

Chemical Analysis Report

CEN-DIST-2023-05-12-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

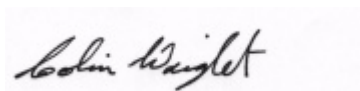
Event Description: **Lake Susan LVI**
Request ID: **RQ-2023-05-15-19**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Colin Wright, Program Administrator

Date Certified: 05-JUN-2023 10:21



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 Susan @ Center

Collection Date/Time: 05/11/2023 12:02

Field ID: G1CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409286	DEP SOP: NU-094-1	Color (true)	490		PCU	P429836	
	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P429840	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P430019	
		Sulfate	1.8		mg SO4/L	P430023	
	SM 2320 B-2011	Total Alkalinity	0.81	I	mg CaCO3/L	P430154	
	SM 2540 C-2015	TDS	133		mg/L	P430415	
	SM 2540 D-2015	TSS	2	U	mg/L	P430220	
2409287	SM 4500-F- C-2011	Fluoride	0.068	I	mg F/L	P430159	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P429971	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P430038	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.075		mg N/L	P430280	
	EPA 365.1 Rev. 2.0	Total-P	0.027		mg P/L	P429863	
2409288	SM 5310 B-2011	Organic Carbon	39		mg C/L	P429963	
2409288	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P429830	
2409296	EPA 8321B	2,4-D	0.12		ug/L	P429889	
		Acesulfame K	0.10	U	ug/L	P429806	
		2,4,5-T	0.0040	U	ug/L	P429889	
		AMPA	0.10	U	ug/L	P429806	
		Acetaminophen	0.018	I	ug/L	P429889	
		Acetamiprid	0.0020	U	ug/L	P429889	
		Endothall	0.25	U	ug/L	P429806	
		Glufosinate	0.10	U	ug/L	P429806	
		Glyphosate	0.54		ug/L	P429806	
		Afidopyrophen	0.0020	U	ug/L	P429889	
		Bentazon	8.0E-04	U	ug/L	P429889	
		Sucralose	0.089		ug/L	P429806	
		Benzovindiflupyr	0.0020	U	ug/L	P429889	
		Carbamazepine	8.0E-04	U	ug/L	P429889	
		Clothianidin	0.0020	U	ug/L	P429889	
		Dinotefuran	0.0020	U	ug/L	P429889	
		Diuron	0.0020	U	ug/L	P429889	
		Fenuron	0.032	U	ug/L	P429889	
		Fluridone	8.0E-04	U	ug/L	P429889	
		Imazapyr	0.096		ug/L	P429889	
		Hydrocodone	0.0020	U	ug/L	P429889	
		Ibuprofen	0.080	U	ug/L	P429889	
		Imidacloprid	0.0020	U	ug/L	P429889	
		Linuron	0.0040	U	ug/L	P429889	
		Mandestrobin	0.0020	U	ug/L	P429889	
		MCPD	0.0020	U	ug/L	P429889	
		Naproxen	0.0080	U	ug/L	P429889	
		Primidone	0.0040	U	ug/L	P429889	
		Pyraclostrobin	0.0020	U	ug/L	P429889	

Field ID: G1CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409296	EPA 8321B	Silvex	0.0040	U	ug/L	P429889	
		Thiamethoxam	0.0020	U	ug/L	P429889	
		Tolfenpyrad	0.0020	U	ug/L	P429889	
		Triclopyr	0.0040	U	ug/L	P429889	
2409297	EPA 200.7 Rev. 4.4	Calcium	5.22		mg/L	P429881	
		Iron	1.38E+03		ug/L	P429881	
		Magnesium	2.04		mg/L	P429881	
		Potassium	0.98	I	mg/L	P429881	
		Sodium	8.8		mg/L	P429881	
		Strontium	20.7		ug/L	P429881	
		Tin	3.0	U	ug/L	P429881	
		Titanium	1.6	I	ug/L	P429881	
		Vanadium	2.0	U	ug/L	P429881	
		Zinc	6.0	I	ug/L	P429881	
	EPA 200.8 Rev. 5.4	Aluminum	480		ug/L	P429881	
		Antimony	0.082	I	ug/L	P429881	
		Arsenic	0.85		ug/L	P429881	
		Barium	14.2		ug/L	P429881	
		Beryllium	0.028	I	ug/L	P429881	
		Boron	36.3		ug/L	P429881	
		Cadmium	0.020	U	ug/L	P429881	
		Chromium	0.71	I	ug/L	P429881	
		Cobalt	0.339		ug/L	P429881	
		Copper	1.65		ug/L	P429881	
		Lead	1.11		ug/L	P429881	
		Manganese	5.50		ug/L	P429881	
2409298	EPA 8270E	Molybdenum	0.15	U	ug/L	P429881	
		Nickel	0.71	I	ug/L	P429881	
		Selenium	0.20	U	ug/L	P429881	
		Silver	0.010	U	ug/L	P429881	
		Thallium	0.10	U	ug/L	P429881	
		Hardness	21.4		mg/L	P429881	
		Oxybenzone**	11	U	ng/L	P430093	
		Acetochlor	0.23	U	ng/L	P430093	
		Octinoxate**	23	U	ng/L	P430093	
		Alachlor	0.45	U	ng/L	P430093	
		Avobenzone**	110	U	ng/L	P430093	
		Ametryn	1.2	U	ng/L	P430093	
		Atrazine	0.59	I	ng/L	P430093	
		PBDE-47**	4.5	U	ng/L	P430093	
		Atrazine Desethyl	1.5	U	ng/L	P430093	
		PBDE-99**	5.7	U	ng/L	P430093	
		Azinphos Methyl	3.4	U	ng/L	P430093	
		Tri-o-cresyl Phosphate**	6.8	U	ng/L	P430093	
		Azoxystrobin	64		ng/L	P430093	

