - 120
Atrazine	105		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	88.3		P	80 - 120
Azoxystrobin	113		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	106		P	80 - 120
Caffeine	99.8		P	80 - 120
Carbophenothion	84.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118787
Included Lab Sample IDs: 2401194

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carfentrazone Ethyl	86.3		P	80 - 120
Chlorfenapyr	98.0		P	80 - 120
Chlorpyrifos Ethyl	97.2		P	80 - 120
Chlorpyrifos Methyl	94.9		P	80 - 120
Coumaphos	89.0		P	80 - 120
Cyanazine	117		P	80 - 120
Cyprodinil	90.6		P	80 - 120
Demeton	103		P	80 - 120
Diazinon	99.8		P	80 - 120
Difenoconazole	118		P	80 - 120
Dimethenamid	102		P	80 - 120
Dimethomorph	116		P	80 - 120
Disulfoton	96.3		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	105		P	80 - 120
Ethion	92.8		P	80 - 120
Ethoprop	97.9		P	80 - 120
Etridiazole	107		P	80 - 120
Fenamiphos	105		P	80 - 120
Fenbuconazole	88.3		P	80 - 120
Fipronil	119		P	80 - 120
Fipronil Desulfinyl	86.5		P	80 - 120
Fipronil Sulfide	106		P	80 - 120
Fipronil Sulfone	108		P	80 - 120
Fluazifop-P-butyl	98.3		P	80 - 120
Fludioxonil	104		P	80 - 120
Flumioxazin	107		P	80 - 120
Flutolanil	98.4		P	80 - 120
Fluxapyroxad	83.6		P	80 - 120
Fonofos	91.8		P	80 - 120
Hexazinone	97.9		P	80 - 120
Imazalil	88.8		P	80 - 120
Iprodione	89.5		P	80 - 120
Loratadine	118		P	80 - 120
Malathion	96.6		P	80 - 120
Metaxyl	101		P	80 - 120
Metolachlor	98.3		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	109		P	80 - 120
Molinate	95.7		P	80 - 120
Myclobutanil	113		P	80 - 120
Naled	103		P	80 - 120
Napropamide	104		P	80 - 120
Norflurazon	98.3		P	80 - 120
Oxadiazon	95.3		P	80 - 120
Oxyfluorfen	108		P	80 - 120
Parathion Ethyl	116		P	80 - 120
Parathion Methyl	94.3		P	80 - 120
Pendimethalin	87.2		P	80 - 120
Phenytoin	103		P	80 - 120
Phorate	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118787
Included Lab Sample IDs: 2401194

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prodiamine	96.8		P	80 - 120
Prometon	97.0		P	80 - 120
Prometryn	97.9		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	95.1		P	80 - 120
Propargite	100		P	80 - 120
Propiconazole	88.6		P	80 - 120
Pyraflufen Ethyl	95.4		P	80 - 120
Pyridaben	93.1		P	80 - 120
Pyriproxyfen	96.7		P	80 - 120
Simazine	99.4		P	80 - 120
Stirophos	93.5		P	80 - 120
Sulfentrazone	87.1		P	80 - 120
Tebuconazole	88.6		P	80 - 120
Terbufos	94.9		P	80 - 120
Terbutylazine	96.0		P	80 - 120
Thiobencarb	103		P	80 - 120
Triadimefon	100		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A118815
Included Lab Sample IDs: 2401193

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.4	97.8	P/P	90 - 110
Iron	98.8	99.6	P/P	90 - 110
Magnesium	98.1	99.0	P/P	90 - 110
Potassium	97.8	98.2	P/P	90 - 110
Sodium	98.8	97.6	P/P	90 - 110
Strontium	94.7	92.0	P/P	90 - 110
Tin	95.3	93.5	P/P	90 - 110
Titanium	94.4	92.8	P/P	90 - 110
Vanadium	95.1	94.0	P/P	90 - 110
Zinc	97.1	93.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A118831
Included Lab Sample IDs: 2401160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	105	106	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A118844
Included Lab Sample IDs: 2401194

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	92.6		P	80 - 120
Avobenzone	90.2		P	80 - 120
Dechlorane 602	101		P	80 - 120
Dechlorane 603	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118844
Included Lab Sample IDs: 2401194

