

Chemical Analysis Report

CEN-DIST-2022-08-19-01

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

Event Description: **Lakes Idyl and Echo LVIs**

Request ID: **RQ-2022-07-11-29**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

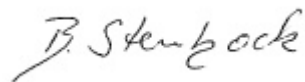
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

For additional information please contact

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

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

Date Certified: 09-SEP-2022 12:36



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 Idyl @ Center

Collection Date/Time: 08/18/2022 11:50

Field ID: G3CE0058

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350892	DEP SOP: NU-094-1	Color (true)	23	A	PCU	P418435	
	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P418412	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P418969	
		Sulfate	15		mg SO4/L	P418972	
	SM 2320 B-2011	Total Alkalinity	38		mg CaCO3/L	P418588	
	SM 2540 C-2011	TDS	108		mg/L	P418838	
	SM 2540 D-2011	TSS	6	I	mg/L	P418686	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P418592	
2350894	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P418746	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P418643	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P418750	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P418516	
	SM 5310 B-2011	Organic Carbon	9.0		mg C/L	P418825	
2350896	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P418398	
2350905	EPA 8321B	2,4-D	0.099		ug/L	P418371	
		Acesulfame K	0.10	U	ug/L	P418299	
		2,4,5-T	0.0040	U	ug/L	P418371	
		AMPA	0.10	U	ug/L	P418299	
		Acetaminophen	0.0080	U	ug/L	P418371	
		Acetamiprid	0.0020	U	ug/L	P418371	
		Endothall	0.25	U	ug/L	P418299	
		Glufosinate	0.10	U	ug/L	P418299	
		Glyphosate	0.10	U	ug/L	P418299	
		Afidopyrophen	0.0020	U	ug/L	P418371	
		Bentazon	0.15		ug/L	P418371	
		Sucralose	0.074		ug/L	P418299	
		Benzovindiflupyr	0.0020	U	ug/L	P418371	
		Carbamazepine	8.0E-04	U	ug/L	P418371	
		Clothianidin	0.0020	U	ug/L	P418371	
		Dinotefuran	0.0020	U	ug/L	P418371	
		Diuron	0.0038	I	ug/L	P418371	
		Fenuron	0.032	U	ug/L	P418371	
		Fluridone	8.0E-04	U	ug/L	P418371	
		Imazapyr	0.012	I	ug/L	P418371	
		Hydrocodone	0.0020	U	ug/L	P418371	
		Ibuprofen	0.080	U	ug/L	P418371	
		Imidacloprid	0.0023	I	ug/L	P418371	
		Linuron	0.0040	U	ug/L	P418371	
		Mandestrobin	0.0020	U	ug/L	P418371	
		MCP	0.0040	U	ug/L	P418371	
		Naproxen	0.0080	U	ug/L	P418371	
		Primidone	0.0040	U	ug/L	P418371	
		Pyraclostrobin	0.0020	U	ug/L	P418371	

Field ID: G3CE0058

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350905	EPA 8321B	Silvex	0.0040	U	ug/L	P418371	
		Thiamethoxam	0.0020	U	ug/L	P418371	
		Tolfenpyrad	0.0020	U	ug/L	P418371	
		Triclopyr	0.0040	U	ug/L	P418371	
2350909	EPA 200.7 Rev. 4.4	Calcium	17.3		mg/L	P418437	
		Iron	30	U	ug/L	P418437	
		Magnesium	2.80		mg/L	P418437	
		Potassium	4.7		mg/L	P418437	
		Sodium	12.3		mg/L	P418437	
		Strontium	46.1		ug/L	P418437	
		Tin	3.4	I	ug/L	P418437	
		Titanium	0.75	U	ug/L	P418437	
		Vanadium	2.0	U	ug/L	P418437	
		Zinc	5.0	U	ug/L	P418437	
	EPA 200.8 Rev. 5.4	Aluminum	11	I	ug/L	P418437	
		Antimony	0.13	I	ug/L	P418437	
		Arsenic	0.99		ug/L	P418437	
		Barium	17.2		ug/L	P418437	
		Beryllium	0.010	U	ug/L	P418437	
		Boron	44.9		ug/L	P418437	
		Cadmium	0.020	U	ug/L	P418437	
		Chromium	0.40	U	ug/L	P418437	
		Cobalt	0.020	U	ug/L	P418437	
		Copper	0.40	U	ug/L	P418437	
		Lead	0.20	U	ug/L	P418437	
		Manganese	24.2		ug/L	P418437	
		Molybdenum	0.52	I	ug/L	P418437	
		Nickel	0.50	U	ug/L	P418437	
		Selenium	0.20	U	ug/L	P418437	
		Silver	0.010	U	ug/L	P418437	
		Thallium	0.10	U	ug/L	P418437	
		Hardness	54.7		mg/L	P418437	
2350916	SM 2340 B-2011						
	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P418423	
		Acetochlor	0.24	U	ng/L	P418423	
		Octinoxate**	19	U	ng/L	P418423	MS
		Alachlor	0.24	U	ng/L	P418423	
		Avobenzone**	95	U	ng/L	P418423	
		Ametryn	0.86	I	ng/L	P418423	
		Atrazine	16		ng/L	P418423	
		PBDE-47**	3.8	U	ng/L	P418423	
		Atrazine Desethyl	3.8	I	ng/L	P418423	
		PBDE-99**	4.7	U	ng/L	P418423	
		Azinphos Methyl	1.9	U	ng/L	P418423	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P418423	
		Azoxystrobin	1.0	I	ng/L	P418423	

Field ID: G3CE0058

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350916	EPA 8270E	Bromacil	0.47	U	ng/L	P418423	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P418423	
		Butylate	0.38	U	ng/L	P418423	
		Dechlorane Plus**	28	U	ng/L	P418423	
		Caffeine**	20	I	ng/L	P418423	
		Carbophenothion	0.19	U	ng/L	P418423	
		Carfentrazone Ethyl	0.095	U	ng/L	P418423	
		Chlorfenapyr	0.17	U	ng/L	P418423	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P418423	
		Chlorpyrifos Methyl	0.047	U	ng/L	P418423	
		Coumaphos	0.47	U	ng/L	P418423	
		Cyanazine	3.1	U	ng/L	P418423	
		Cyprodinil	0.095	U	ng/L	P418423	
		Demeton	1.4	U	ng/L	P418423	
		Diazinon	0.12	U	ng/L	P418423	
		Difenoconazole	0.57	U	ng/L	P418423	
		Dimethenamid	0.095	U	ng/L	P418423	
		Dimethomorph	0.17	U	ng/L	P418423	
		Disulfoton	0.47	U	ng/L	P418423	
		Dithiopyr	0.36	I	ng/L	P418423	
		EPTC	1.2	U	ng/L	P418423	
		Ethion	0.14	U	ng/L	P418423	
		Ethoprop	0.095	U	ng/L	P418423	
		Etridiazole	0.14	U	ng/L	P418423	
		Fenamiphos	0.47	U	ng/L	P418423	
		Fenbuconazole	0.41	I	ng/L	P418423	
		Fipronil	0.24	U	ng/L	P418423	
		Fipronil Desulfinyl**	0.12	U	ng/L	P418423	
		Fipronil Sulfide	0.14	U	ng/L	P418423	
		Fipronil Sulfone	0.14	U	ng/L	P418423	
		Fluazifop-P-butyl	0.095	U	ng/L	P418423	
		Fludioxonil	0.12	U	ng/L	P418423	
		Flumioxazin	1.7	U	ng/L	P418423	
		Flutolanil	0.095	U	ng/L	P418423	
		Fluxapyroxad	0.095	U	ng/L	P418423	
		Fonofos	0.19	U	ng/L	P418423	
		Hexazinone	0.47	U	ng/L	P418423	
		Imazalil	0.71	U	ng/L	P418423	
		Iprodione	0.57	U	ng/L	P418423	
		Loratadine**	0.095	U	ng/L	P418423	
		Malathion	0.33	U	ng/L	P418423	
		Metalaxyl	0.71	U	ng/L	P418423	
		Metolachlor	1.3		ng/L	P418423	
		Metribuzin	2.4	U	ng/L	P418423	

Field ID: G3CE0058

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350916	EPA 8270E	Mevinphos	0.99	U	ng/L	P418423	
		Molinate	0.28	U	ng/L	P418423	
		Myclobutanil	0.24	U	ng/L	P418423	
		Naled	1.4	U	ng/L	P418423	
		Napropamide	0.38	U	ng/L	P418423	
		Norflurazon	0.47	U	ng/L	P418423	
		Oxadiazon	0.51	I	ng/L	P418423	
		Oxyfluorfen	0.14	U	ng/L	P418423	
		Parathion Ethyl	0.24	U	ng/L	P418423	
		Parathion Methyl	0.52	U	ng/L	P418423	
		Pendimethalin	0.95	U	ng/L	P418423	
		Phenytol**	3.3	U	ng/L	P418423	MS, RPD
		Phorate	0.50	U	ng/L	P418423	
		Prodiamine	0.17	U	ng/L	P418423	
		Prometon	0.85	U	ng/L	P418423	
		Prometryn	0.19	U	ng/L	P418423	
		Pronamide	0.14	U	ng/L	P418423	
		Propanil	0.12	U	ng/L	P418423	
		Propargite	1.4	U	ng/L	P418423	MS
		Propiconazole	0.87	I	ng/L	P418423	
		Pyraflufen Ethyl	0.24	U	ng/L	P418423	
		Pyridaben	0.43	U	ng/L	P418423	
		Pyriproxyfen	0.12	U	ng/L	P418423	
		Simazine	0.82	I	ng/L	P418423	
		Stirophos	0.12	U	ng/L	P418423	MS
		Sulfentrazone	0.47	U	ng/L	P418423	
		Tebuconazole	0.81	I	ng/L	P418423	
		Terbufos	0.095	U	ng/L	P418423	
		Terbutylazine	0.40	U	ng/L	P418423	
		Thiobencarb	0.57	U	ng/L	P418423	
		Triadimefon	0.24	U	ng/L	P418423	

Ref. Method and Comment:

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

Sample Location: FB

Collection Date/Time: 08/18/2022 12:06

Field ID: FB_08182022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350898	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P418435	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P418412	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P418970	
		Sulfate	0.20	U	mg SO4/L	P418973	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P418588	
	SM 2540 C-2011	TDS	15	U	mg/L	P418837	
	SM 2540 D-2011	TSS	2	U	mg/L	P418685	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P418592	
2350899	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P418691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P418643	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P418752	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P418672	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P418825	
2350900	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P418398	
2350907	EPA 8321B	2,4-D	0.0020	U	ug/L	P418568	
		Acesulfame K	0.10	U	ug/L	P418299	
		2,4,5-T	0.0040	U	ug/L	P418568	
		AMPA	0.10	U	ug/L	P418299	
		Acetaminophen	0.0080	U	ug/L	P418568	
		Acetamiprid	0.0020	U	ug/L	P418568	
		Endothall	0.25	U	ug/L	P418299	
		Glufosinate	0.10	U	ug/L	P418299	
		Glyphosate	0.10	U	ug/L	P418299	
		Afidopyropen	0.0020	U	ug/L	P418568	
		Bentazon	8.0E-04	U	ug/L	P418568	
		Sucralose	0.010	U	ug/L	P418299	
		Benzovindiflupyr	0.0020	U	ug/L	P418568	
		Carbamazepine	8.0E-04	U	ug/L	P418568	
		Clothianidin	0.0020	U	ug/L	P418568	
		Dinotefuran	0.0020	U	ug/L	P418568	
		Diuron	0.0020	U	ug/L	P418568	
		Fenuron	0.032	U	ug/L	P418568	
		Fluridone	8.0E-04	U	ug/L	P418568	
		Imazapyr	0.0040	U	ug/L	P418568	
		Hydrocodone	0.0020	U	ug/L	P418568	
		Ibuprofen	0.080	U	ug/L	P418568	
		Imidacloprid	0.0020	U	ug/L	P418568	
		Linuron	0.0040	U	ug/L	P418568	
		Mandestrobin	0.0020	U	ug/L	P418568	
		MCPP	0.0040	U	ug/L	P418568	
		Naproxen	0.0080	U	ug/L	P418568	
		Primidone	0.0040	U	ug/L	P418568	
		Pyraclostrobin	0.0020	U	ug/L	P418568	