Field ID: G1CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409298	EPA 8270E	Bromacil	0.68	U	ng/L	P430093	
		2-Ethylhexyl	14	U	ng/L	P430093	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.23	U	ng/L	P430093	
		Dechlorane Plus**	34	U	ng/L	P430093	
		Caffeine**	8.5	U	ng/L	P430093	
		Dechlorane 602**	5.7	U	ng/L	P430093	
		Carbophenothion	0.57	U	ng/L	P430093	
		Dechlorane 603**	4.5	U	ng/L	P430093	
		Carfentrazone Ethyl	0.17	U	ng/L	P430093	
		Hexabromobenzene**	6.8	U	ng/L	P430093	
		Chlorfenapyr	0.34	U	ng/L	P430093	
		PBB-153**	9.0	U	ng/L	P430093	
		Chlorpyrifos Ethyl	0.34	U	ng/L	P430093	
		Pentabromotoluene**	3.4	U	ng/L	P430093	
		Chlorpyrifos Methyl	0.11	U	ng/L	P430093	
		Tris(2-chloroethyl) phosphate (TCEP)**	79	U	ng/L	P430093	
		Coumaphos	1.2	U	ng/L	P430093	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	17	U	ng/L	P430093	
		Cyanazine	5.7	U	ng/L	P430093	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.8	U	ng/L	P430093	
		Cyprodinil	0.34	I	ng/L	P430093	
		Tetradecachloro-m-terphenyl**	8.5	U	ng/L	P430093	
		Demeton	4.0	U	ng/L	P430093	
		Diazinon	0.14	U	ng/L	P430093	
		Difenoconazole	6.6		ng/L	P430093	
		Dimethenamid	0.11	U	ng/L	P430093	
		Dimethomorph	0.34	U	ng/L	P430093	
		Disulfoton	0.68	U	ng/L	P430093	
		Dithiopyr	1.1	U	ng/L	P430093	
		EPTC	0.57	U	ng/L	P430093	
		Ethion	0.34	U	ng/L	P430093	
		Ethoprop	0.64	I	ng/L	P430093	
		Etridiazole	0.11	U	ng/L	P430093	
		Fenamiphos	0.51	U	ng/L	P430093	
		Fenbuconazole	0.57	U	ng/L	P430093	
		Fipronil	0.28	I	ng/L	P430093	
		Fipronil Desulfinyl**	0.42	I	ng/L	P430093	
		Fipronil Sulfide	2.8		ng/L	P430093	
		Fipronil Sulfone	5.1		ng/L	P430093	
		Fluazifop-P-butyl	0.11	U	ng/L	P430093	
		Fludioxonil	24		ng/L	P430093	
		Flumioxazin	3.4	U	ng/L	P430093	
		Flutolanil	0.68		ng/L	P430093	
		Fluxapyroxad	6.6		ng/L	P430093	

Field ID: G1CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409298	EPA 8270E	Fonofos	0.17	U	ng/L	P430093	
		Hexazinone	0.57	U	ng/L	P430093	
		Imazalil	0.74	U	ng/L	P430093	
		Iprodione	0.57	U	ng/L	P430093	
		Loratadine**	0.34	U	ng/L	P430093	
		Malathion	0.40	U	ng/L	P430093	
		Metalaxyl	2.7	I	ng/L	P430093	
		Metolachlor	68		ng/L	P430093	
		Metribuzin	15		ng/L	P430093	
		Mevinphos	1.1	U	ng/L	P430093	
		Molinate	0.28	U	ng/L	P430093	
		Myclobutanil	0.40	U	ng/L	P430093	
		Naled	2.8	U	ng/L	P430093	
		Napropamide	4.7		ng/L	P430093	
		Norflurazon	1.1	U	ng/L	P430093	
		Oxadiazon	0.40	U	ng/L	P430093	
		Oxyfluorfen	0.23	U	ng/L	P430093	
		Parathion Ethyl	0.17	U	ng/L	P430093	
		Parathion Methyl	0.23	U	ng/L	P430093	
		Pendimethalin	0.85	UJ	ng/L	P430093	LCS
		Phenytol**	6.0	U	ng/L	P430093	
		Phorate	0.28	U	ng/L	P430093	
		Prodiamine	0.23	U	ng/L	P430093	
		Prometon	3.4	U	ng/L	P430093	
		Prometryn	0.40	U	ng/L	P430093	
		Pronamide	0.11	U	ng/L	P430093	
		Propanil	0.11	U	ng/L	P430093	
		Propargite	0.90	U	ng/L	P430093	
		Propiconazole	1.0	I	ng/L	P430093	
		Pyraflufen Ethyl	0.34	U	ng/L	P430093	
		Pyridaben	1.6	U	ng/L	P430093	
		Pyriproxyfen	0.28	U	ng/L	P430093	
		Simazine	0.28	U	ng/L	P430093	
		Stirophos	0.45	U	ng/L	P430093	
		Sulfentrazone	1.6	U	ng/L	P430093	
		Tebuconazole	1.6	U	ng/L	P430093	
		Terbufos	0.23	U	ng/L	P430093	
		Terbuthylazine	0.23	U	ng/L	P430093	
		Thiobencarb	0.57	U	ng/L	P430093	
		Triadimefon	0.17	U	ng/L	P430093	

Ref. Method and Comment:

SM 2540 D-2015: 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: The lead result was confirmed in the undigested sample on 05/17/2023.

EPA 8270E: MS data not assessed due to spiking error.