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dechlorane Plus	103		P	80 - 120
Hexabromobenzene	96.5		P	80 - 120
Octinoxate	91.2		P	80 - 120
Oxybenzone	88.5		P	80 - 120
PBB-153	96.5		P	80 - 120
PBDE-47	92.4		P	80 - 120
PBDE-99	96.0		P	80 - 120
Pentabromotoluene	99.9		P	80 - 120
Tetradecachloro-m-terphenyl	97.5		P	80 - 120
Tri-o-cresyl Phosphate	94.4		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	92.0		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	91.8		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	87.9		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 SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	96.7				0.488	
EPA 180.1 Rev. 2.0	Turbidity	98.4				5.93	
EPA 200.7 Rev. 4.4	Calcium	98.2		97.5	95.3		0.934
	Iron	98.6		98.1	99.4	98.4	1.27
	Magnesium	100		99.2	101	96.9	0.997
	Potassium	98.0		96.9	96.5	94.7	0.340
	Sodium	101		99.1	99.6	97.9	0.382
	Strontium	94.9		95.0	95.0	94.7	0.0031
	Tin	94.6		95.8	94.4	93.5	1.49
	Titanium	95.7		95.5	95.3	96.5	0.160
	Vanadium	95.9		96.8	95.6	97.1	1.24
	Zinc	98.2		95.9	96.0	97.5	0.0458
EPA 200.8 Rev. 5.4	Aluminum	98.8		95.2	95.6	97.2	0.382
	Antimony	98.5		98.2	98.8	98.3	0.566
	Arsenic	98.1		96.3	96.7	96.1	0.407
	Barium	100		99.4	100	99.6	0.530
	Beryllium	93.8		92.3	90.5	89.9	1.79
	Boron	100		98.0	99.4	100	1.30
	Cadmium	100		96.6	100	97.8	3.46
	Chromium	98.8		99.2	99.3	98.1	0.0745
	Cobalt	98.8		95.5	96.9	95.6	1.43
	Copper	97.2		95.7	95.3	96.4	0.458
	Lead	93.3		93.8	93.0	93.9	0.852
	Manganese	96.5		96.7	95.7	96.6	0.912
	Molybdenum	97.9		98.5	97.5	97.1	1.03
	Nickel	98.8		96.4	96.9	96.5	0.535
	Selenium	96.7		95.7	96.1	94.9	0.486
	Silver	98.4		97.7	98.7	95.7	1.01
	Thallium	98.2		99.9	98.8	98.3	1.18
EPA 300.0 Rev. 2.1	Chloride	99.9		103	103		0.204
	Sulfate	102		101	103		0.227
EPA 350.1 Rev. 2.0	Ammonia-N	99.0		98.6	96.6		1.89
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.2		92.6	89.4		2.31
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	102		0.0
EPA 365.1 Rev. 2.0	Total-P	102		105	107		1.58
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.5		99.3	99.5		0.201
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.7		110	78.7		33.0
	Acetochlor	72.8		89.6	87.1		2.78
	Alachlor	106		105	97.7		7.55
	Ametryn	107		112	115		2.88
	Atrazine	98.3					3.09
	Atrazine Desethyl	90.1		79.3	87.7		8.09
	Avobenzone	124		136	128		6.26
	Azinphos Methyl	116		119	116		2.08
	Azoxystrobin	104		138	101		25.7
	Bromacil	112		122	111		8.43
	Butylate	61.8		50.0	58.0		14.8
	Caffeine	93.1		132	863		128
	Carbophenothion	111		104	113		8.14
	Carfentrazone Ethyl	127		115	127		9.59
	Chlorfenapyr	65.0					9.29
	Chlorpyrifos Ethyl	82.6		72.9	75.3		3.26