Field ID: FB_08182022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350907	EPA 8321B	Silvex	0.0040	U	ug/L	P418568	
		Thiamethoxam	0.0020	U	ug/L	P418568	
		Tolfenpyrad	0.0020	U	ug/L	P418568	
		Triclopyr	0.0040	U	ug/L	P418568	
2350911	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P418437	
		Iron	30	U	ug/L	P418437	
		Magnesium	0.040	U	mg/L	P418437	
		Potassium	0.30	U	mg/L	P418437	
		Sodium	0.50	U	mg/L	P418437	
		Strontium	2.0	U	ug/L	P418437	
		Tin	3.0	U	ug/L	P418437	
		Titanium	0.75	U	ug/L	P418437	
		Vanadium	2.0	U	ug/L	P418437	
		Zinc	5.0	U	ug/L	P418437	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P418437	
		Antimony	0.050	U	ug/L	P418437	
		Arsenic	0.050	U	ug/L	P418437	
		Barium	0.20	U	ug/L	P418437	
		Beryllium	0.010	U	ug/L	P418437	
		Boron	2.0	U	ug/L	P418437	
		Cadmium	0.020	U	ug/L	P418437	
		Chromium	0.40	U	ug/L	P418437	
		Cobalt	0.020	U	ug/L	P418437	
		Copper	0.40	U	ug/L	P418437	
	SM 2340 B-2011	Lead	0.20	U	ug/L	P418437	
		Manganese	0.10	U	ug/L	P418437	
		Molybdenum	0.15	U	ug/L	P418437	
		Nickel	0.50	U	ug/L	P418437	
		Selenium	0.20	U	ug/L	P418437	
		Silver	0.010	U	ug/L	P418437	
		Thallium	0.10	U	ug/L	P418437	
		Hardness	0.35	U	mg/L	P418437	

Ref. Method and Comment:

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

Sample Location: Lake Echo @ Center

Collection Date/Time: 08/18/2022 13:09

Field ID: G3CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350893	DEP SOP: NU-094-1	Color (true)	7.1		PCU	P418435	
	EPA 180.1 Rev. 2.0	Turbidity	0.80	I	NTU	P418412	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P418970	
		Sulfate	24		mg SO4/L	P418973	
	SM 2320 B-2011	Total Alkalinity	50	A	mg CaCO3/L	P418588	
	SM 2540 C-2011	TDS	122		mg/L	P418838	
	SM 2540 D-2011	TSS	3	I	mg/L	P418686	
	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P418592	
2350895	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P418682	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P418643	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P418750	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P418515	
	SM 5310 B-2011	Organic Carbon	4.7		mg C/L	P418825	
2350897	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P418398	
2350906	EPA 8321B	2,4-D	0.013		ug/L	P418568	
		Acesulfame K	0.10	U	ug/L	P418299	
		2,4,5-T	0.0040	U	ug/L	P418568	
		AMPA	0.10	U	ug/L	P418299	
		Acetaminophen	0.0080	U	ug/L	P418568	
		Acetamiprid	0.0020	U	ug/L	P418568	
		Endothall	0.25	U	ug/L	P418299	
		Glufosinate	0.10	U	ug/L	P418299	
		Glyphosate	0.10	U	ug/L	P418299	
		Afidopyropen	0.0020	U	ug/L	P418568	
		Bentazon	0.0015	I	ug/L	P418568	
		Sucralose	0.88		ug/L	P418299	
		Benzovindiflupyr	0.0020	U	ug/L	P418568	
		Carbamazepine	8.0E-04	U	ug/L	P418568	
		Clothianidin	0.0020	U	ug/L	P418568	
		Dinotefuran	0.0020	U	ug/L	P418568	
		Diuron	0.0023	I	ug/L	P418568	
		Fenuron	0.032	U	ug/L	P418568	
		Fluridone	0.0078		ug/L	P418568	
		Imazapyr	0.0051	I	ug/L	P418568	
		Hydrocodone	0.0020	U	ug/L	P418568	
		Ibuprofen	0.080	U	ug/L	P418568	
		Imidacloprid	0.0020	U	ug/L	P418568	
		Linuron	0.0040	U	ug/L	P418568	
		Mandestrobin	0.0020	U	ug/L	P418568	
		MCP	0.0040	U	ug/L	P418568	
		Naproxen	0.0080	U	ug/L	P418568	
		Primidone	0.0078	I	ug/L	P418568	
		Pyraclostrobin	0.0020	U	ug/L	P418568	

Field ID: G3CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350906	EPA 8321B	Silvex	0.0040	U	ug/L	P418568	
		Thiamethoxam	0.0020	U	ug/L	P418568	
		Tolfenpyrad	0.0020	U	ug/L	P418568	
		Triclopyr	0.0040	U	ug/L	P418568	
2350910	EPA 200.7 Rev. 4.4	Calcium	24.6		mg/L	P418437	
		Iron	30	U	ug/L	P418437	
		Magnesium	4.01		mg/L	P418437	
		Potassium	3.9		mg/L	P418437	
		Sodium	12.2		mg/L	P418437	
		Strontium	45.0		ug/L	P418437	
		Tin	4.1	I	ug/L	P418437	
		Titanium	0.75	U	ug/L	P418437	
		Vanadium	2.0	U	ug/L	P418437	
		Zinc	5.0	U	ug/L	P418437	
	EPA 200.8 Rev. 5.4	Aluminum	36		ug/L	P418437	
		Antimony	0.28		ug/L	P418437	
		Arsenic	1.71		ug/L	P418437	
		Barium	14.6		ug/L	P418437	
		Beryllium	0.010	U	ug/L	P418437	
		Boron	57.2		ug/L	P418437	
		Cadmium	0.020	U	ug/L	P418437	
		Chromium	0.40	U	ug/L	P418437	
		Cobalt	0.020	U	ug/L	P418437	
		Copper	1.58		ug/L	P418437	
		Lead	0.20	U	ug/L	P418437	
		Manganese	8.59		ug/L	P418437	
		Molybdenum	0.64		ug/L	P418437	
		Nickel	0.50	U	ug/L	P418437	
		Selenium	0.20	U	ug/L	P418437	
		Silver	0.010	U	ug/L	P418437	
		Thallium	0.10	U	ug/L	P418437	
		Hardness	77.9		mg/L	P418437	
2350917	SM 2340 B-2011	Oxybenzone**	9.6	U	ng/L	P418423	
	EPA 8270E	Acetochlor	0.24	U	ng/L	P418423	
		Octinoxate**	19	U	ng/L	P418423	MS
		Alachlor	0.24	U	ng/L	P418423	
		Avobenzone**	96	U	ng/L	P418423	
		Ametryn	0.57	U	ng/L	P418423	
		Atrazine	6.4		ng/L	P418423	
		PBDE-47**	3.8	U	ng/L	P418423	
		Atrazine Desethyl	1.4	U	ng/L	P418423	
		PBDE-99**	4.8	U	ng/L	P418423	
		Azinphos Methyl	1.9	U	ng/L	P418423	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P418423	
		Azoxystrobin	1.1	I	ng/L	P418423	

Field ID: G3CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350917	EPA 8270E	Bromacil	4.1		ng/L	P418423	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P418423	
		Butylate	0.38	U	ng/L	P418423	
		Dechlorane Plus**	29	U	ng/L	P418423	
		Caffeine**	180		ng/L	P418423	
		Carbophenothion	0.19	U	ng/L	P418423	
		Carfentrazone Ethyl	0.096	U	ng/L	P418423	
		Chlorfenapyr	0.17	U	ng/L	P418423	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P418423	
		Chlorpyrifos Methyl	0.048	U	ng/L	P418423	
		Coumaphos	0.48	U	ng/L	P418423	
		Cyanazine	3.1	U	ng/L	P418423	
		Cyprodinil	0.096	U	ng/L	P418423	
		Demeton	1.4	U	ng/L	P418423	
		Diazinon	0.12	U	ng/L	P418423	
		Difenoconazole	0.57	U	ng/L	P418423	
		Dimethenamid	0.096	U	ng/L	P418423	
		Dimethomorph	0.17	U	ng/L	P418423	
		Disulfoton	0.48	U	ng/L	P418423	
		Dithiopyr	0.35	I	ng/L	P418423	
		EPTC	1.2	U	ng/L	P418423	
		Ethion	0.14	U	ng/L	P418423	
		Ethoprop	0.096	U	ng/L	P418423	
		Etridiazole	0.14	U	ng/L	P418423	
		Fenamiphos	0.48	U	ng/L	P418423	
		Fenbuconazole	0.12	U	ng/L	P418423	
		Fipronil	0.24	U	ng/L	P418423	
		Fipronil Desulfinyl**	0.23	I	ng/L	P418423	
		Fipronil Sulfide	0.14	U	ng/L	P418423	
		Fipronil Sulfone	0.41	I	ng/L	P418423	
		Fluazifop-P-butyl	0.096	U	ng/L	P418423	
		Fludioxonil	0.12	U	ng/L	P418423	
		Flumioxazin	1.7	U	ng/L	P418423	
		Flutolanil	0.096	U	ng/L	P418423	
		Fluxapyroxad	0.096	U	ng/L	P418423	
		Fonofos	0.19	U	ng/L	P418423	
		Hexazinone	0.48	U	ng/L	P418423	
		Imazalil	0.72	U	ng/L	P418423	
		Iprodione	0.57	U	ng/L	P418423	
		Loratadine**	0.096	U	ng/L	P418423	
		Malathion	0.34	U	ng/L	P418423	
		Metalaxyl	0.72	U	ng/L	P418423	
		Metolachlor	1.6		ng/L	P418423	
		Metribuzin	2.4	U	ng/L	P418423	