EPA 8270E: MS data not assessed due to spiking error. 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: P429836

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429840

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429881

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: P429881

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: P430019

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: P430023

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429971

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430038

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430280

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429863

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429830

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

Reference Method: EPA 8270E
Batch ID: P430093

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: P430093

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: P430093

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: P430093

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	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: P430093

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: P429806

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: P429889

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: P429889

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: P430154

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

Reference Method: SM 2540 C-2015

Batch ID: P430415

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P430220

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P430159

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P429963

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: P429836

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429840

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	106		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	98.1		P	85 - 115
Strontium	100		P	85 - 115
Tin	105		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.8		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	98.6		P	85 - 115
Barium	102		P	85 - 115
Beryllium	94.6		P	85 - 115
Boron	101		P	85 - 115
Cadmium	99.3		P	85 - 115
Chromium	93.3		P	85 - 115
Cobalt	99.4		P	85 - 115
Copper	96.4		P	85 - 115
Lead	101		P	85 - 115
Manganese	96.4		P	85 - 115
Molybdenum	97.5		P	85 - 115
Nickel	95.9		P	85 - 115
Selenium	98.7		P	85 - 115
Silver	102		P	85 - 115
Thallium	97.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430019

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430023

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429971

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430038

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430280

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: P429863

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: P429830

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

Reference Method: EPA 8270E
Batch ID: P430093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	84.1		P	42 - 162
Acetochlor	81.7		P	69 - 123
Alachlor	99.5		P	65 - 118
Ametryn	105		P	58 - 141
Atrazine	83.2		P	73 - 118
Atrazine Desethyl	98.2		P	32 - 125
Avobenzone	157		P	40 - 203
Azinphos Methyl	101		P	36 - 197
Azoxystrobin	103		P	58 - 226
Bromacil	105		P	48 - 120
Butylate	73.8		P	27 - 85.0
Caffeine	82.1		P	40 - 137
Carbophenothion	105		P	54 - 132
Carfentrazone Ethyl	114		P	60 - 142
Chlorfenapyr	86.1		P	53 - 117
Chlorpyrifos Ethyl	94.4		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P430093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	100		P	66 - 119
Coumaphos	72.3		P	11 - 234
Cyanazine	113		P	61 - 248
Cyprodinil	116		P	50 - 147
Dechlorane 602	80.1		P	50 - 150
Dechlorane 603	118		P	50 - 150
Dechlorane Plus	93.0		P	47 - 182
Demeton	79.0		P	30 - 138
Diazinon	102		P	67 - 126
Difenoconazole	77.1		P	38 - 205
Dimethenamid	100		P	57 - 111
Dimethomorph	169		P	16 - 212
Disulfoton	102		P	46 - 126
Dithiopyr	102		P	62 - 115
EPTC	71.1		P	28 - 80.0
Ethion	103		P	24 - 122
Ethoprop	92.8		P	62 - 113
Etridiazole	72.4		P	28 - 92.0
Fenamiphos	94.9		P	57 - 128
Fenbuconazole	58.8		P	52 - 155
Fipronil	99.9		P	63 - 130
Fipronil Desulfinyl	97.7		P	61 - 130
Fipronil Sulfide	104		P	56 - 117
Fipronil Sulfone	91.9		P	52 - 118
Fluazifop-P-butyl	71.0		P	61 - 128
Fludioxonil	83.2		P	59 - 129
Flumioxazin	98.1		P	30 - 250
Flutolanil	84.2		P	53 - 127
Fluxapyroxad	85.7		P	42 - 132
Fonofos	102		P	61 - 110
Hexabromobenzene	86.7		P	50 - 150
Hexazinone	95.1		P	46 - 139
Imazalil	79.6		P	40 - 139
Iprodione	76.5		P	40 - 146
Loratadine	106		P	10 - 224
Malathion	93.4		P	61 - 135
Metaxyl	90.5		P	58 - 121
Metolachlor	113		P	64 - 118
Metribuzin	97.4		P	45 - 245
Mevinphos	83.7		P	49 - 118
Molinate	66.1		P	42 - 92.0
Myclobutanil	96.8		P	55 - 127
Naled	38.2		P	10 - 114
Napropamide	85.9		P	39 - 121
Norflurazon	86.1		P	55 - 129
Octinoxate	118		P	26 - 166
Oxadiazon	90.6		P	54 - 115
Oxybenzone	111		P	49 - 135
Oxyfluorfen	113		P	64 - 139
Parathion Ethyl	92.6		P	70 - 111
Parathion Methyl	101		P	76 - 136
PBB-153	111		P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P430093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	97.2		P	41 - 148
PBDE-99	69.4		P	38 - 147
Pendimethalin	141		F	52 - 118
Pentabromotoluene	108		P	50 - 150
Phenytoin	40.3		P	10 - 162
Phorate	120		P	40 - 122
Prodiamine	67.4		P	26 - 141
Prometon	99.0		P	54 - 122
Prometryn	121		P	61 - 128
Pronamide	111		P	72 - 121
Propanil	92.4		P	45 - 144
Propargite	70.9		P	10 - 199
Propiconazole	79.7		P	56 - 127
Pyraflufen Ethyl	68.2		P	56 - 140
Pyridaben	83.7		P	26 - 211
Pyriproxyfen	85.0		P	33 - 194
Simazine	88.4		P	67 - 121
Stirophos	82.9		P	20 - 142
Sulfentrazone	63.3		P	21 - 144
Tebuconazole	62.8		P	10 - 122
Terbufos	103		P	60 - 129
Terbutylazine	85.0		P	69 - 113
Tetradecachloro-m-terphenyl	107		P	70 - 200
Thiobencarb	103		P	51 - 120
Tri-o-cresyl Phosphate	125		P	49 - 150
Triadimefon	93.0		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	103		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	119		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P429806

