

Chemical Analysis Report

CEN-DIST-2023-05-02-02

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

Event Description: **Lake Sunshine LVI**
Request ID: **RQ-2023-05-01-20**
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.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 24-MAY-2023 08:45

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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 SUNSHINE AT CENTER

Collection Date/Time: 05/01/2023 12:46

Field ID: G4CE0233

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2404436	DEP SOP: NU-094-1	Color (true)	15	A	PCU	P429269	
	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P429276	
	EPA 300.0 Rev. 2.1	Chloride	18	A	mg Cl/L	P429563	
		Sulfate	5.2	A	mg SO4/L	P429566	
	SM 2320 B-2011	Total Alkalinity	39		mg CaCO3/L	P429747	
	SM 2540 C-2015	TDS	93	A	mg/L	P429605	
	SM 2540 D-2015	TSS	4	IA	mg/L	P429606	
	SM 4500-F- C-2011	Fluoride	0.057	I	mg F/L	P429695	
2404437	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P429355	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P429624	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P429471	
	EPA 365.1 Rev. 2.0	Total-P	0.027		mg P/L	P429310	
	SM 5310 B-2011	Organic Carbon	8.0		mg C/L	P429459	
2404438	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P429261	
2404443	EPA 8321B	2,4-D	0.0052	I	ug/L	P429258	
		Acesulfame K	0.10	U	ug/L	P429244	
		2,4,5-T	0.0040	U	ug/L	P429258	
		AMPA	0.10	U	ug/L	P429244	
		Acetaminophen	0.0080	U	ug/L	P429258	
		Acetamiprid	0.0020	U	ug/L	P429258	
		Endothall	0.25	U	ug/L	P429244	
		Glufosinate	0.10	U	ug/L	P429244	
		Glyphosate	0.10	U	ug/L	P429244	
		Afidopyrophen	0.0020	U	ug/L	P429258	
		Bentazon	8.0E-04	U	ug/L	P429258	
		Sucralose	0.011	I	ug/L	P429244	
		Benzovindiflupyr	0.0020	U	ug/L	P429258	
		Carbamazepine	8.0E-04	U	ug/L	P429258	
		Clothianidin	0.0020	U	ug/L	P429258	
		Dinotefuran	0.0020	U	ug/L	P429258	
		Diuron	0.0020	U	ug/L	P429258	
		Fenuron	0.032	U	ug/L	P429258	
		Fluridone	0.0012	I	ug/L	P429258	
		Imazapyr	0.074		ug/L	P429258	
		Hydrocodone	0.0020	U	ug/L	P429258	
		Ibuprofen	0.080	U	ug/L	P429258	
		Imidacloprid	0.013		ug/L	P429258	
		Linuron	0.0040	U	ug/L	P429258	
		Mandestrobin	0.0020	U	ug/L	P429258	
		MCPP	0.0020	U	ug/L	P429258	
		Naproxen	0.0080	U	ug/L	P429258	
		Primidone	0.0040	U	ug/L	P429258	
		Pyraclostrobin	0.0020	U	ug/L	P429258	

Field ID: G4CE0233

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2404443	EPA 8321B	Silvex	0.0040	U	ug/L	P429258	
		Thiamethoxam	0.0020	U	ug/L	P429258	
		Tolfenpyrad	0.0020	U	ug/L	P429258	
		Triclopyr	0.0040	U	ug/L	P429258	
2404444	EPA 200.7 Rev. 4.4	Calcium	13.5		mg/L	P429322	
		Iron	30	U	ug/L	P429322	
		Magnesium	2.87		mg/L	P429322	
		Potassium	1.9		mg/L	P429322	
		Sodium	12.0		mg/L	P429322	
		Strontium	36.8		ug/L	P429322	
		Tin	3.0	U	ug/L	P429322	
		Titanium	0.75	U	ug/L	P429322	
		Vanadium	2.0	U	ug/L	P429322	
		Zinc	5.0	U	ug/L	P429322	
	EPA 200.8 Rev. 5.4	Aluminum	78		ug/L	P429322	
		Antimony	0.17	I	ug/L	P429322	
		Arsenic	0.94		ug/L	P429322	
		Barium	9.87		ug/L	P429322	
		Beryllium	0.010	U	ug/L	P429322	
		Boron	17.5		ug/L	P429322	
		Cadmium	0.020	U	ug/L	P429322	
		Chromium	0.40	U	ug/L	P429322	
		Cobalt	0.020	U	ug/L	P429322	
		Copper	5.21		ug/L	P429322	
		Lead	0.20	U	ug/L	P429322	
		Manganese	5.06		ug/L	P429322	
		Molybdenum	1.15		ug/L	P429322	
		Nickel	0.50	U	ug/L	P429322	
		Selenium	0.20	U	ug/L	P429322	
		Silver	0.010	U	ug/L	P429322	
		Thallium	0.10	U	ug/L	P429322	
		Hardness	45.6		mg/L	P429322	
2404446	SM 2340 B-2011	Oxybenzone**	11	U	ng/L	P429237	
	EPA 8270E	Acetochlor	0.22	U	ng/L	P429237	
		Octinoxate**	22	U	ng/L	P429237	
		Alachlor	0.43	U	ng/L	P429237	
		Avobenzone**	110	U	ng/L	P429237	RPD
		Ametryn	1.2	UJ	ng/L	P429237	LCS
		Atrazine	24		ng/L	P429237	
		PBDE-47**	4.3	U	ng/L	P429237	
		Atrazine Desethyl	5.2	I	ng/L	P429237	
		PBDE-99**	5.4	U	ng/L	P429237	RPD
		Azinphos Methyl	3.2	U	ng/L	P429237	
		Tri-o-cresyl Phosphate**	6.5	U	ng/L	P429237	
		Azoxystrobin	0.43	U	ng/L	P429237	