Field ID: G3CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350917	EPA 8270E	Mevinphos	1.0	U	ng/L	P418423	
		Molinate	0.29	U	ng/L	P418423	
		Myclobutanil	0.24	U	ng/L	P418423	
		Naled	1.4	U	ng/L	P418423	
		Napropamide	0.38	U	ng/L	P418423	
		Norflurazon	7.6		ng/L	P418423	
		Oxadiazon	1.3		ng/L	P418423	
		Oxyfluorfen	0.14	U	ng/L	P418423	
		Parathion Ethyl	0.24	U	ng/L	P418423	
		Parathion Methyl	0.53	U	ng/L	P418423	
		Pendimethalin	0.96	U	ng/L	P418423	
		Phenytoin**	3.4	U	ng/L	P418423	MS, RPD
		Phorate	0.50	U	ng/L	P418423	
		Prodiamine	0.17	U	ng/L	P418423	
		Prometon	0.86	U	ng/L	P418423	
		Prometryn	0.19	U	ng/L	P418423	
		Pronamide	0.14	U	ng/L	P418423	
		Propanil	0.12	U	ng/L	P418423	
		Propargite	1.4	U	ng/L	P418423	MS
		Propiconazole	0.48	U	ng/L	P418423	
		Pyraflufen Ethyl	0.24	U	ng/L	P418423	
		Pyridaben	0.43	U	ng/L	P418423	
		Pyriproxyfen	0.12	U	ng/L	P418423	
		Simazine	0.48	U	ng/L	P418423	
		Stirophos	0.12	U	ng/L	P418423	MS
		Sulfentrazone	77		ng/L	P418423	
		Tebuconazole	0.48	U	ng/L	P418423	
		Terbufos	0.096	U	ng/L	P418423	
		Terbutylazine	0.41	U	ng/L	P418423	
		Thiobencarb	0.57	U	ng/L	P418423	
		Triadimefon	0.24	U	ng/L	P418423	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P418435

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418412

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418437

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: P418437

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: P418969

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: P418970

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418972

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418973

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418682

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418691

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418746

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418643

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418750

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418752

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418515

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418516

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418672

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418398

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

Reference Method: EPA 8270E
Batch ID: P418423

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	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418423

Component	Result	Code	Units
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418423

Component	Result	Code	Units
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418423

Component	Result	Code	Units
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P418299

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P418299

Component	Result	Code	Units
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P418371

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P418568

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P418568

Component	Result	Code	Units
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P418588

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

Reference Method: SM 2540 C-2011

Batch ID: P418837

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011

Batch ID: P418838

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P418685

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P418686

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P418592

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P418825

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: P418435

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.4		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418412

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418437

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	115		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	110		P	85 - 115
Sodium	106		P	85 - 115
Strontium	107		P	85 - 115
Tin	110		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	105		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418437

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	100		P	85 - 115
Barium	104		P	85 - 115
Beryllium	95.7		P	85 - 115
Boron	99.2		P	85 - 115
Cadmium	98.1		P	85 - 115
Chromium	100		P	85 - 115
Cobalt	99.5		P	85 - 115
Copper	100		P	85 - 115
Lead	92.9		P	85 - 115
Manganese	102		P	85 - 115
Molybdenum	96.6		P	85 - 115
Nickel	101		P	85 - 115
Selenium	99.4		P	85 - 115
Silver	99.4		P	85 - 115
Thallium	98.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418969

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418970

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418972

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418682

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418746

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418750

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418515

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418516

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418672

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P418398

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

Reference Method: EPA 8270E

Batch ID: P418423

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	130		P	50 - 150
Acetochlor	86.5		P	70 - 121
Alachlor	77.6		P	68 - 119
Ametryn	80.2		P	64 - 139
Atrazine	91.1		P	76 - 120
Atrazine Desethyl	61.1		P	44 - 126
Avobenzone	77.6		P	76 - 212
Azinphos Methyl	163		P	43 - 192
Azoxystrobin	99.9		P	36 - 224
Bromacil	62.2		P	52 - 121
Butylate	53.6		P	28 - 91.0
Caffeine	90.1		P	50 - 134
Carbophenothion	86.6		P	56 - 129
Carfentrazone Ethyl	92.2		P	60 - 141
Chlorfenapyr	78.1		P	56 - 115
Chlorpyrifos Ethyl	96.7		P	60 - 118
Chlorpyrifos Methyl	89.9		P	68 - 119
Coumaphos	87.3		P	18 - 250
Cyanazine	83.7		P	61 - 250
Cyprodinil	76.0		P	55 - 145
Dechlorane Plus	136		P	50 - 150
Demeton	75.2		P	30 - 159
Diazinon	89.0		P	70 - 123
Difenoconazole	72.0		P	49 - 204
Dimethenamid	67.4		P	64 - 115
Dimethomorph	89.9		P	12 - 219
Disulfoton	74.1		P	44 - 125
Dithiopyr	76.0		P	64 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418423

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
EPTC	46.8		P	28 - 86.0
Ethion	80.4		P	33 - 125
Ethoprop	90.9		P	64 - 116
Etridiazole	57.5		P	34 - 91.0
Fenamiphos	82.0		P	12 - 127
Fenbuconazole	79.6		P	59 - 151
Fipronil	70.5		P	67 - 129
Fipronil Desulfinyl	77.6		P	65 - 127
Fipronil Sulfide	68.2		P	61 - 116
Fipronil Sulfone	60.5		P	55 - 117
Fluazifop-P-butyl	84.3		P	62 - 127
Fludioxonil	75.6		P	62 - 128
Flumioxazin	116		P	33 - 250
Flutolanil	77.7		P	56 - 127
Fluxapyroxad	68.6		P	45 - 128
Fonofos	75.9		P	62 - 111
Hexazinone	89.2		P	46 - 139
Imazalil	51.3		P	38 - 142
Iprodione	86.1		P	47 - 135
Loratadine	97.2		P	10 - 244
Malathion	95.5		P	61 - 139
Metalaxyl	66.5		P	10 - 119
Metolachlor	77.0		P	65 - 118
Metribuzin	84.1		P	51 - 250
Mevinphos	91.7		P	53 - 121
Molinate	70.4		P	42 - 96.0
Myclobutanil	82.3		P	55 - 128
Naled	67.7		P	10 - 98.0
Napropamide	70.9		P	49 - 121
Norflurazon	70.1		P	61 - 126
Octinoxate	146		P	30 - 159
Oxadiazon	63.9		P	59 - 116
Oxybenzone	110		P	61 - 139
Oxyfluorfen	97.9		P	64 - 137
Parathion Ethyl	84.2		P	70 - 112
Parathion Methyl	118		P	76 - 133
PBDE-47	124		P	50 - 150
PBDE-99	125		P	50 - 150
Pendimethalin	86.8		P	52 - 117
Phenytol	48.3		P	10 - 199
Phorate	67.0		P	48 - 121
Prodiamine	42.7		P	26 - 142
Prometon	63.6		P	43 - 123
Prometryn	70.6		P	66 - 127
Pronamide	88.8		P	75 - 121
Propanil	97.7		P	45 - 150
Propargite	58.3		P	42 - 208
Propiconazole	73.5		P	60 - 125
Pyraflufen Ethyl	78.3		P	70 - 138
Pyridaben	83.8		P	35 - 245
Pyriproxyfen	74.0		P	30 - 149
Simazine	90.0		P	72 - 125

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418423

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Stiropfos	71.9		P	29 - 164
Sulfentrazone	78.6		P	21 - 139
Tebuconazole	45.4		P	10 - 115
Terbufos	96.9		P	60 - 123
Terbuthylazine	91.9		P	72 - 115
Thiobencarb	70.7		P	31 - 139
Tri-o-cresyl Phosphate	116		P	50 - 150
Triadimefon	78.7		P	65 - 116

Reference Method: EPA 8321B
Batch ID: P418299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.5		P	40 - 150
AMPA	112		P	40 - 150
Endothall	120		P	40 - 150
Glufosinate	125		P	40 - 150
Glyphosate	103		P	40 - 150
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P418371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	66.7		P	40 - 150
2,4,5-T	72.5		P	40 - 150
Acetaminophen	88.1		P	30 - 150
Acetamiprid	80.9		P	40 - 150
Afidopyropen	89.0		P	30 - 150
Bentazon	114		P	30 - 150
Benzovindiflupyr	98.5		P	40 - 150
Carbamazepine	117		P	40 - 150
Clothianidin	100		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	86.2		P	40 - 150
Fenuron	113		P	40 - 150
Fluridone	90.2		P	40 - 150
Hydrocodone	99.0		P	40 - 150
Ibuprofen	81.9		P	40 - 150
Imazapyr	86.3		P	40 - 150
Imidacloprid	93.3		P	40 - 150
Linuron	101		P	40 - 150
Mandestrobin	101		P	40 - 150
MCPP	85.7		P	40 - 150
Naproxen	148		P	40 - 150
Primidone	89.4		P	40 - 150
Pyraclostrobin	88.9		P	40 - 150
Silvex	66.8		P	40 - 150
Thiamethoxam	101		P	40 - 150
Tolfenpyrad	40.5		P	30 - 150
Triclopyr	68.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P418568

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	63.3		P	40 - 150
2,4,5-T	60.3		P	40 - 150
Acetaminophen	75.8		P	30 - 150
Acetamiprid	76.4		P	40 - 150
Afidopyropen	64.6		P	30 - 150
Bentazon	98.0		P	30 - 150
Benzovindiflupyr	95.6		P	40 - 150
Carbamazepine	89.5		P	40 - 150
Clothianidin	74.5		P	40 - 150
Dinotefuran	82.1		P	40 - 150
Diuron	91.7		P	40 - 150
Fenuron	90.4		P	40 - 150
Fluridone	90.0		P	40 - 150
Hydrocodone	81.0		P	40 - 150
Ibuprofen	92.3		P	40 - 150
Imazapyr	71.9		P	40 - 150
Imidacloprid	76.5		P	40 - 150
Linuron	89.4		P	40 - 150
Mandestrobin	84.3		P	40 - 150
MCPP	82.6		P	40 - 150
Naproxen	127		P	40 - 150
Primidone	83.5		P	40 - 150
Pyraclostrobin	75.6		P	40 - 150
Silvex	62.9		P	40 - 150
Thiamethoxam	78.0		P	40 - 150
Tolfenpyrad	44.7		P	30 - 150
Triclopyr	57.1		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P418588