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	109		P	40 - 150
Endothall	82.9		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	121		P	40 - 150
Sucralose	91.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P429889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.3		P	40 - 150
2,4,5-T	89.3		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Acetamiprid	70.0		P	40 - 150
Afidopyropen	62.5		P	30 - 150
Bentazon	120		P	30 - 150
Benzovindiflupyr	76.4		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P429889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	76.1		P	40 - 150
Clothianidin	80.8		P	40 - 150
Dinotefuran	88.8		P	40 - 150
Diuron	75.8		P	40 - 150
Fenuron	81.6		P	40 - 150
Fluridone	77.1		P	40 - 150
Hydrocodone	86.6		P	40 - 150
Ibuprofen	75.7		P	40 - 150
Imazapyr	83.8		P	40 - 150
Imidacloprid	80.5		P	40 - 150
Linuron	75.8		P	40 - 150
Mandestrobin	75.4		P	40 - 150
MCPP	96.5		P	40 - 150
Naproxen	74.1		P	40 - 150
Primidone	83.1		P	40 - 150
Pyraclostrobin	76.6		P	40 - 150
Silvex	100		P	40 - 150
Thiamethoxam	82.9		P	40 - 150
Tolfenpyrad	53.6		P	30 - 150
Triclopyr	82.2		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P430154

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P430415

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

Reference Method: SM 2540 D-2015

Batch ID: P430220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	96.4		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P430159

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P429963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P429881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408424	Calcium	102		P	80 - 120
2408424	Iron	106	107	P/P	80 - 120
2408424	Magnesium	104		P	80 - 120
2408424	Potassium	104	107	P/P	80 - 120
2408424	Sodium	99.7		P	80 - 120
2408424	Strontium	102	102	P/P	80 - 120
2408424	Tin	104	104	P/P	80 - 120
2408424	Titanium	104	104	P/P	80 - 120
2408424	Vanadium	104	103	P/P	80 - 120
2408424	Zinc	104	103	P/P	80 - 120
2409299	Calcium	101		P	80 - 120
2409299	Iron	106		P	80 - 120
2409299	Magnesium	102		P	80 - 120
2409299	Potassium	101		P	80 - 120
2409299	Sodium	97.8		P	80 - 120
2409299	Strontium	103		P	80 - 120
2409299	Tin	104		P	80 - 120
2409299	Titanium	105		P	80 - 120
2409299	Vanadium	105		P	80 - 120
2409299	Zinc	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408423	Manganese	96.2	94.9	P/P	80 - 120
2408424	Aluminum	98.6	98.2	P/P	80 - 120
2408424	Antimony	102	101	P/P	80 - 120
2408424	Arsenic	100	100	P/P	80 - 120
2408424	Barium	101	101	P/P	80 - 120
2408424	Beryllium	94.1	93.0	P/P	80 - 120
2408424	Boron	102	102	P/P	80 - 120
2408424	Cadmium	102	100	P/P	80 - 120
2408424	Chromium	95.5	95.1	P/P	80 - 120
2408424	Cobalt	99.5	98.6	P/P	80 - 120
2408424	Copper	96.3	96.2	P/P	80 - 120
2408424	Lead	103	102	P/P	80 - 120
2408424	Molybdenum	100	100	P/P	80 - 120
2408424	Nickel	95.7	95.2	P/P	80 - 120
2408424	Selenium	99.1	99.4	P/P	80 - 120
2408424	Silver	104	102	P/P	80 - 120
2408424	Thallium	101	102	P/P	80 - 120
2409299	Aluminum	96.8		P	80 - 120
2409299	Antimony	101		P	80 - 120
2409299	Arsenic	97.9		P	80 - 120
2409299	Barium	100		P	80 - 120
2409299	Beryllium	92.8		P	80 - 120
2409299	Boron	102		P	80 - 120
2409299	Cadmium	100		P	80 - 120
2409299	Chromium	94.4		P	80 - 120
2409299	Cobalt	98.2		P	80 - 120
2409299	Copper	94.4		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409299	Lead	103		P	80 - 120
2409299	Manganese	93.7		P	80 - 120
2409299	Molybdenum	98.8		P	80 - 120
2409299	Nickel	94.7		P	80 - 120
2409299	Selenium	97.4		P	80 - 120
2409299	Silver	103		P	80 - 120
2409299	Thallium	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P430019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409274	Chloride	99.5		P	90 - 110
2409324	Chloride	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P430023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409274	Sulfate	93.6		P	90 - 110
2409324	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P429971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409263	Ammonia-N	96.4	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P430038

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409277	Kjeldahl Nitrogen	92.2	97.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P430280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409287	NO2NO3-N	96.8	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P429863

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409264	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P429830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409243	O-Phosphate-P	99.7	99.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P429806

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409296	Acesulfame K	64.2	64.5	P/P	40 - 150
2409296	AMPA	70.0	69.5	P/P	40 - 150
2409296	Endothall	91.0	91.8	P/P	40 - 150
2409296	Glufosinate	72.5	80.5	P/P	40 - 150
2409296	Glyphosate	73.9	74.8	P/P	40 - 150
2409296	Sucralose	101	114	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P429889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409223	2,4-D	89.6	105	P/P	40 - 150
2409223	2,4,5-T	108	106	P/P	40 - 150
2409223	Acetaminophen	92.6	101	P/P	30 - 150
2409223	Acetamiprid	65.4	65.7	P/P	40 - 150
2409223	Afidopyropen	80.0	79.9	P/P	30 - 150
2409223	Benzovindiflupyr	73.1	84.9	P/P	40 - 150
2409223	Carbamazepine	68.2	75.8	P/P	40 - 150
2409223	Clothianidin	89.1	99.6	P/P	40 - 150
2409223	Dinotefuran	62.8	68.7	P/P	40 - 150
2409223	Diuron	63.0	77.6	P/P	40 - 150
2409223	Fenuron	52.6	61.5	P/P	40 - 150
2409223	Hydrocodone	52.1	59.1	P/P	40 - 150
2409223	Ibuprofen	62.2	54.0	P/P	40 - 150
2409223	Imidacloprid	109	119	P/P	40 - 150
2409223	Linuron	65.4	69.8	P/P	40 - 150
2409223	Mandestrobin	72.6	83.7	P/P	40 - 150
2409223	MCCP	103	120	P/P	40 - 150
2409223	Naproxen	64.6	84.8	P/P	40 - 150
2409223	Primidone	83.4	90.5	P/P	40 - 150
2409223	Pyraclostrobin	77.6	80.8	P/P	40 - 150
2409223	Silvex	109	115	P/P	40 - 150
2409223	Thiamethoxam	75.5	88.2	P/P	40 - 150
2409223	Tolfenpyrad	49.5	55.9	P/P	30 - 150
2409223	Triclopyr	114	98.9	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P430159