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	96.1	102	101		0.926
	Coumaphos	137	129	150		14.8
	Cyanazine	131	128	132		2.44
	Cyprodinil	91.3	107	104		2.75
	Dechlorane 602	74.9	87.7	39.8		75.0
	Dechlorane 603	99.2	120	95.3		22.7
	Dechlorane Plus	64.0	69.9	61.0		13.6
	Demeton	76.3	103	105		1.67
	Diazinon	118	115	123		7.13
	Difenoconazole	111	93.2	131		33.5
	Dimethenamid	108	104	120		13.9
	Dimethomorph	83.3	136	139		1.97
	Disulfoton	108	113	115		1.67
	Dithiopyr	107	85.6	98.5		14.0
	EPTC	60.9	45.4	54.5		18.3
	Ethion	106	98.0	114		15.3
	Ethoprop	101	101	92.7		8.46
	Etridiazole	66.5	61.4	71.7		15.5
	Fenamiphos	77.7	103	96.3		7.21
	Fenbuconazole	79.5	81.3	83.8		3.11
	Fipronil	75.5				12.0
	Fipronil Desulfinyl	94.6				2.89
	Fipronil Sulfide	89.0				8.23
	Fipronil Sulfone	107				14.8
	Fluazifop-P-butyl	70.7	67.6	63.3		6.59
	Fludioxonil	83.7	68.4	74.7		4.26
	Flumioxazin	183	153	202		27.5
	Flutolanil	82.5	103	106		2.67
	Fluxapyroxad	103	85.2	114		28.5
	Fonofos	83.3	108	75.4		35.5
	Hexabromobenzene	86.1	96.0	86.8		9.98
	Hexazinone	96.1	96.6	117		14.7
	Imazalil	77.2	139	140		0.981
	Iprodione	91.3	91.9	105		13.3
	Loratadine	140	148	166		8.27
	Malathion	96.5	96.8	115		16.8
	Metalaxyl	107	85.7	90.4		5.37
	Metolachlor	90.5	106	97.5		8.20
	Metribuzin	109	106	99.1		6.46
	Mevinphos	88.7	96.1	95.6		0.509
	Molinate	61.0	57.0	57.5		0.855
	Myclobutanil	110	101	115		12.8
	Naled	43.5	49.6	50.6		1.88
	Napropamide	79.9	70.9	91.1		24.9
	Norflurazon	104	99.6	116		15.6
	Octinoxate	110	82.3	80.2		2.28
	Oxadiazon	92.5	81.4	87.9		7.66
	Oxybenzone	68.8	82.2	78.8		4.24
	Oxyfluorfen	96.8	103	110		6.64
	Parathion Ethyl	93.8	107	103		3.16
	Parathion Methyl	108	118	116		1.57
	PBB-153	100	117	95.3		20.5
	PBDE-47	78.4	87.4	53.9		47.3
	PBDE-99	80.3	94.5	52.8		56.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision SMP	MS
						LCS	
EPA 8270E	Pendimethalin	135		119	89.6		28.0
	Pentabromotoluene	72.0		83.5	76.4		8.88
	Phenytoln	127					23.5
	Phorate	96.3		142	149		4.90
	Prodiamine	68.8		70.6	81.4		14.2
	Prometon	102		103	111		7.92
	Prometryn	126		129	128		0.903
	Pronamide	114		137	134		2.64
	Propanil	122		116	119		2.23
	Propargite	108		86.0	101		15.6
	Propiconazole	70.3		111	107		3.92
	Pyraflufen Ethyl	57.3		63.5	58.6		7.88
	Pyridaben	80.5		118	122		3.72
	Pyriproxyfen	122		124	103		18.9
	Simazine	80.5					2.44
	Stiropfos	97.3		105	60.7		53.9
	Sulfentrazone	104		119	103		8.25
	Tebuconazole	90.6		120	43.7		56.8
	Terbufos	117		134	137		2.37
	Terbutylazine	82.8		101	95.4		5.50
	Tetradecachloro-m-terphenyl	139		161	144		11.0
	Thiobencarb	110		101	111		10.1
	Tri-o-cresyl Phosphate	80.7		91.0	80.1		12.8
	Triadimefon	95.1		95.8	102		6.40
	Tris(1-chloro-2-propyl) phosphate (TCPP)	43.4					4.57
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	69.3					12.9
	Tris(2-chloroethyl) phosphate (TCEP)	78.0		95.6	83.2		14.0
EPA 8321B	2,4-D	112		136	143		4.92
	2,4,5-T	90.5		125	134		7.17
	Acesulfame K	112		101	102		1.17
	Acetaminophen	86.5		91.8	95.6		3.98
	Acetamiprid	79.8		90.2	95.3		5.50
	Afidopyropen	53.3		77.8	74.3		4.60
	AMPA	119		95.2	98.5		3.12
	Bentazon	110		104	106		1.96
	Benzovindiflupyr	79.9		78.4	84.4		7.45
	Carbamazepine	91.8		84.9	84.8		0.165
	Clothianidin	102		106	109		3.58
	Dinotefuran	103		94.7	101		6.91
	Diuron	92.5		80.6	80.1		0.687
	Endothall	92.8		95.6	98.8		3.29
	Fenuron	93.0		81.5	85.6		4.97
	Fluridone	89.2		83.8	91.3		8.61
	Glufosinate	93.7		89.3	89.3		0.0219
	Glyphosate	119		92.4	90.9		1.15
	Hydrocodone	94.5		77.4	82.4		6.26
	Ibuprofen	75.9		66.5	84.2		23.5
	Imazapyr	98.2		120	114		4.40
	Imidacloprid	87.1		100	105		5.25
	Linuron	88.9		75.6	83.0		9.29
	Mandestrobin	84.2		86.9	93.0		6.80