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P418592

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.7		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P418825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350812	Calcium	107		P	80 - 120
2350812	Iron	111	114	P/P	80 - 120
2350812	Magnesium	107		P	80 - 120
2350812	Potassium	106	108	P/P	80 - 120
2350812	Sodium	106		P	80 - 120
2350812	Strontium	103	106	P/P	80 - 120
2350812	Tin	108	109	P/P	80 - 120
2350812	Titanium	109	109	P/P	80 - 120
2350812	Vanadium	106	106	P/P	80 - 120
2350812	Zinc	103	103	P/P	80 - 120
2350813	Calcium	108		P	80 - 120
2350813	Iron	110		P	80 - 120
2350813	Magnesium	106		P	80 - 120
2350813	Potassium	105		P	80 - 120
2350813	Sodium	107		P	80 - 120
2350813	Strontium	102		P	80 - 120
2350813	Tin	105		P	80 - 120
2350813	Titanium	108		P	80 - 120
2350813	Vanadium	105		P	80 - 120
2350813	Zinc	99.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350812	Aluminum	98.9	101	P/P	80 - 120
2350812	Antimony	106	106	P/P	80 - 120
2350812	Arsenic	102	102	P/P	80 - 120
2350812	Barium	105	106	P/P	80 - 120
2350812	Beryllium	99.4	98.3	P/P	80 - 120
2350812	Boron	99.9	104	P/P	80 - 120
2350812	Cadmium	103	103	P/P	80 - 120
2350812	Chromium	103	103	P/P	80 - 120
2350812	Cobalt	98.4	99.0	P/P	80 - 120
2350812	Copper	97.4	101	P/P	80 - 120
2350812	Lead	94.2	95.2	P/P	80 - 120
2350812	Manganese	103	105	P/P	80 - 120
2350812	Molybdenum	100	102	P/P	80 - 120
2350812	Nickel	100	100	P/P	80 - 120
2350812	Selenium	97.6	99.1	P/P	80 - 120
2350812	Silver	101	101	P/P	80 - 120
2350812	Thallium	102	105	P/P	80 - 120
2350813	Aluminum	103		P	80 - 120
2350813	Antimony	107		P	80 - 120
2350813	Arsenic	104		P	80 - 120
2350813	Barium	107		P	80 - 120
2350813	Beryllium	99.2		P	80 - 120
2350813	Boron	105		P	80 - 120
2350813	Cadmium	104		P	80 - 120
2350813	Chromium	104		P	80 - 120
2350813	Cobalt	99.9		P	80 - 120
2350813	Copper	98.5		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350813	Lead	95.4		P	80 - 120
2350813	Manganese	105		P	80 - 120
2350813	Molybdenum	103		P	80 - 120
2350813	Nickel	100		P	80 - 120
2350813	Selenium	101		P	80 - 120
2350813	Silver	101		P	80 - 120
2350813	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350686	Chloride	95.0		P	90 - 110
2350892	Chloride	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351371	Chloride	96.3		P	90 - 110
2351423	Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350686	Sulfate	95.3		P	90 - 110
2350892	Sulfate	93.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351371	Sulfate	96.0		P	90 - 110
2351423	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350895	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351374	Ammonia-N	96.8	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350798	Ammonia-N	95.8	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351041	Kjeldahl Nitrogen	100	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418750

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350853	NO2NO3-N	97.5	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351255	NO2NO3-N	98.8	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418515

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350689	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350894	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351252	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418398

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350896	O-Phosphate-P	99.8	98.9	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P418423

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350859	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	114	133	P/P	50 - 150
2350859	Acetochlor	88.9	85.6	P/P	65 - 124
2350859	Alachlor	81.2	76.7	P/P	61 - 121
2350859	Ametryn	105	88.7	P/P	52 - 216

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418423

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350859	Atrazine	92.9	90.4	P/P	68 - 133
2350859	Atrazine Desethyl	54.9	52.0	P/P	15 - 160
2350859	Avobenzone	78.7	81.8	P/P	59 - 206
2350859	Azinphos Methyl	135	156	P/P	40 - 292
2350859	Azoxystrobin	126	109	P/P	12 - 242
2350859	Bromacil	66.7	65.9	P/P	54 - 167
2350859	Butylate	50.9	55.5	P/P	14 - 94.0
2350859	Caffeine	102	109	P/P	10 - 226
2350859	Carbophenothion	74.4	79.0	P/P	49 - 122
2350859	Carfentrazone Ethyl	79.1	79.6	P/P	53 - 138
2350859	Chlorfenapyr	65.6	63.6	P/P	50 - 150
2350859	Chlorpyrifos Ethyl	89.8	82.3	P/P	52 - 122
2350859	Chlorpyrifos Methyl	82.4	80.4	P/P	66 - 117
2350859	Coumaphos	73.4	74.3	P/P	50 - 220
2350859	Cyanazine	79.6	72.0	P/P	43 - 245
2350859	Cyprodinil	76.6	70.2	P/P	50 - 150
2350859	Dechlorane Plus	113	128	P/P	50 - 150
2350859	Demeton	74.6	79.2	P/P	43 - 188
2350859	Diazinon	90.5	87.1	P/P	69 - 131
2350859	Difenoconazole	54.0	68.7	P/P	34 - 231
2350859	Dimethenamid	66.8	64.5	P/P	55 - 118
2350859	Dimethomorph	120	101	P/P	50 - 150
2350859	Disulfoton	55.7	56.5	P/P	38 - 141
2350859	Dithiopyr	76.9	68.5	P/P	42 - 116
2350859	EPTC	48.2	45.9	P/P	18 - 85.0
2350859	Ethion	49.3	64.1	P/P	10 - 131
2350859	Ethoprop	95.8	89.7	P/P	65 - 129
2350859	Etridiazole	63.6	64.2	P/P	50 - 150
2350859	Fenamiphos	83.4	68.2	P/P	31 - 137
2350859	Fenbuconazole	67.5	61.9	P/P	57 - 160
2350859	Fipronil	72.2	67.0	P/P	62 - 132
2350859	Fipronil Desulfinyl	78.0	72.3	P/P	57 - 131
2350859	Fipronil Sulfide	61.7	53.3	P/P	15 - 138
2350859	Fipronil Sulfone	78.0	67.6	P/P	21 - 134
2350859	Fluazifop-P-butyl	74.8	71.7	P/P	54 - 133
2350859	Fludioxonil	72.3	69.2	P/P	58 - 127
2350859	Flumioxazin	103	106	P/P	33 - 300
2350859	Flutolanil	56.4	54.7	P/P	42 - 130
2350859	Fluxapyroxad	57.5	63.6	P/P	23 - 141
2350859	Fonofos	79.3	65.2	P/P	58 - 119
2350859	Hexazinone	89.9	86.2	P/P	68 - 172
2350859	Imazalil	63.7	59.7	P/P	48 - 283
2350859	Iprodione	71.7	80.0	P/P	38 - 140
2350859	Loratadine	122	96.7	P/P	50 - 150
2350859	Malathion	86.9	87.4	P/P	40 - 137
2350859	Metalaxyl	70.3	68.9	P/P	21 - 129
2350859	Metolachlor	74.6	74.7	P/P	55 - 122
2350859	Metribuzin	98.8	94.6	P/P	38 - 187
2350859	Mevinphos	92.2	94.4	P/P	54 - 134
2350859	Molinate	70.6	67.7	P/P	41 - 97.0
2350859	Myclobutanil	72.3	70.0	P/P	56 - 125
2350859	Naled	72.3	69.1	P/P	10 - 108

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418423

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350859	Napropamide	57.2	60.4	P/P	50 - 150
2350859	Norflurazon	64.4	62.6	P/P	32 - 122
2350859	Octinoxate	162	168	F/F	25 - 150
2350859	Oxadiazon	60.3	60.0	P/P	40 - 119
2350859	Oxybenzone	91.9	112	P/P	59 - 147
2350859	Oxyfluorfen	90.8	87.0	P/P	61 - 153
2350859	Parathion Ethyl	94.6	82.1	P/P	59 - 130
2350859	Parathion Methyl	109	115	P/P	65 - 155
2350859	PBDE-47	105	119	P/P	50 - 150
2350859	PBDE-99	104	120	P/P	50 - 150
2350859	Pendimethalin	88.4	84.0	P/P	49 - 138
2350859	Phenytoin	24.2	32.7	F/F	50 - 200
2350859	Phorate	72.2	66.7	P/P	54 - 161
2350859	Prodiamine	49.7	46.9	P/P	33 - 161
2350859	Prometon	59.6	60.4	P/P	48 - 140
2350859	Prometryn	71.1	70.0	P/P	55 - 134
2350859	Pronamide	90.0	91.4	P/P	66 - 137
2350859	Propanil	92.4	92.2	P/P	50 - 150
2350859	Propargite	36.9	38.9	F/F	50 - 200
2350859	Propiconazole	72.0	70.2	P/P	36 - 150
2350859	Pyraflufen Ethyl	66.3	62.6	P/P	50 - 150
2350859	Pyridaben	91.2	81.4	P/P	50 - 200
2350859	Pyriproxyfen	77.6	86.5	P/P	10 - 165
2350859	Simazine	85.0	82.6	P/P	57 - 145
2350859	Stirophos	41.7	45.3	F/F	50 - 150
2350859	Sulfentrazone	71.4	70.8	P/P	34 - 140
2350859	Tebuconazole	20.5	32.1	P/P	10 - 127
2350859	Terbufos	98.1	90.1	P/P	59 - 138
2350859	Terbuthylazine	93.4	87.3	P/P	68 - 119
2350859	Thiobencarb	65.8	69.8	P/P	50 - 150
2350859	Tri-o-cresyl Phosphate	101	108	P/P	50 - 150
2350859	Triadimefon	75.2	80.2	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P418299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350857	Acesulfame K	93.6	93.1	P/P	40 - 150
2350857	AMPA	98.0	103	P/P	40 - 150
2350857	Endothall	137	133	P/P	40 - 150
2350857	Glufosinate	107	107	P/P	40 - 150
2350857	Glyphosate	94.3	86.2	P/P	40 - 150
2350857	Sucralose	112	112	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350002	2,4-D	68.8	70.9	P/P	40 - 150
2350002	2,4,5-T	68.5	72.4	P/P	40 - 150
2350002	Acetaminophen	71.5	74.1	P/P	30 - 150
2350002	Acetamiprid	57.5	58.9	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P418371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350002	Afidopyropen	52.4	67.1	P/P	30 - 150
2350002	Bentazon	103	90.0	P/P	30 - 150
2350002	Benzovindiflupyr	70.0	92.2	P/P	40 - 150
2350002	Carbamazepine	90.8	90.3	P/P	40 - 150
2350002	Clothianidin	66.9	55.7	P/P	40 - 150
2350002	Dinotefuran	96.9	96.5	P/P	40 - 150
2350002	Diuron	76.3	86.0	P/P	40 - 150
2350002	Fenuron	80.3	80.9	P/P	40 - 150
2350002	Fluridone	93.5	109	P/P	40 - 150
2350002	Hydrocodone	103	104	P/P	40 - 150
2350002	Ibuprofen	71.3	75.7	P/P	40 - 150
2350002	Imazapyr	70.8	74.5	P/P	40 - 150
2350002	Imidacloprid	53.3	65.8	P/P	40 - 150
2350002	Linuron	86.8	80.1	P/P	40 - 150
2350002	Mandestrobin	89.9	89.6	P/P	40 - 150
2350002	MCP	75.3	65.7	P/P	40 - 150
2350002	Naproxen	84.6	81.0	P/P	40 - 150
2350002	Primidone	46.9	51.1	P/P	40 - 150
2350002	Pyraclostrobin	84.9	84.6	P/P	40 - 150
2350002	Silvex	63.0	63.6	P/P	40 - 150
2350002	Thiamethoxam	94.8	92.0	P/P	40 - 150
2350002	Tolfenpyrad	46.9	50.0	P/P	30 - 150
2350002	Triclopyr	65.7	66.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P418568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350906	2,4-D	69.7	86.2	P/P	40 - 150
2350906	2,4,5-T	56.4	64.9	P/P	40 - 150
2350906	Acetaminophen	74.2	82.2	P/P	30 - 150
2350906	Acetamiprid	60.7	78.2	P/P	40 - 150
2350906	Afidopyropen	72.4	84.3	P/P	30 - 150
2350906	Bentazon	101	113	P/P	30 - 150
2350906	Benzovindiflupyr	75.5	100	P/P	40 - 150
2350906	Carbamazepine	92.7	114	P/P	40 - 150
2350906	Clothianidin	77.2	81.5	P/P	40 - 150
2350906	Dinotefuran	86.7	101	P/P	40 - 150
2350906	Diuron	84.6	98.0	P/P	40 - 150
2350906	Fenuron	85.9	96.1	P/P	40 - 150
2350906	Fluridone	109	128	P/P	40 - 150
2350906	Hydrocodone	93.6	92.3	P/P	40 - 150
2350906	Ibuprofen	53.3	68.8	P/P	40 - 150
2350906	Imazapyr	61.9	70.6	P/P	40 - 150
2350906	Imidacloprid	66.6	72.3	P/P	40 - 150
2350906	Linuron	94.2	92.0	P/P	40 - 150
2350906	Mandestrobin	85.9	100	P/P	40 - 150
2350906	MCP	75.9	85.5	P/P	40 - 150
2350906	Naproxen	116	97.8	P/P	40 - 150
2350906	Primidone	46.2	62.3	P/P	40 - 150
2350906	Pyraclostrobin	82.5	89.1	P/P	40 - 150
2350906	Silvex	59.5	74.6	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P418568