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409306	Fluoride	104	103	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409277	Organic Carbon	96.0	96.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P429836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409231	Color (true)	1.22	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409133	Turbidity	13.5	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408424	Calcium	1.54	Spike	P	0 - 20
2408424	Iron	1.27	Spike	P	0 - 20
2408424	Magnesium	0.871	Spike	P	0 - 20
2408424	Potassium	1.67	Spike	P	0 - 20
2408424	Sodium	0.0913	Spike	P	0 - 20
2408424	Strontium	0.293	Spike	P	0 - 20
2408424	Tin	0.813	Spike	P	0 - 20
2408424	Titanium	0.0566	Spike	P	0 - 20
2408424	Vanadium	1.08	Spike	P	0 - 20
2408424	Zinc	0.862	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408423	Manganese	1.21	Spike	P	0 - 20
2408424	Aluminum	0.393	Spike	P	0 - 20
2408424	Antimony	0.504	Spike	P	0 - 20
2408424	Arsenic	0.0488	Spike	P	0 - 20
2408424	Barium	0.291	Spike	P	0 - 20
2408424	Beryllium	1.25	Spike	P	0 - 20
2408424	Boron	0.115	Spike	P	0 - 20
2408424	Cadmium	1.78	Spike	P	0 - 20
2408424	Chromium	0.437	Spike	P	0 - 20
2408424	Cobalt	0.814	Spike	P	0 - 20
2408424	Copper	0.120	Spike	P	0 - 20
2408424	Lead	1.59	Spike	P	0 - 20
2408424	Molybdenum	0.293	Spike	P	0 - 20
2408424	Nickel	0.568	Spike	P	0 - 20
2408424	Selenium	0.310	Spike	P	0 - 20
2408424	Silver	1.34	Spike	P	0 - 20
2408424	Thallium	0.868	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409274	Chloride	0.0348	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409274	Sulfate	0.498	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409263	Ammonia-N	2.43	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409277	Kjeldahl Nitrogen	3.38	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409287	NO2NO3-N	0.372	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409264	Total-P	0.878	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409243	O-Phosphate-P	0.0749	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P429806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409296	Acesulfame K	0.377	Spike	P	0 - 30
2409296	AMPA	0.649	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P429806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409296	Endothall	0.892	Spike	P	0 - 30
2409296	Glufosinate	10.4	Spike	P	0 - 30
2409296	Glyphosate	0.971	Spike	P	0 - 30
2409296	Sucralose	12.0	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P429889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409223	2,4-D	10.8	Spike	P	0 - 30
2409223	2,4,5-T	1.89	Spike	P	0 - 30
2409223	Acetaminophen	9.13	Spike	P	0 - 30
2409223	Acetamiprid	0.421	Spike	P	0 - 30
2409223	Afidopyropen	0.122	Spike	P	0 - 30
2409223	Bentazon	7.23	Spike	P	0 - 30
2409223	Benzovindiflupyr	14.9	Spike	P	0 - 30
2409223	Carbamazepine	9.16	Spike	P	0 - 30
2409223	Clothianidin	11.2	Spike	P	0 - 30
2409223	Dinotefuran	8.29	Spike	P	0 - 30
2409223	Diuron	19.3	Spike	P	0 - 30
2409223	Fenuron	15.6	Spike	P	0 - 30
2409223	Fluridone	4.86	Spike	P	0 - 30
2409223	Hydrocodone	12.7	Spike	P	0 - 30
2409223	Ibuprofen	14.3	Spike	P	0 - 30
2409223	Imazapyr	10.6	Spike	P	0 - 30
2409223	Imidacloprid	7.49	Spike	P	0 - 30
2409223	Linuron	6.55	Spike	P	0 - 30
2409223	Mandestrobin	14.2	Spike	P	0 - 30
2409223	MCPP	14.4	Spike	P	0 - 30
2409223	Naproxen	27.1	Spike	P	0 - 30
2409223	Primidone	8.15	Spike	P	0 - 30
2409223	Pyraclostrobin	4.03	Spike	P	0 - 30
2409223	Silvex	5.04	Spike	P	0 - 30
2409223	Thiamethoxam	15.5	Spike	P	0 - 30
2409223	Tolfenpyrad	12.3	Spike	P	0 - 30
2409223	Triclopyr	14.0	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P430154

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409306	Total Alkalinity	1.10	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P430415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409207	TDS	3.25	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P430159

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409306	Fluoride	0.480	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P429963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409277	Organic Carbon	0.610	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2409296
Field Sample ID: G1CE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.4	P	30 - 160
EPA 8321B	Diuron-d6	55.4	P	30 - 160
EPA 8321B	Endothall-d6	94.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.1	P	30 - 160
EPA 8321B	Primidone-d5	63.3	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160

Lab Sample ID: 2409298
Field Sample ID: G1CE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	79.3	P	20 - 200
EPA 8270E	Simazine-d10	84.4	P	62 - 142
EPA 8270E	Terbufos-d10	69.4	P	58 - 132
EPA 8270E	Terphenyl-d14	94.3	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119142

Included Lab Sample IDs: 2409288

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

Reference Method: DEP SOP: NU-094-1

Run ID: A119145

Included Lab Sample IDs: 2409286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119146

Included Lab Sample IDs: 2409286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	98.0	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A119190

Included Lab Sample IDs: 2409296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	114	116	P/P	60 - 160
Endothall	83.6	83.7	P/P	60 - 160
Glufosinate	102	98.6	P/P	60 - 160
Glyphosate	115	117	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A119191