Field ID: G4CE0233

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2404446	EPA 8270E	Bromacil	0.65	U	ng/L	P429237	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P429237	RPD
		Butylate	0.22	U	ng/L	P429237	
		Dechlorane Plus**	32	U	ng/L	P429237	
		Caffeine**	8.1	U	ng/L	P429237	
		Dechlorane 602**	5.4	U	ng/L	P429237	RPD
		Carbophenothion	0.54	U	ng/L	P429237	
		Dechlorane 603**	4.3	U	ng/L	P429237	RPD
		Carfentrazone Ethyl	0.16	U	ng/L	P429237	
		Hexabromobenzene**	6.5	U	ng/L	P429237	
		Chlorfenapyr	0.32	U	ng/L	P429237	
		PBB-153**	8.6	U	ng/L	P429237	RPD
		Chlorpyrifos Ethyl	0.32	U	ng/L	P429237	
		Pentabromotoluene**	3.2	U	ng/L	P429237	
		Chlorpyrifos Methyl	0.11	U	ng/L	P429237	MS
		Tris(2-chloroethyl) phosphate (TCEP)**	76	U	ng/L	P429237	
		Coumaphos	1.1	U	ng/L	P429237	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	16	U	ng/L	P429237	MS, RPD
		Cyanazine	5.4	U	ng/L	P429237	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.7	U	ng/L	P429237	
		Cyprodinil	0.22	U	ng/L	P429237	
		Tetradecachloro-m-terphenyl**	8.1	U	ng/L	P429237	
		Demeton	3.8	U	ng/L	P429237	
		Diazinon	0.13	U	ng/L	P429237	
		Difenoconazole	0.65	U	ng/L	P429237	
		Dimethenamid	0.11	U	ng/L	P429237	
		Dimethomorph	0.32	U	ng/L	P429237	
		Disulfoton	0.65	U	ng/L	P429237	
		Dithiopyr	1.1	U	ng/L	P429237	
		EPTC	0.54	U	ng/L	P429237	
		Ethion	0.32	U	ng/L	P429237	
		Ethoprop	0.13	U	ng/L	P429237	
		Etridiazole	0.11	U	ng/L	P429237	
		Fenamiphos	0.49	U	ng/L	P429237	
		Fenbuconazole	0.54	U	ng/L	P429237	
		Fipronil	0.22	U	ng/L	P429237	
		Fipronil Desulfinyl**	0.16	I	ng/L	P429237	
		Fipronil Sulfide	0.22	I	ng/L	P429237	
		Fipronil Sulfone	0.32	I	ng/L	P429237	
		Fluazifop-P-butyl	0.11	U	ng/L	P429237	
		Fludioxonil	0.11	U	ng/L	P429237	
		Flumioxazin	3.2	U	ng/L	P429237	
		Flutolanil	0.11	U	ng/L	P429237	RPD
		Fluxapyroxad	0.27	U	ng/L	P429237	