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350906	Thiamethoxam	83.2	90.8	P/P	40 - 150
2350906	Tolfenpyrad	50.5	52.9	P/P	30 - 150
2350906	Triclopyr	62.3	83.0	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P418592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350893	Fluoride	98.5	97.9	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P418825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351255	Organic Carbon	98.1	98.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P418435

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350892	Color (true)	0.184	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418412

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350852	Turbidity	4.23	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418437

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350812	Calcium	3.11	Spike	P	0 - 20
2350812	Iron	2.75	Spike	P	0 - 20
2350812	Magnesium	3.52	Spike	P	0 - 20
2350812	Potassium	1.35	Spike	P	0 - 20
2350812	Sodium	3.10	Spike	P	0 - 20
2350812	Strontium	2.61	Spike	P	0 - 20
2350812	Tin	1.21	Spike	P	0 - 20
2350812	Titanium	0.113	Spike	P	0 - 20
2350812	Vanadium	0.184	Spike	P	0 - 20
2350812	Zinc	0.494	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418437

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350812	Aluminum	1.69	Spike	P	0 - 20
2350812	Antimony	0.198	Spike	P	0 - 20
2350812	Arsenic	0.271	Spike	P	0 - 20
2350812	Barium	0.548	Spike	P	0 - 20
2350812	Beryllium	1.11	Spike	P	0 - 20
2350812	Boron	3.18	Spike	P	0 - 20
2350812	Cadmium	0.0131	Spike	P	0 - 20
2350812	Chromium	0.328	Spike	P	0 - 20
2350812	Cobalt	0.567	Spike	P	0 - 20
2350812	Copper	3.48	Spike	P	0 - 20
2350812	Lead	1.14	Spike	P	0 - 20
2350812	Manganese	1.73	Spike	P	0 - 20
2350812	Molybdenum	1.41	Spike	P	0 - 20
2350812	Nickel	0.161	Spike	P	0 - 20
2350812	Selenium	1.47	Spike	P	0 - 20
2350812	Silver	0.138	Spike	P	0 - 20
2350812	Thallium	2.21	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350686	Chloride	0.0259	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351371	Chloride	0.0828	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350686	Sulfate	0.438	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351371	Sulfate	0.349	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350895	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351374	Ammonia-N	0.948	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350798	Ammonia-N	1.91	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351041	Kjeldahl Nitrogen	1.09	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P418750

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350853	NO2NO3-N	1.02	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P418752

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351255	NO2NO3-N	0.368	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418515

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350689	Total-P	0.522	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418516

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350894	Total-P	0.523	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418672

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351252	Total-P	0.923	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P418398

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350896	O-Phosphate-P	0.906	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P418423

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350859	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	15.3	Spike	P	0 - 30
2350859	Acetochlor	3.82	Spike	P	0 - 27
2350859	Alachlor	5.69	Spike	P	0 - 27
2350859	Ametryn	17.2	Spike	P	0 - 34
2350859	Atrazine	2.09	Spike	P	0 - 41
2350859	Atrazine Desethyl	5.42	Spike	P	0 - 38
2350859	Avobenzene	3.87	Spike	P	0 - 30
2350859	Azinphos Methyl	14.5	Spike	P	0 - 62
2350859	Azoxystrobin	14.3	Spike	P	0 - 32

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P418423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350859	Bromacil	1.21	Spike	P	0 - 30
2350859	Butylate	8.60	Spike	P	0 - 59
2350859	Caffeine	6.51	Spike	P	0 - 60
2350859	Carbophenothion	5.90	Spike	P	0 - 25
2350859	Carfentrazone Ethyl	0.553	Spike	P	0 - 26
2350859	Chlorfenapyr	3.15	Spike	P	0 - 30
2350859	Chlorpyrifos Ethyl	8.74	Spike	P	0 - 27
2350859	Chlorpyrifos Methyl	2.50	Spike	P	0 - 26
2350859	Coumaphos	1.16	Spike	P	0 - 30
2350859	Cyanazine	9.99	Spike	P	0 - 58
2350859	Cyprodinil	8.69	Spike	P	0 - 30
2350859	Dechlorane Plus	12.2	Spike	P	0 - 30
2350859	Demeton	5.99	Spike	P	0 - 25
2350859	Diazinon	3.79	Spike	P	0 - 29
2350859	Difenoconazole	23.9	Spike	P	0 - 25
2350859	Dimethenamid	3.52	Spike	P	0 - 30
2350859	Dimethomorph	16.9	Spike	P	0 - 30
2350859	Disulfoton	1.41	Spike	P	0 - 33
2350859	Dithiopyr	10.3	Spike	P	0 - 22
2350859	EPTC	4.89	Spike	P	0 - 38
2350859	Ethion	26.1	Spike	P	0 - 79
2350859	Ethoprop	6.65	Spike	P	0 - 23
2350859	Etridiazole	0.978	Spike	P	0 - 30
2350859	Fenamiphos	20.0	Spike	P	0 - 58
2350859	Fenbuconazole	8.63	Spike	P	0 - 37
2350859	Fipronil	7.52	Spike	P	0 - 33
2350859	Fipronil Desulfinyl	7.64	Spike	P	0 - 26
2350859	Fipronil Sulfide	14.6	Spike	P	0 - 37
2350859	Fipronil Sulfone	14.2	Spike	P	0 - 50
2350859	Fluazifop-P-butyl	4.24	Spike	P	0 - 24
2350859	Fludioxonil	4.36	Spike	P	0 - 26
2350859	Flumioxazin	2.92	Spike	P	0 - 37
2350859	Flutolanil	2.60	Spike	P	0 - 26
2350859	Fluxapyroxad	10.0	Spike	P	0 - 34
2350859	Fonofos	19.5	Spike	P	0 - 27
2350859	Hexazinone	4.21	Spike	P	0 - 36
2350859	Imazalil	6.52	Spike	P	0 - 65
2350859	Iprodione	10.9	Spike	P	0 - 33
2350859	Loratadine	22.8	Spike	P	0 - 30
2350859	Malathion	0.536	Spike	P	0 - 44
2350859	Metalaxyl	1.97	Spike	P	0 - 38
2350859	Metolachlor	0.156	Spike	P	0 - 36
2350859	Metribuzin	4.27	Spike	P	0 - 63
2350859	Mevinphos	2.33	Spike	P	0 - 26
2350859	Molinate	4.28	Spike	P	0 - 40
2350859	Myclobutanil	3.27	Spike	P	0 - 21
2350859	Naled	4.57	Spike	P	0 - 26
2350859	Napropamide	5.34	Spike	P	0 - 30
2350859	Norflurazon	2.90	Spike	P	0 - 24
2350859	Octinoxate	3.22	Spike	P	0 - 30
2350859	Oxadiazon	0.495	Spike	P	0 - 27

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P418423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350859	Oxybenzone	19.7	Spike	P	0 - 30
2350859	Oxyfluorfen	4.29	Spike	P	0 - 24
2350859	Parathion Ethyl	14.2	Spike	P	0 - 28
2350859	Parathion Methyl	5.24	Spike	P	0 - 27
2350859	PBDE-47	12.6	Spike	P	0 - 30
2350859	PBDE-99	14.3	Spike	P	0 - 30
2350859	Pendimethalin	5.20	Spike	P	0 - 31
2350859	Phenytoin	30.1	Spike	F	0 - 30
2350859	Phorate	7.95	Spike	P	0 - 27
2350859	Prodiamine	5.79	Spike	P	0 - 52
2350859	Prometon	1.23	Spike	P	0 - 31
2350859	Prometryn	1.57	Spike	P	0 - 28
2350859	Pronamide	1.63	Spike	P	0 - 26
2350859	Propanil	0.240	Spike	P	0 - 30
2350859	Propargite	5.43	Spike	P	0 - 30
2350859	Propiconazole	2.49	Spike	P	0 - 31
2350859	Pyraflufen Ethyl	5.65	Spike	P	0 - 30
2350859	Pyridaben	10.4	Spike	P	0 - 30
2350859	Pyriproxyfen	10.8	Spike	P	0 - 50
2350859	Simazine	2.82	Spike	P	0 - 29
2350859	Stiropfos	8.33	Spike	P	0 - 30
2350859	Sulfentrazone	0.970	Spike	P	0 - 33
2350859	Tebuconazole	36.1	Spike	P	0 - 44
2350859	Terbufos	8.59	Spike	P	0 - 29
2350859	Terbuthylazine	6.73	Spike	P	0 - 27
2350859	Thiobencarb	5.96	Spike	P	0 - 30
2350859	Tri-o-cresyl Phosphate	5.96	Spike	P	0 - 30
2350859	Triadimefon	6.44	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P418299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350857	Acesulfame K	0.483	Spike	P	0 - 30
2350857	AMPA	5.24	Spike	P	0 - 30
2350857	Endothall	2.47	Spike	P	0 - 30
2350857	Glufosinate	0.528	Spike	P	0 - 30
2350857	Glyphosate	8.95	Spike	P	0 - 30
2350857	Sucralose	0.163	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P418371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350002	2,4-D	2.78	Spike	P	0 - 30
2350002	2,4,5-T	5.55	Spike	P	0 - 30
2350002	Acetaminophen	3.62	Spike	P	0 - 30
2350002	Acetamiprid	2.51	Spike	P	0 - 30
2350002	Afidopyropen	24.5	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P418371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350002	Bentazon	8.29	Spike	P	0 - 30
2350002	Benzovindiflupyr	27.3	Spike	P	0 - 30
2350002	Carbamazepine	0.568	Spike	P	0 - 30
2350002	Clothianidin	18.2	Spike	P	0 - 30
2350002	Dinotefuran	0.482	Spike	P	0 - 30
2350002	Diuron	11.9	Spike	P	0 - 30
2350002	Fenuron	0.732	Spike	P	0 - 30
2350002	Fluridone	15.4	Spike	P	0 - 30
2350002	Hydrocodone	1.10	Spike	P	0 - 30
2350002	Ibuprofen	6.05	Spike	P	0 - 30
2350002	Imazapyr	4.43	Spike	P	0 - 30
2350002	Imidacloprid	19.9	Spike	P	0 - 30
2350002	Linuron	8.07	Spike	P	0 - 30
2350002	Mandestrobin	0.383	Spike	P	0 - 30
2350002	MCPP	9.35	Spike	P	0 - 30
2350002	Naproxen	4.33	Spike	P	0 - 30
2350002	Primidone	8.47	Spike	P	0 - 30
2350002	Pyraclostrobin	0.375	Spike	P	0 - 30
2350002	Silvex	0.989	Spike	P	0 - 30
2350002	Thiamethoxam	2.91	Spike	P	0 - 30
2350002	Tolfenpyrad	6.38	Spike	P	0 - 30
2350002	Triclopyr	1.32	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P418568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350906	2,4-D	17.5	Spike	P	0 - 30
2350906	2,4,5-T	14.0	Spike	P	0 - 30
2350906	Acetaminophen	10.2	Spike	P	0 - 30
2350906	Acetamiprid	25.3	Spike	P	0 - 30
2350906	Afidopyropen	15.1	Spike	P	0 - 30
2350906	Bentazon	10.1	Spike	P	0 - 30
2350906	Benzovindiflupyr	28.1	Spike	P	0 - 30
2350906	Carbamazepine	20.5	Spike	P	0 - 30
2350906	Clothianidin	5.49	Spike	P	0 - 30
2350906	Dinotefuran	15.3	Spike	P	0 - 30
2350906	Diuron	14.2	Spike	P	0 - 30
2350906	Fenuron	11.1	Spike	P	0 - 30
2350906	Fluridone	12.0	Spike	P	0 - 30
2350906	Hydrocodone	1.41	Spike	P	0 - 30
2350906	Ibuprofen	25.3	Spike	P	0 - 30
2350906	Imazapyr	12.0	Spike	P	0 - 30
2350906	Imidacloprid	8.26	Spike	P	0 - 30
2350906	Linuron	2.28	Spike	P	0 - 30
2350906	Mandestrobin	15.5	Spike	P	0 - 30
2350906	MCPP	11.9	Spike	P	0 - 30
2350906	Naproxen	16.7	Spike	P	0 - 30
2350906	Primidone	25.2	Spike	P	0 - 30
2350906	Pyraclostrobin	7.62	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P418568