Included Lab Sample IDs: 2409296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.4	94.7	P/P	60 - 160
Sucralose	116	92.9	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119193

Included Lab Sample IDs: 2409287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119202

Included Lab Sample IDs: 2409297

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.8	97.6	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	97.9	98.5	P/P	90 - 110
Barium	100	99.5	P/P	90 - 110
Beryllium	96.7	96.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119202

Included Lab Sample IDs: 2409297

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	102	99.3	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Chromium	97.5	96.8	P/P	90 - 110
Cobalt	99.8	99.8	P/P	90 - 110
Copper	96.0	95.7	P/P	90 - 110
Lead	104	102	P/P	90 - 110
Molybdenum	97.6	98.6	P/P	90 - 110
Nickel	96.7	96.5	P/P	90 - 110
Selenium	99.5	100	P/P	90 - 110
Silver	102	103	P/P	90 - 110
Thallium	104	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119211

Included Lab Sample IDs: 2409286

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

Reference Method: SM 5310 B-2011

Run ID: A119213

Included Lab Sample IDs: 2409287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	96.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119214

Included Lab Sample IDs: 2409287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.8	98.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119236

Included Lab Sample IDs: 2409297

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Manganese	98.0	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119275

Included Lab Sample IDs: 2409287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.0	95.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A119279
Included Lab Sample IDs: 2409296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.4	98.9	P/P	50 - 150
2,4,5-T	87.0	97.4	P/P	50 - 150
Acetaminophen	98.8	99.1	P/P	60 - 160
Acetamiprid	105	107	P/P	50 - 150
Afidopyropen	98.0	108	P/P	50 - 150
Bentazon	128	142	P/P	50 - 160
Benzovindiflupyr	98.3	102	P/P	50 - 150
Carbamazepine	99.1	108	P/P	60 - 150
Clothianidin	106	104	P/P	60 - 150
Dinotefuran	110	106	P/P	50 - 150
Diuron	117	117	P/P	60 - 160
Fenuron	102	102	P/P	60 - 150
Fluridone	113	128	P/P	60 - 160
Hydrocodone	111	114	P/P	60 - 150
Ibuprofen	62.4	99.8	P/P	50 - 160
Imazapyr	100	102	P/P	50 - 150
Imidacloprid	97.6	98.3	P/P	60 - 150
Linuron	99.5	103	P/P	60 - 150
Mandestrobin	99.0	99.8	P/P	50 - 150
MCPP	91.7	97.5	P/P	50 - 150
Naproxen	62.9	83.6	P/P	50 - 160
Primidone	102	97.4	P/P	60 - 150
Pyraclostrobin	107	105	P/P	60 - 150
Silvex	87.5	103	P/P	50 - 150
Thiamethoxam	106	107	P/P	50 - 150
Tolfenpyrad	98.8	97.8	P/P	60 - 150
Triclopyr	86.1	82.7	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A119297
Included Lab Sample IDs: 2409298

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	98.7		P	80 - 120
Avobenzene	101		P	80 - 120
Dechlorane 602	98.1		P	80 - 120
Dechlorane 603	98.8		P	80 - 120
Dechlorane Plus	98.0		P	80 - 120
Hexabromobenzene	98.8		P	80 - 120
Octinoxate	97.4		P	80 - 120
Oxybenzone	95.9		P	80 - 120
PBB-153	100		P	80 - 120
PBDE-47	96.8		P	80 - 120
PBDE-99	102		P	80 - 120
Pentabromotoluene	99.0		P	80 - 120
Tetradecachloro-m-terphenyl	109		P	80 - 120
Tri-o-cresyl Phosphate	98.5		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	85.0		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	98.0		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	96.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A119302

Included Lab Sample IDs: 2409286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.3	95.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A119302

Included Lab Sample IDs: 2409286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119360

Included Lab Sample IDs: 2409287

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119423

Included Lab Sample IDs: 2409297

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	103	P/P	90 - 110
Iron	105	106	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Potassium	102	104	P/P	90 - 110
Sodium	97.6	98.1	P/P	90 - 110
Strontium	101	102	P/P	90 - 110
Tin	105	103	P/P	90 - 110
Titanium	103	104	P/P	90 - 110
Vanadium	102	103	P/P	90 - 110
Zinc	103	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119425

Included Lab Sample IDs: 2409298

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	85.0		P	80 - 120
Alachlor	93.1		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	88.2		P	80 - 120
Atrazine Desethyl	89.5		P	80 - 120
Azinphos Methyl	86.3		P	80 - 120
Azoxystrobin	97.2		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	85.4		P	80 - 120
Carbophenothion	104		P	80 - 120
Carfentrazone Ethyl	95.9		P	80 - 120
Chlorfenapyr	86.2		P	80 - 120
Chlorpyrifos Ethyl	87.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119425
Included Lab Sample IDs: 2409298

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlorpyrifos Methyl	103		P	80 - 120
Coumaphos	100		P	80 - 120
Cyanazine	95.7		P	80 - 120
Cyprodinil	102		P	80 - 120
Demeton	91.7		P	80 - 120
Diazinon	110		P	80 - 120
Difenoconazole	98.5		P	80 - 120
Dimethenamid	103		P	80 - 120
Dimethomorph	88.4		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	100		P	80 - 120
Ethion	92.7		P	80 - 120
Ethoprop	100		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	85.8		P	80 - 120
Fenbuconazole	87.0		P	80 - 120
Fipronil	87.8		P	80 - 120
Fipronil Desulfinyl	99.4		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	105		P	80 - 120
Fluazifop-P-butyl	106		P	80 - 120
Fludioxonil	97.4		P	80 - 120
Flumioxazin	102		P	80 - 120
Flutolanil	98.9		P	80 - 120
Fluxapyroxad	102		P	80 - 120
Fonofos	105		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	93.1		P	80 - 120
Iprodione	93.8		P	80 - 120
Loratadine	88.0		P	80 - 120
Malathion	90.7		P	80 - 120
Metaxyl	89.0		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	96.8		P	80 - 120
Mevinphos	87.2		P	80 - 120
Molinate	88.5		P	80 - 120
Myclobutanil	87.8		P	80 - 120
Naled	96.0		P	80 - 120
Napropamide	96.3		P	80 - 120
Norflurazon	98.8		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	93.2		P	80 - 120
Parathion Ethyl	96.0		P	80 - 120
Parathion Methyl	95.6		P	80 - 120
Pendimethalin	103		P	80 - 120
Phenytol	100		P	80 - 120
Phorate	99.6		P	80 - 120
Prodiamine	99.2		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119425
Included Lab Sample IDs: 2409298