Field ID: G4CE0233

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2404446	EPA 8270E	Fonofos	0.16	U	ng/L	P429237	MS, RPD
		Hexazinone	0.54	U	ng/L	P429237	
		Imazalil	0.70	U	ng/L	P429237	
		Iprodione	0.54	U	ng/L	P429237	
		Loratadine**	0.32	U	ng/L	P429237	
		Malathion	0.38	U	ng/L	P429237	MS
		Metalaxyl	0.54	U	ng/L	P429237	
		Metolachlor	0.81	U	ng/L	P429237	
		Metribuzin	0.43	U	ng/L	P429237	
		Mevinphos	1.1	U	ng/L	P429237	
		Molinate	0.27	U	ng/L	P429237	
		Myclobutanil	0.38	U	ng/L	P429237	
		Naled	2.7	U	ng/L	P429237	
		Napropamide	0.76	U	ng/L	P429237	
		Norflurazon	1.1	U	ng/L	P429237	
		Oxadiazon	0.69	I	ng/L	P429237	
		Oxyfluorfen	0.22	U	ng/L	P429237	
		Parathion Ethyl	0.16	U	ng/L	P429237	
		Parathion Methyl	0.22	U	ng/L	P429237	
		Pendimethalin	0.81	UJ	ng/L	P429237	CCV
		Phenytol**	5.7	U	ng/L	P429237	
		Phorate	0.27	U	ng/L	P429237	
		Prodiamine	0.22	UJ	ng/L	P429237	CCV
		Prometon	3.2	U	ng/L	P429237	
		Prometryn	0.38	U	ng/L	P429237	
		Pronamide	0.11	U	ng/L	P429237	
		Propanil	0.11	U	ng/L	P429237	
		Propargite	0.86	U	ng/L	P429237	
		Propiconazole	0.65	U	ng/L	P429237	
		Pyraflufen Ethyl	0.32	U	ng/L	P429237	
		Pyridaben	1.5	U	ng/L	P429237	
		Pyriproxyfen	0.27	U	ng/L	P429237	
		Simazine	0.27	U	ng/L	P429237	
		Stirophos	0.43	U	ng/L	P429237	
		Sulfentrazone	1.5	UJ	ng/L	P429237	CCV
		Tebuconazole	1.5	U	ng/L	P429237	
		Terbufos	0.22	U	ng/L	P429237	
		Terbuthylazine	0.22	U	ng/L	P429237	
		Thiobencarb	0.54	U	ng/L	P429237	
		Triadimefon	0.16	U	ng/L	P429237	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: The copper result was confirmed in the undigested sample on 05/10/2023.

EPA 8270E: MS accuracy for oxadiazon not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: FB

Collection Date/Time: 05/01/2023 13:30

Field ID: FB_05012023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2404439	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P429269	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P429276	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P429563	
		Sulfate	0.20	U	mg SO4/L	P429566	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P429747	
	SM 2540 C-2015	TDS	15	U	mg/L	P429605	
	SM 2540 D-2015	TSS	2	U	mg/L	P429606	
2404440	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P429695	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P429355	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P429624	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P429471	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P429310	
2404441	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P429459	
2404445	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P429261	
2404445	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P429322	
		Iron	30	U	ug/L	P429322	
		Magnesium	0.040	U	mg/L	P429322	
		Potassium	0.30	U	mg/L	P429322	
		Sodium	0.50	U	mg/L	P429322	
		Strontium	2.0	U	ug/L	P429322	
		Tin	3.0	U	ug/L	P429322	
	EPA 200.8 Rev. 5.4	Titanium	0.75	U	ug/L	P429322	
		Vanadium	2.0	U	ug/L	P429322	
		Zinc	5.0	U	ug/L	P429322	
		Aluminum	5.0	U	ug/L	P429322	
		Antimony	0.050	U	ug/L	P429322	
		Arsenic	0.050	U	ug/L	P429322	
		Barium	0.20	U	ug/L	P429322	
		Beryllium	0.010	U	ug/L	P429322	
		Boron	2.0	U	ug/L	P429322	
		Cadmium	0.020	U	ug/L	P429322	
		Chromium	0.40	U	ug/L	P429322	
		Cobalt	0.020	U	ug/L	P429322	
		Copper	0.40	U	ug/L	P429322	
		Lead	0.20	U	ug/L	P429322	
		Manganese	0.10	U	ug/L	P429322	
		Molybdenum	0.15	U	ug/L	P429322	
		Nickel	0.50	U	ug/L	P429322	
		Selenium	0.20	U	ug/L	P429322	
		Silver	0.010	U	ug/L	P429322	
		Thallium	0.10	U	ug/L	P429322	

Ref. Method and Comment:

SM 2540 D-2015: 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: P429269

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429276

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429322

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: P429322

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: P429563

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: P429566

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429355

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429624

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429471

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429261

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

Reference Method: EPA 8270E
Batch ID: P429237

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429237

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429237

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429237

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P429237

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

Reference Method: EPA 8321B

Batch ID: P429244

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

Reference Method: EPA 8321B

Batch ID: P429258

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P429258

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

Reference Method: SM 2320 B-2011

Batch ID: P429747

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

Reference Method: SM 2540 C-2015

Batch ID: P429605

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P429606

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P429695

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P429459

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: P429269

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.1		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429276