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350906	Silvex	22.6	Spike	P	0 - 30
2350906	Thiamethoxam	8.73	Spike	P	0 - 30
2350906	Tolfenpyrad	4.53	Spike	P	0 - 30
2350906	Triclopyr	28.5	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P418588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350893	Total Alkalinity	1.87	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P418837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350478	TDS	5.97	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P418838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350722	TDS	1.60	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P418592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350893	Fluoride	0.470	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P418825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351255	Organic Carbon	0.0271	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2350905
Field Sample ID: G3CE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.0	P	30 - 160
EPA 8321B	Diuron-d6	95.1	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	52.7	P	30 - 160
EPA 8321B	Primidone-d5	42.3	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Lab Sample ID: 2350906
Field Sample ID: G3CE0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	69.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	93.0	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.8	P	30 - 160
EPA 8321B	Primidone-d5	70.4	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	30 - 160

Lab Sample ID: 2350907
Field Sample ID: FB_08182022

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	63.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.0	P	30 - 160
EPA 8321B	Diuron-d6	99.5	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.4	P	30 - 160
EPA 8321B	Primidone-d5	90.1	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	30 - 160

Lab Sample ID: 2350916
Field Sample ID: G3CE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	60.9	P	20 - 200
EPA 8270E	Simazine-d10	104	P	71 - 140
EPA 8270E	Terbufos-d10	90.2	P	62 - 131
EPA 8270E	Terphenyl-d14	80.0	P	52 - 141

Lab Sample ID: 2350917
Field Sample ID: G3CE0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	55.8	P	20 - 200

Quality Assurance Report Surrogates

Lab Sample ID: 2350917
Field Sample ID: G3CE0060

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	103	P	71 - 140
EPA 8270E	Terbufos-d10	85.8	P	62 - 131
EPA 8270E	Terphenyl-d14	75.6	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A114215

Included Lab Sample IDs: 2350896, 2350897, 2350900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114220

Included Lab Sample IDs: 2350892, 2350893, 2350898

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

Reference Method: DEP SOP: NU-094-1

Run ID: A114231

Included Lab Sample IDs: 2350892, 2350893, 2350898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	99.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114284

Included Lab Sample IDs: 2350909, 2350910, 2350911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	97.3	P/P	90 - 110
Aluminum	99.6	98.7	P/P	90 - 110
Antimony	101	98.7	P/P	90 - 110
Antimony	99.5	98.0	P/P	90 - 110
Arsenic	101	99.9	P/P	90 - 110
Arsenic	104	101	P/P	90 - 110
Barium	101	98.4	P/P	90 - 110
Barium	99.1	97.8	P/P	90 - 110
Beryllium	96.4	99.3	P/P	90 - 110
Boron	96.5	95.3	P/P	90 - 110
Boron	97.4	98.8	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Cadmium	102	100	P/P	90 - 110
Chromium	101	97.8	P/P	90 - 110
Chromium	103	101	P/P	90 - 110
Cobalt	103	98.0	P/P	90 - 110
Cobalt	98.6	97.3	P/P	90 - 110
Copper	104	98.8	P/P	90 - 110
Copper	99.8	99.8	P/P	90 - 110
Lead	91.8	90.6	P/P	90 - 110
Lead	92.5	90.1	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Manganese	104	99.8	P/P	90 - 110
Molybdenum	96.5	96.2	P/P	90 - 110
Molybdenum	99.1	96.0	P/P	90 - 110
Nickel	104	98.5	P/P	90 - 110
Nickel	99.2	98.0	P/P	90 - 110
Selenium	101	98.8	P/P	90 - 110
Selenium	103	101	P/P	90 - 110
Silver	96.7	95.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114284

Included Lab Sample IDs: 2350909, 2350910, 2350911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	98.2	95.2	P/P	90 - 110
Thallium	102	101	P/P	90 - 110
Thallium	103	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A114295

Included Lab Sample IDs: 2350892, 2350893, 2350898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	100	P/P	90 - 110
Total Alkalinity	100	96.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A114295

Included Lab Sample IDs: 2350892, 2350893, 2350898

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114338

Included Lab Sample IDs: 2350909, 2350910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	98.3	98.4	P/P	90 - 110
Manganese	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114343

Included Lab Sample IDs: 2350895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	96.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114346

Included Lab Sample IDs: 2350899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114348

Included Lab Sample IDs: 2350894, 2350895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A114368

Included Lab Sample IDs: 2350905, 2350906, 2350907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	118	P/P	60 - 160
Sucralose	120	118	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114369

Included Lab Sample IDs: 2350905, 2350906, 2350907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	120	P/P	50 - 150
2,4-D	120	99.5	P/P	50 - 150
2,4,5-T	122	145	P/P	50 - 150
2,4,5-T	93.6	122	P/P	50 - 150
Acetaminophen	82.6	87.0	P/P	60 - 160
Acetaminophen	90.8	82.6	P/P	60 - 160
Acetamiprid	100	92.4	P/P	50 - 150
Acetamiprid	115	100	P/P	50 - 150
Afidopyropen	108	112	P/P	50 - 150
Afidopyropen	112	134	P/P	50 - 150
Bentazon	111	85.2	P/P	50 - 160
Bentazon	85.2	71.4	P/P	50 - 160
Benzovindiflupyr	112	93.9	P/P	50 - 150
Benzovindiflupyr	93.9	101	P/P	50 - 150
Carbamazepine	100	80.8	P/P	60 - 150
Carbamazepine	113	100	P/P	60 - 150
Clothianidin	84.8	99.0	P/P	60 - 150
Clothianidin	95.8	84.8	P/P	60 - 150
Dinotefuran	100	88.3	P/P	50 - 150
Dinotefuran	99.7	100	P/P	50 - 150
Diuron	88.4	102	P/P	60 - 160
Diuron	94.2	88.4	P/P	60 - 160
Fenuron	90.4	90.6	P/P	60 - 150
Fenuron	93.1	90.4	P/P	60 - 150
Fluridone	105	97.1	P/P	60 - 160
Fluridone	97.1	96.3	P/P	60 - 160
Hydrocodone	101	88.4	P/P	60 - 150
Hydrocodone	95.5	101	P/P	60 - 150
Ibuprofen	102	111	P/P	50 - 160
Ibuprofen	104	102	P/P	50 - 160
Imazapyr	72.3	81.4	P/P	50 - 150
Imazapyr	81.4	79.3	P/P	50 - 150
Imidacloprid	100	126	P/P	60 - 150
Imidacloprid	126	95.2	P/P	60 - 150
Linuron	111	84.8	P/P	60 - 150
Linuron	84.8	104	P/P	60 - 150
Mandestrobin	96.6	97.0	P/P	50 - 150
Mandestrobin	98.1	96.6	P/P	50 - 150
MCPP	85.1	91.9	P/P	50 - 150
MCPP	91.9	94.0	P/P	50 - 150
Naproxen	111	99.1	P/P	50 - 160
Naproxen	99.1	124	P/P	50 - 160
Primidone	87.3	88.0	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A114369

Included Lab Sample IDs: 2350905, 2350906, 2350907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	88.0	79.4	P/P	60 - 150
Pyraclostrobin	95.7	98.6	P/P	60 - 150
Pyraclostrobin	98.6	110	P/P	60 - 150
Silvex	71.3	79.0	P/P	50 - 150
Silvex	79.0	87.1	P/P	50 - 150
Thiamethoxam	84.6	92.3	P/P	50 - 150
Thiamethoxam	99.1	84.6	P/P	50 - 150
Tolfenpyrad	97.8	105	P/P	60 - 150
Tolfenpyrad	98.7	97.8	P/P	60 - 150
Triclopyr	83.0	97.9	P/P	50 - 150
Triclopyr	97.9	99.6	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A114374

Included Lab Sample IDs: 2350905, 2350906, 2350907

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	120	114	P/P	60 - 160
Endothall	132	116	P/P	60 - 160
Glufosinate	120	113	P/P	60 - 160
Glyphosate	112	108	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114378

Included Lab Sample IDs: 2350894, 2350895, 2350899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	95.0	P/P	90 - 110
NO2NO3-N	98.0	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114379

Included Lab Sample IDs: 2350894

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114393

Included Lab Sample IDs: 2350894, 2350895, 2350899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.0	98.8	P/P	90 - 110
Kjeldahl Nitrogen	99.9	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114404

Included Lab Sample IDs: 2350899

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A114412

Included Lab Sample IDs: 2350894, 2350895, 2350899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	95.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114446

Included Lab Sample IDs: 2350892, 2350893, 2350898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.7	99.6	P/P	90 - 110
Chloride	99.6	100	P/P	90 - 110
Sulfate	98.2	99.2	P/P	90 - 110
Sulfate	99.1	99.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114459

Included Lab Sample IDs: 2350916, 2350917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.9		P	80 - 120
Avobenzone	95.7		P	80 - 120
Dechlorane Plus	90.5		P	80 - 120
Octinoxate	96.0		P	80 - 120
Oxybenzone	92.1		P	80 - 120
PBDE-47	96.8		P	80 - 120
PBDE-99	93.0		P	80 - 120
Tri-o-cresyl Phosphate	96.2		P	80 - 120