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pronamide	103		P	80 - 120
Propanil	111		P	80 - 120
Propargite	98.6		P	80 - 120
Propiconazole	86.1		P	80 - 120
Pyraflufen Ethyl	99.0		P	80 - 120
Pyridaben	94.7		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	82.2		P	80 - 120
Stirophos	88.5		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	105		P	80 - 120
Terbuthylazine	95.6		P	80 - 120
Thiobencarb	103		P	80 - 120
Triadimefon	98.5		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			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101					1.22	
EPA 180.1 Rev. 2.0	Turbidity	97.5					13.5	
EPA 200.7 Rev. 4.4	Calcium	101	102	101				1.54
	Iron	106	106	107	106			1.27
	Magnesium	102	104	102				0.871
	Potassium	103	104	107	101			1.67
	Sodium	98.1	97.8	99.7				0.0913
	Strontium	100	102	102	103			0.293
	Tin	105	104	104	104			0.813
	Titanium	102	104	104	105			0.0566
	Vanadium	101	104	103	105			1.08
	Zinc	101	104	103	105			0.862
EPA 200.8 Rev. 5.4	Aluminum	96.8	98.6	98.2	96.8			0.393
	Antimony	100	102	101	101			0.504
	Arsenic	98.6	100	100	97.9			0.0488
	Barium	102	101	101	100			0.291
	Beryllium	94.6	94.1	93.0	92.8			1.25
	Boron	101	102	102	102			0.115
	Cadmium	99.3	102	100	100			1.78
	Chromium	93.3	95.5	95.1	94.4			0.437
	Cobalt	99.4	99.5	98.6	98.2			0.814
	Copper	96.4	96.3	96.2	94.4			0.120
	Lead	101	103	102	103			1.59
	Manganese	96.4	96.2	94.9	93.7			1.21
	Molybdenum	97.5	100	100	98.8			0.293
	Nickel	95.9	95.7	95.2	94.7			0.568
	Selenium	98.7	99.1	99.4	97.4			0.310
	Silver	102	104	102	103			1.34
	Thallium	97.2	101	102	100			0.868
EPA 300.0 Rev. 2.1	Chloride	104	99.5	107			0.0348	
	Sulfate	103	93.6	104			0.498	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	96.4	99.2				2.43
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	92.2	97.8				3.38
EPA 353.2 Rev. 2.0	NO2NO3-N	102	96.8	96.3				0.372
EPA 365.1 Rev. 2.0	Total-P	102	103	102				0.878
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	99.7	99.6				0.0749
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	84.1						
	Acetochlor	81.7						
	Alachlor	99.5						
	Ametryn	105						
	Atrazine	83.2						
	Atrazine Desethyl	98.2						
	Avobenzone	157						
	Azinphos Methyl	101						
	Azoxystrobin	103						
	Bromacil	105						
	Butylate	73.8						
	Caffeine	82.1						
	Carbophenothion	105						
	Carfentrazone Ethyl	114						
	Chlorfenapyr	86.1						
	Chlorpyrifos Ethyl	94.4						

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	100				
	Coumaphos	72.3				
	Cyanazine	113				
	Cyprodinil	116				
	Dechlorane 602	80.1				
	Dechlorane 603	118				
	Dechlorane Plus	93.0				
	Demeton	79.0				
	Diazinon	102				
	Difenoconazole	77.1				
	Dimethenamid	100				
	Dimethomorph	169				
	Disulfoton	102				
	Dithiopyr	102				
	EPTC	71.1				
	Ethion	103				
	Ethoprop	92.8				
	Etridiazole	72.4				
	Fenamiphos	94.9				
	Fenbuconazole	58.8				
	Fipronil	99.9				
	Fipronil Desulfinyl	97.7				
	Fipronil Sulfide	104				
	Fipronil Sulfone	91.9				
	Fluazifop-P-butyl	71.0				
	Fludioxonil	83.2				
	Flumioxazin	98.1				
	Flutolanil	84.2				
	Fluxapyroxad	85.7				
	Fonofos	102				
	Hexabromobenzene	86.7				
	Hexazinone	95.1				
	Imazalil	79.6				
	Iprodione	76.5				
	Loratadine	106				
	Malathion	93.4				
	Metalaxyl	90.5				
	Metolachlor	113				
	Metribuzin	97.4				
	Mevinphos	83.7				
	Molinate	66.1				
	Myclobutanil	96.8				
	Naled	38.2				
	Napropamide	85.9				
	Norflurazon	86.1				
	Octinoxate	118				
	Oxadiazon	90.6				
	Oxybenzone	111				
	Oxyfluorfen	113				
	Parathion Ethyl	92.6				
	Parathion Methyl	101				
	PBB-153	111				
	PBDE-47	97.2				
	PBDE-99	69.4				