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8321B	MCP	115	142	145			2.19
	Naproxen	72.9	72.5	92.2			23.9
	Primidone	89.3	91.6	96.3			4.97
	Pyraclostrobin	80.8	78.9	84.0			6.25
	Silvex	105	110	117			6.28
	Sucralose	99.5	99.4	98.6			0.682
	Thiamethoxam	96.9	96.4	99.0			2.67
	Tolfenpyrad	50.2	46.2	50.7			9.20
	Triclopyr	104	134	140			4.03
SM 2320 B-2011	Total Alkalinity	96.3				1.34	
SM 2540 C-2015	TDS	94.2				4.74	
SM 2540 D-2015	TSS	95.9					
SM 4500-F- C-2011	Fluoride	103	105	106			0.470
SM 5310 B-2011	Organic Carbon	96.1	96.2	96.2			0.0

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2401160
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2401160
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2401193
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2401193
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2401160
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2401160
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2401161
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2401161
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2401161
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2401161
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2401162
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2401194
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2401194
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2401192
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2401160
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2401193
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2401160
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2401160
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2401160
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2401161

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	04/19/2023			04/19/2023 10:58	Anna M. Plaviak	2401160
EPA 180.1 Rev. 2.0	04/19/2023			04/19/2023 10:27	Khloe J Berg	2401160
EPA 200.7 Rev. 4.4	04/19/2023	04/20/2023 11:20	George D Taylor	04/26/2023 22:36	McKinley C Carter	2401193
EPA 200.8 Rev. 5.4	04/19/2023	04/20/2023 11:20	George D Taylor	04/21/2023 15:47	Emily M Philpot	2401193
EPA 300.0 Rev. 2.1	04/19/2023			04/21/2023 17:06	James L Waggerby	2401160
EPA 350.1 Rev. 2.0	04/19/2023			04/25/2023 13:43	Ping Hua	2401161
EPA 351.2 Rev. 2.0	04/19/2023	04/21/2023 11:01	Simonne.V. Calhoun	04/25/2023 14:46	Samantha L Bates	2401161
EPA 353.2 Rev. 2.0	04/19/2023			04/26/2023 10:25	Beverly Y. Sanders	2401161
EPA 365.1 Rev. 2.0	04/19/2023	04/20/2023 13:15	Alexis Price	04/22/2023 13:54	James L Waggerby	2401161
EPA 365.1 Rev. 2.0 dissolved	04/19/2023			04/19/2023 13:50	Elise M. Gillis	2401162
EPA 8270E	04/19/2023	04/20/2023 08:00	Rasheda Ghaffari	04/25/2023 18:44	Vandana T. Nagar	2401194
	04/19/2023	04/20/2023 08:00	Rasheda Ghaffari	04/27/2023 22:02	Arthur Maknenko	2401194
EPA 8321B	04/19/2023	04/21/2023 09:00	Manjita Shrestha	04/21/2023 15:22	Manjita Shrestha	2401192
	04/19/2023	04/21/2023 09:00	Manjita Shrestha	04/22/2023 11:07	Manjita Shrestha	2401192
	04/19/2023	04/24/2023 08:00	Hoor Shaik	04/26/2023 06:58	Juyoung Kim	2401192
SM 2320 B-2011	04/19/2023			04/22/2023 02:15	Dale L. Simmons	2401160
SM 2340 B-2011	04/19/2023			04/26/2023 22:36	McKinley C Carter	2401193
SM 2540 C-2015	04/19/2023			04/21/2023 14:41	Yijie Li	2401160
SM 2540 D-2015	04/19/2023			04/21/2023 14:41	Yijie Li	2401160
SM 4500-F- C-2011	04/19/2023			04/26/2023 19:16	Dale L. Simmons	2401160
SM 5310 B-2011	04/19/2023			04/21/2023 23:15	Elise M. Gillis	2401161