Reference Method: EPA 8270E

Run ID: A114474

Included Lab Sample IDs: 2350916, 2350917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.2		P	80 - 120
Alachlor	98.6		P	80 - 120
Ametryn	107		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	99.1		P	80 - 120
Azinphos Methyl	115		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	99.0		P	80 - 120
Caffeine	119		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	101		P	80 - 120
Chlorfenapyr	100		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	99.5		P	80 - 120
Cyanazine	101		P	80 - 120
Cyprodinil	97.2		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	99.6		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A114474

Included Lab Sample IDs: 2350916, 2350917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Difenoconazole	102		P	80 - 120
Dimethenamid	96.2		P	80 - 120
Dimethomorph	97.6		P	80 - 120
Disulfoton	98.1		P	80 - 120
Dithiopyr	98.7		P	80 - 120
EPTC	99.6		P	80 - 120
Ethion	104		P	80 - 120
Ethoprop	101		P	80 - 120
Etridiazole	95.9		P	80 - 120
Fenamiphos	99.2		P	80 - 120
Fenbuconazole	100		P	80 - 120
Fipronil	98.4		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fluazifop-P-butyl	99.4		P	80 - 120
Fludioxonil	91.4		P	80 - 120
Flumioxazin	108		P	80 - 120
Flutolanil	98.3		P	80 - 120
Fluxapyroxad	102		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	95.2		P	80 - 120
Imazalil	94.5		P	80 - 120
Iprodione	104		P	80 - 120
Loratadine	104		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	99.0		P	80 - 120
Metolachlor	96.8		P	80 - 120
Metribuzin	96.3		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	100		P	80 - 120
Myclobutanil	104		P	80 - 120
Naled	107		P	80 - 120
Napropamide	99.3		P	80 - 120
Norflurazon	99.4		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	98.9		P	80 - 120
Parathion Ethyl	97.6		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	97.0		P	80 - 120
Phenytoin	100		P	80 - 120
Phorate	99.8		P	80 - 120
Prodiamine	94.2		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	98.0		P	80 - 120
Propanil	91.4		P	80 - 120
Propargite	102		P	80 - 120
Propiconazole	102		P	80 - 120
Pyraflufen Ethyl	95.6		P	80 - 120
Pyridaben	94.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A114474

Included Lab Sample IDs: 2350916, 2350917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyriproxyfen	97.8		P	80 - 120
Simazine	91.8		P	80 - 120
Stirophos	106		P	80 - 120
Sulfentrazone	101		P	80 - 120
Tebuconazole	99.7		P	80 - 120
Terbufos	98.2		P	80 - 120
Terbuthylazine	95.5		P	80 - 120
Thiobencarb	97.1		P	80 - 120
Triadimefon	101		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114559

Included Lab Sample IDs: 2350909, 2350910, 2350911

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	103	P/P	90 - 110
Calcium	101	103	P/P	95 - 105
Iron	103	105	P/P	90 - 110
Iron	105	106	P/P	95 - 105
Magnesium	102	103	P/P	90 - 110
Magnesium	104	105	P/P	95 - 105
Potassium	102	102	P/P	95 - 105
Potassium	99.8	100	P/P	90 - 110
Sodium	101	102	P/P	95 - 105
Sodium	100	101	P/P	90 - 110
Strontium	95.4	98.8	P/P	95 - 105
Strontium	96.5	99.7	P/P	90 - 110
Tin	105	106	P/P	90 - 110
Tin	99.6	105	P/P	95 - 105
Titanium	103	104	P/P	90 - 110
Titanium	98.2	103	P/P	95 - 105
Vanadium	101	103	P/P	90 - 110
Vanadium	97.3	102	P/P	95 - 105
Zinc	102	104	P/P	90 - 110
Zinc	97.7	103	P/P	95 - 105

* 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)	97.4					0.184	
EPA 180.1 Rev. 2.0	Turbidity	96.2					4.23	
EPA 200.7 Rev. 4.4	Calcium	107	107	108				3.11
	Iron	115	111	114	110			2.75
	Magnesium	106	107	106				3.52
	Potassium	110	106	108	105			1.35
	Sodium	106	106	107				3.10
	Strontium	107	103	106	102			2.61
	Tin	110	108	109	105			1.21
	Titanium	107	109	109	108			0.113
	Vanadium	105	106	106	105			0.184
	Zinc	106	103	103	99.8			0.494
EPA 200.8 Rev. 5.4	Aluminum	100	103	98.9	101			1.69
	Antimony	102	107	106	106			0.198
	Arsenic	100	104	102	102			0.271
	Barium	104	107	105	106			0.548
	Beryllium	95.7	99.2	99.4	98.3			1.11
	Boron	99.2	105	99.9	104			3.18
	Cadmium	98.1	104	103	103			0.0131
	Chromium	100	104	103	103			0.328
	Cobalt	99.5	99.9	98.4	99.0			0.567
	Copper	100	98.5	97.4	101			3.48
	Lead	92.9	95.4	94.2	95.2			1.14
	Manganese	102	105	103	105			1.73
	Molybdenum	96.6	103	100	102			1.41
	Nickel	101	100	100	100			0.161
	Selenium	99.4	101	97.6	99.1			1.47
	Silver	99.4	101	101	101			0.138
	Thallium	98.2	104	102	105			2.21
EPA 300.0 Rev. 2.1	Chloride	99.4	95.0	96.6			0.0259	
	Chloride	98.3	96.3	97.7			0.0828	
	Sulfate	97.8	95.3	93.5			0.438	
	Sulfate	97.9	96.0	98.5			0.349	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4	103	103				0.0
	Ammonia-N	98.2	96.8	97.8				0.948
	Ammonia-N	97.6	95.8	98.0				1.91
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.8	100	98.8				1.09
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	97.5	98.5				1.02
	NO2NO3-N	99.5	98.8	98.2				0.368
EPA 365.1 Rev. 2.0	Total-P	104	102	103				0.522
	Total-P	102	104	105				0.523
	Total-P	105	104	103				0.923
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	99.8	98.9				0.906
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	130	114	133				15.3
	Acetochlor	86.5	85.6	88.9				3.82
	Alachlor	77.6	76.7	81.2				5.69
	Ametryn	80.2	88.7	105				17.2
	Atrazine	91.1	90.4	92.9				2.09
	Atrazine Desethyl	61.1	52.0	54.9				5.42
	Avobenzone	77.6	78.7	81.8				3.87
	Azinphos Methyl	163	156	135				14.5
	Azoxystrobin	99.9	109	126				14.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Bromacil	62.2	65.9	66.7		1.21
	Butylate	53.6	55.5	50.9		8.60
	Caffeine	90.1	109	102		6.51
	Carbophenothion	86.6	79.0	74.4		5.90
	Carfentrazone Ethyl	92.2	79.6	79.1		0.553
	Chlorfenapyr	78.1	63.6	65.6		3.15
	Chlorpyrifos Ethyl	96.7	82.3	89.8		8.74
	Chlorpyrifos Methyl	89.9	80.4	82.4		2.50
	Coumaphos	87.3	74.3	73.4		1.16
	Cyanazine	83.7	72.0	79.6		9.99
	Cyprodinil	76.0	70.2	76.6		8.69
	Dechlorane Plus	136	113	128		12.2
	Demeton	75.2	79.2	74.6		5.99
	Diazinon	89.0	87.1	90.5		3.79
	Difenoconazole	72.0	68.7	54.0		23.9
	Dimethenamid	67.4	64.5	66.8		3.52
	Dimethomorph	89.9	101	120		16.9
	Disulfoton	74.1	56.5	55.7		1.41
	Dithiopyr	76.0	68.5	76.9		10.3
	EPTC	46.8	45.9	48.2		4.89
	Ethion	80.4	64.1	49.3		26.1
	Ethoprop	90.9	89.7	95.8		6.65
	Etridiazole	57.5	64.2	63.6		0.978
	Fenamiphos	82.0	68.2	83.4		20.0
	Fenbuconazole	79.6	61.9	67.5		8.63
	Fipronil	70.5	67.0	72.2		7.52
	Fipronil Desulfinyl	77.6	72.3	78.0		7.64
	Fipronil Sulfide	68.2	53.3	61.7		14.6
	Fipronil Sulfone	60.5	67.6	78.0		14.2
	Fluazifop-P-butyl	84.3	71.7	74.8		4.24
	Fludioxonil	75.6	69.2	72.3		4.36
	Flumioxazin	116	106	103		2.92
	Flutolanil	77.7	54.7	56.4		2.60
	Fluxapyroxad	68.6	63.6	57.5		10.0
	Fonofos	75.9	65.2	79.3		19.5
	Hexazinone	89.2	86.2	89.9		4.21
	Imazalil	51.3	59.7	63.7		6.52
	Iprodione	86.1	80.0	71.7		10.9
	Loratadine	97.2	96.7	122		22.8
	Malathion	95.5	86.9	87.4		0.536
	Metalaxyl	66.5	70.3	68.9		1.97
	Metolachlor	77.0	74.6	74.7		0.156
	Metribuzin	84.1	98.8	94.6		4.27
	Mevinphos	91.7	92.2	94.4		2.33
	Molinate	70.4	70.6	67.7		4.28
	Myclobutanil	82.3	72.3	70.0		3.27
	Naled	67.7	72.3	69.1		4.57
	Napropamide	70.9	57.2	60.4		5.34
	Norflurazon	70.1	64.4	62.6		2.90
	Octinoxate	146	162	168		3.22
	Oxadiazon	63.9	60.3	60.0		0.495
	Oxybenzone	110	91.9	112		19.7
	Oxyfluorfen	97.9	90.8	87.0		4.29
	Parathion Ethyl	84.2	94.6	82.1		14.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Parathion Methyl	118	109	115			5.24
	PBDE-47	124	105	119			12.6
	PBDE-99	125	104	120			14.3
	Pendimethalin	86.8	88.4	84.0			5.20
	Phenytoin	48.3	24.2	32.7			30.1
	Phorate	67.0	72.2	66.7			7.95
	Prodiamine	42.7	49.7	46.9			5.79
	Prometon	63.6	59.6	60.4			1.23
	Prometryn	70.6	71.1	70.0			1.57
	Pronamide	88.8	90.0	91.4			1.63
	Propanil	97.7	92.4	92.2			0.240
	Propargite	58.3	36.9	38.9			5.43
	Propiconazole	73.5	72.0	70.2			2.49
	Pyraflufen Ethyl	78.3	66.3	62.6			5.65
	Pyridaben	83.8	91.2	81.4			10.4
	Pyriproxyfen	74.0	77.6	86.5			10.8
	Simazine	90.0	85.0	82.6			2.82
	Stirophos	71.9	41.7	45.3			8.33
	Sulfentrazone	78.6	71.4	70.8			0.970
	Tebuconazole	45.4	20.5	32.1			36.1
	Terbufos	96.9	98.1	90.1			8.59
	Terbuthylazine	91.9	93.4	87.3			6.73
	Thiobencarb	70.7	65.8	69.8			5.96
	Tri-o-cresyl Phosphate	116	101	108			5.96
	Triadimefon	78.7	75.2	80.2			6.44
EPA 8321B	2,4-D	66.7	68.8	70.9			2.78
	2,4-D	63.3	69.7	86.2			17.5
	2,4,5-T	72.5	68.5	72.4			5.55
	2,4,5-T	60.3	56.4	64.9			14.0
	Acesulfame K	99.5	93.6	93.1			0.483
	Acetaminophen	88.1	71.5	74.1			3.62
	Acetaminophen	75.8	74.2	82.2			10.2
	Acetamiprid	80.9	57.5	58.9			2.51
	Acetamiprid	76.4	60.7	78.2			25.3
	Afidopyropen	89.0	52.4	67.1			24.5
	Afidopyropen	64.6	72.4	84.3			15.1
	AMPA	112	98.0	103			5.24
	Bentazon	114	103	90.0			8.29
	Bentazon	98.0	101	113			10.1
	Benzovindiflupyr	98.5	70.0	92.2			27.3
	Benzovindiflupyr	95.6	75.5	100			28.1
	Carbamazepine	117	90.8	90.3			0.568
	Carbamazepine	89.5	92.7	114			20.5
	Clothianidin	100	66.9	55.7			18.2
	Clothianidin	74.5	77.2	81.5			5.49
	Dinotefuran	108	96.9	96.5			0.482
	Dinotefuran	82.1	86.7	101			15.3
	Diuron	86.2	76.3	86.0			11.9
	Diuron	91.7	84.6	98.0			14.2
	Endothall	120	137	133			2.47
	Fenuron	113	80.3	80.9			0.732
	Fenuron	90.4	85.9	96.1			11.1
	Fluridone	90.2	93.5	109			15.4
	Fluridone	90.0	109	128			12.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Glufosinate	125	107	107		0.528
	Glyphosate	103	94.3	86.2		8.95
	Hydrocodone	99.0	103	104		1.10
	Hydrocodone	81.0	93.6	92.3		1.41
	Ibuprofen	81.9	71.3	75.7		6.05
	Ibuprofen	92.3	53.3	68.8		25.3
	Imazapyr	86.3	70.8	74.5		4.43
	Imazapyr	71.9	61.9	70.6		12.0
	Imidacloprid	93.3	53.3	65.8		19.9
	Imidacloprid	76.5	66.6	72.3		8.26
	Linuron	101	86.8	80.1		8.07
	Linuron	89.4	94.2	92.0		2.28
	Mandestrobin	101	89.9	89.6		0.383
	Mandestrobin	84.3	85.9	100		15.5
	MCPP	85.7	75.3	65.7		9.35
	MCPP	82.6	75.9	85.5		11.9
	Naproxen	148	84.6	81.0		4.33
	Naproxen	127	116	97.8		16.7
	Primidone	89.4	46.9	51.1		8.47
	Primidone	83.5	46.2	62.3		25.2
	Pyraclostrobin	88.9	84.9	84.6		0.375
	Pyraclostrobin	75.6	82.5	89.1		7.62
	Silvex	66.8	63.0	63.6		0.989
	Silvex	62.9	59.5	74.6		22.6
	Sucralose	113	112	112		0.163
	Thiamethoxam	101	94.8	92.0		2.91
	Thiamethoxam	78.0	83.2	90.8		8.73
	Tolfenpyrad	40.5	46.9	50.0		6.38
	Tolfenpyrad	44.7	50.5	52.9		4.53
	Triclopyr	68.9	65.7	66.5		1.32
	Triclopyr	57.1	62.3	83.0		28.5
SM 2320 B-2011	Total Alkalinity	100			1.87	
SM 2540 C-2011	TDS				5.97	
	TDS				1.60	
SM 4500-F- C-2011	Fluoride	99.7	98.5	97.9		0.470
SM 5310 B-2011	Organic Carbon	97.2	98.1	98.2		0.0271