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Pendimethalin	141					
	Pentabromotoluene	108					
	Phenytoin	40.3					
	Phorate	120					
	Prodiamine	67.4					
	Prometon	99.0					
	Prometryn	121					
	Pronamide	111					
	Propanil	92.4					
	Propargite	70.9					
	Propiconazole	79.7					
	Pyraflufen Ethyl	68.2					
	Pyridaben	83.7					
	Pyriproxyfen	85.0					
	Simazine	88.4					
	Stirophos	82.9					
	Sulfentrazone	63.3					
	Tebuconazole	62.8					
	Terbufos	103					
	Terbuthylazine	85.0					
	Tetradecachloro-m-terphenyl	107					
	Thiobencarb	103					
	Tri-o-cresyl Phosphate	125					
	Triadimefon	93.0					
	Tris(1-chloro-2-propyl) phosphate (TCPP)	103					
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111					
	Tris(2-chloroethyl) phosphate (TCEP)	119					
EPA 8321B	2,4-D	84.3	89.6	105			10.8
	2,4,5-T	89.3	108	106			1.89
	Acesulfame K	101	64.2	64.5			0.377
	Acetaminophen	82.7	92.6	101			9.13
	Acetamiprid	70.0	65.4	65.7			0.421
	Afidopyropen	62.5	80.0	79.9			0.122
	AMPA	109	70.0	69.5			0.649
	Bentazon	120					7.23
	Benzovindiflupyr	76.4	73.1	84.9			14.9
	Carbamazepine	76.1	68.2	75.8			9.16
	Clothianidin	80.8	89.1	99.6			11.2
	Dinotefuran	88.8	62.8	68.7			8.29
	Diuron	75.8	63.0	77.6			19.3
	Endothall	82.9	91.0	91.8			0.892
	Fenuron	81.6	52.6	61.5			15.6
	Fluridone	77.1					4.86
	Glufosinate	105	72.5	80.5			10.4
	Glyphosate	121	73.9	74.8			0.971
	Hydrocodone	86.6	52.1	59.1			12.7
	Ibuprofen	75.7	62.2	54.0			14.3
	Imazapyr	83.8					10.6
	Imidacloprid	80.5	109	119			7.49
	Linuron	75.8	65.4	69.8			6.55
	Mandestrobin	75.4	72.6	83.7			14.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8321B	MCP	96.5	103	120			14.4
	Naproxen	74.1	64.6	84.8			27.1
	Primidone	83.1	83.4	90.5			8.15
	Pyraclostrobin	76.6	77.6	80.8			4.03
	Silvex	100	109	115			5.04
	Sucralose	91.5	101	114			12.0
	Thiamethoxam	82.9	75.5	88.2			15.5
	Tolfenpyrad	53.6	49.5	55.9			12.3
	Triclopyr	82.2	114	98.9			14.0
SM 2320 B-2011	Total Alkalinity	98.8				1.10	
SM 2540 C-2015	TDS	99.4				3.25	
SM 2540 D-2015	TSS	96.4					
SM 4500-F- C-2011	Fluoride	103	104	103			0.480
SM 5310 B-2011	Organic Carbon	98.4	96.0	96.8			0.610

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2409286
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2409286
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2409297
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2409297
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2409286
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2409286
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2409287
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2409287
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2409287
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2409287
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2409288
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2409298
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2409298
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2409296
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2409286
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2409297
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2409286
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2409286
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2409286
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2409287

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	05/12/2023			05/12/2023 14:29	Anna M. Plaviak	2409286
EPA 180.1 Rev. 2.0	05/12/2023			05/12/2023 12:52	Chandler E Cox	2409286
EPA 200.7 Rev. 4.4	05/12/2023	05/15/2023 13:50	George D Taylor	05/26/2023 00:47	McKinley C Carter	2409297
EPA 200.8 Rev. 5.4	05/12/2023	05/15/2023 13:50	George D Taylor	05/17/2023 00:42	Conrad Hartmann	2409297
	05/12/2023	05/15/2023 13:50	George D Taylor	05/17/2023 16:01	Conrad Hartmann	2409297
EPA 300.0 Rev. 2.1	05/12/2023			05/18/2023 05:17	James L Waggeberby	2409286
EPA 350.1 Rev. 2.0	05/12/2023			05/17/2023 11:14	Ping Hua	2409287
EPA 351.2 Rev. 2.0	05/12/2023	05/18/2023 11:54	Simonne.V. Calhoun	05/19/2023 12:12	Samantha L Bates	2409287
EPA 353.2 Rev. 2.0	05/12/2023			05/19/2023 10:42	Anna M. Plaviak	2409287
EPA 365.1 Rev. 2.0	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 13:44	James L Waggeberby	2409287
EPA 365.1 Rev. 2.0 dissolved	05/12/2023			05/12/2023 14:32	Elise M. Gillis	2409288
EPA 8270E	05/12/2023	05/17/2023 08:30	Rasheda Ghaffari	05/19/2023 15:50	Vandana T. Nagar	2409298
	05/12/2023	05/17/2023 08:30	Rasheda Ghaffari	05/20/2023 20:13	Arthur Maknenko	2409298
EPA 8321B	05/12/2023	05/12/2023 12:00	Manjita Shrestha	05/12/2023 22:20	Manjita Shrestha	2409296
	05/12/2023	05/12/2023 12:00	Manjita Shrestha	05/14/2023 02:38	Manjita Shrestha	2409296
	05/12/2023	05/17/2023 08:30	Hoor Shaik	05/17/2023 19:00	Juyoung Kim	2409296
SM 2320 B-2011	05/12/2023			05/20/2023 01:13	Dale L. Simmons	2409286
SM 2340 B-2011	05/12/2023			05/26/2023 00:47	McKinley C Carter	2409297
SM 2540 C-2015	05/12/2023			05/17/2023 16:36	Yijie Li	2409286
SM 2540 D-2015	05/12/2023			05/17/2023 16:36	Yijie Li	2409286
SM 4500-F- C-2011	05/12/2023			05/20/2023 01:13	Dale L. Simmons	2409286
SM 5310 B-2011	05/12/2023			05/16/2023 23:13	Elise M. Gillis	2409287