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2350892, 2350893, 2350898
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2350892, 2350893, 2350898
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2350909, 2350910, 2350911
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2350909, 2350910, 2350911
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2350892, 2350893, 2350898
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2350892, 2350893, 2350898
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2350894, 2350895, 2350899
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2350894, 2350895, 2350899
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2350894, 2350895, 2350899
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2350894, 2350895, 2350899

Reference Method Descriptions

Method	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2350896, 2350897, 2350900
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2350916, 2350917
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2350916, 2350917
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2350905, 2350906, 2350907
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2350892, 2350893, 2350898
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2350909, 2350910, 2350911
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2350892, 2350893, 2350898
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2350892, 2350893, 2350898
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2350892, 2350893, 2350898
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2350894, 2350895, 2350899

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	08/19/2022			08/19/2022 15:35	Blanca Fach	2350892
	08/19/2022			08/19/2022 15:36	Blanca Fach	2350893
	08/19/2022			08/19/2022 15:37	Blanca Fach	2350898
EPA 180.1 Rev. 2.0	08/19/2022			08/19/2022 14:25	Anna M. Plaviak	2350892
	08/19/2022			08/19/2022 14:27	Anna M. Plaviak	2350893
	08/19/2022			08/19/2022 14:29	Anna M. Plaviak	2350898
EPA 200.7 Rev. 4.4	08/19/2022	08/22/2022 10:30	Megan Whitefoot	09/06/2022 15:39	McKinley C Carter	2350911
	08/19/2022	08/22/2022 10:30	Megan Whitefoot	09/06/2022 19:50	McKinley C Carter	2350909
	08/19/2022	08/22/2022 10:30	Megan Whitefoot	09/06/2022 19:58	McKinley C Carter	2350910
EPA 200.8 Rev. 5.4	08/19/2022	08/22/2022 10:30	Megan Whitefoot	08/23/2022 15:01	Megan Whitefoot	2350911
	08/19/2022	08/22/2022 10:30	Megan Whitefoot	08/23/2022 19:05	Megan Whitefoot	2350909
	08/19/2022	08/22/2022 10:30	Megan Whitefoot	08/23/2022 19:14	Megan Whitefoot	2350910
	08/19/2022	08/22/2022 10:30	Megan Whitefoot	08/24/2022 17:04	Emily M Philpot	2350909
	08/19/2022	08/22/2022 10:30	Megan Whitefoot	08/24/2022 17:13	Emily M Philpot	2350910
EPA 300.0 Rev. 2.1	08/19/2022			08/31/2022 14:41	Anna M. Plaviak	2350892
	08/19/2022			08/31/2022 21:58	Anna M. Plaviak	2350893
	08/19/2022			08/31/2022 22:12	Anna M. Plaviak	2350898
EPA 350.1 Rev. 2.0	08/19/2022			08/25/2022 11:15	Judith K. Clark	2350895
	08/19/2022			08/25/2022 13:36	Ping Hua	2350899
	08/19/2022			08/26/2022 10:41	Ping Hua	2350894
EPA 351.2 Rev. 2.0	08/19/2022	08/25/2022 14:20	Alexandra J Mattheus	08/26/2022 13:23	Alexandra J Mattheus	2350894
	08/19/2022	08/25/2022 14:20	Alexandra J Mattheus	08/26/2022 13:27	Alexandra J Mattheus	2350895
	08/19/2022	08/25/2022 14:20	Alexandra J Mattheus	08/26/2022 13:29	Alexandra J Mattheus	2350899
EPA 353.2 Rev. 2.0	08/19/2022			08/26/2022 10:14	Beverly Y. Sanders	2350894
	08/19/2022			08/26/2022 10:15	Beverly Y. Sanders	2350895
	08/19/2022			08/26/2022 11:08	Beverly Y. Sanders	2350899
EPA 365.1 Rev. 2.0	08/19/2022	08/24/2022 15:20	Simonne.V. Calhoun	08/25/2022 14:55	James L Waggeberby	2350895
	08/19/2022	08/24/2022 15:20	Simonne.V. Calhoun	08/25/2022 14:59	James L Waggeberby	2350894
	08/19/2022	08/25/2022 15:50	Simonne.V. Calhoun	08/29/2022 14:43	James L Waggeberby	2350899
EPA 365.1 Rev. 2.0 dissolved	08/19/2022			08/19/2022 13:50	Elise M. Gillis	2350896
	08/19/2022			08/19/2022 13:53	Elise M. Gillis	2350897
	08/19/2022			08/19/2022 13:54	Elise M. Gillis	2350900
EPA 8270E	08/19/2022	08/25/2022 08:30	Rasheda Ghaffari	08/30/2022 17:23	Michael Poppell	2350916
	08/19/2022	08/25/2022 08:30	Rasheda Ghaffari	08/30/2022 17:50	Michael Poppell	2350917
	08/19/2022	08/25/2022 08:30	Rasheda Ghaffari	08/30/2022 18:10	Lipi Saha	2350916
	08/19/2022	08/25/2022 08:30	Rasheda Ghaffari	08/30/2022 18:29	Lipi Saha	2350917
EPA 8321B	08/19/2022	08/22/2022 09:30	June Rhew	08/26/2022 15:55	Juyoung Kim	2350905
	08/19/2022	08/22/2022 09:30	June Rhew	08/26/2022 16:57	Juyoung Kim	2350905
	08/19/2022	08/24/2022 13:00	Umesh Chiluwal	08/24/2022 14:53	Umesh Chiluwal	2350905
	08/19/2022	08/24/2022 13:00	Umesh Chiluwal	08/24/2022 15:08	Umesh Chiluwal	2350906

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	08/19/2022	08/24/2022 13:00	Umesh Chiluwal	08/24/2022 15:23	Umesh Chiluwal	2350907
	08/19/2022	08/24/2022 13:00	Umesh Chiluwal	08/24/2022 23:57	Umesh Chiluwal	2350905
	08/19/2022	08/24/2022 13:00	Umesh Chiluwal	08/25/2022 00:10	Umesh Chiluwal	2350906
	08/19/2022	08/24/2022 13:00	Umesh Chiluwal	08/25/2022 00:23	Umesh Chiluwal	2350907
	08/19/2022	08/25/2022 09:30	June Rhew	08/26/2022 19:02	Juyoung Kim	2350906
	08/19/2022	08/25/2022 09:30	June Rhew	08/26/2022 19:23	Juyoung Kim	2350907
SM 2320 B-2011	08/19/2022			08/23/2022 20:17	Dale L. Simmons	2350893
	08/19/2022			08/23/2022 22:30	Dale L. Simmons	2350892
	08/19/2022			08/23/2022 22:39	Dale L. Simmons	2350898
SM 2340 B-2011	08/19/2022			09/06/2022 15:39	McKinley C Carter	2350911
	08/19/2022			09/06/2022 19:50	McKinley C Carter	2350909
	08/19/2022			09/06/2022 19:58	McKinley C Carter	2350910
SM 2540 C-2011	08/19/2022			08/23/2022 13:01	Yijie Li	2350892, 2350893, 2350898
SM 2540 D-2011	08/19/2022			08/23/2022 13:01	Yijie Li	2350892, 2350893, 2350898
SM 4500-F- C-2011	08/19/2022			08/23/2022 20:08	Dale L. Simmons	2350893
	08/19/2022			08/23/2022 22:30	Dale L. Simmons	2350892
	08/19/2022			08/23/2022 22:39	Dale L. Simmons	2350898
SM 5310 B-2011	08/19/2022			08/29/2022 23:28	Khloe J Berg	2350894
	08/19/2022			08/29/2022 23:44	Khloe J Berg	2350895
	08/19/2022			08/29/2022 23:57	Khloe J Berg	2350899