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	103		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	96.8		P	85 - 115
Strontium	100		P	85 - 115
Tin	100		P	85 - 115
Titanium	98.9		P	85 - 115
Vanadium	98.6		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	80 - 120
Antimony	101		P	80 - 120
Arsenic	98.9		P	80 - 120
Barium	102		P	80 - 120
Beryllium	92.1		P	80 - 120
Boron	105		P	80 - 120
Cadmium	98.9		P	80 - 120
Chromium	99.1		P	80 - 120
Cobalt	96.8		P	80 - 120
Copper	99.0		P	80 - 120
Lead	93.2		P	80 - 120
Manganese	100		P	80 - 120
Molybdenum	98.1		P	80 - 120
Nickel	98.0		P	80 - 120
Selenium	97.9		P	80 - 120
Silver	99.5		P	80 - 120
Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429563

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429566

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429355

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429624

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429471

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429261

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

Reference Method: EPA 8270E
Batch ID: P429237

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	70.6		P	42 - 162
Acetochlor	73.4		P	69 - 123
Alachlor	88.3		P	65 - 118
Ametryn	150		F	58 - 141
Atrazine	101		P	73 - 118
Atrazine Desethyl	123		P	32 - 125
Avobenzone	99.8		P	40 - 203
Azinphos Methyl	84.2		P	36 - 197
Azoxystrobin	79.2		P	58 - 226
Bromacil	110		P	48 - 120
Butylate	70.9		P	27 - 85.0
Caffeine	106		P	40 - 137
Carbophenothion	107		P	54 - 132
Carfentrazone Ethyl	114		P	60 - 142
Chlorfenapyr	77.4		P	53 - 117
Chlorpyrifos Ethyl	92.9		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P429237

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	90.8		P	66 - 119
Coumaphos	48.1		P	11 - 234
Cyanazine	127		P	61 - 248
Cyprodinil	92.5		P	50 - 147
Dechlorane 602	72.6		P	50 - 150
Dechlorane 603	87.3		P	50 - 150
Dechlorane Plus	102		P	47 - 182
Demeton	82.5		P	30 - 138
Diazinon	115		P	67 - 126
Difenoconazole	38.1		P	38 - 205
Dimethenamid	98.4		P	57 - 111
Dimethomorph	151		P	16 - 212
Disulfoton	117		P	46 - 126
Dithiopyr	107		P	62 - 115
EPTC	68.6		P	28 - 80.0
Ethion	81.7		P	24 - 122
Ethoprop	100		P	62 - 113
Etridiazole	84.6		P	28 - 92.0
Fenamiphos	79.3		P	57 - 128
Fenbuconazole	96.3		P	52 - 155
Fipronil	101		P	63 - 130
Fipronil Desulfinyl	98.9		P	61 - 130
Fipronil Sulfide	104		P	56 - 117
Fipronil Sulfone	92.2		P	52 - 118
Fluazifop-P-butyl	69.4		P	61 - 128
Fludioxonil	72.6		P	59 - 129
Flumioxazin	65.5		P	30 - 250
Flutolanil	84.5		P	53 - 127
Fluxapyroxad	85.0		P	42 - 132
Fonofos	103		P	61 - 110
Hexabromobenzene	101		P	50 - 150
Hexazinone	94.8		P	46 - 139
Imazalil	43.9		P	40 - 139
Iprodione	63.2		P	40 - 146
Loratadine	59.9		P	10 - 224
Malathion	76.9		P	61 - 135
Metaxyl	91.9		P	58 - 121
Metolachlor	100		P	64 - 118
Metribuzin	103		P	45 - 245
Mevinphos	95.3		P	49 - 118
Molinate	67.8		P	42 - 92.0
Myclobutanil	93.1		P	55 - 127
Naled	42.2		P	10 - 114
Napropamide	76.2		P	39 - 121
Norflurazon	82.0		P	55 - 129
Octinoxate	104		P	26 - 166
Oxadiazon	86.5		P	54 - 115
Oxybenzone	106		P	49 - 135
Oxyfluorfen	94.4		P	64 - 139
Parathion Ethyl	102		P	70 - 111
Parathion Methyl	97.4		P	76 - 136
PBB-153	83.3		P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P429237

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	91.8		P	41 - 148
PBDE-99	68.5		P	38 - 147
Pendimethalin	110		P	52 - 118
Pentabromotoluene	96.2		P	50 - 150
Phenytoin	63.0		P	10 - 162
Phorate	115		P	40 - 122
Prodiamine	76.9		P	26 - 141
Prometon	117		P	54 - 122
Prometryn	88.9		P	61 - 128
Pronamide	96.4		P	72 - 121
Propanil	108		P	45 - 144
Propargite	90.7		P	10 - 199
Propiconazole	61.3		P	56 - 127
Pyraflufen Ethyl	72.4		P	56 - 140
Pyridaben	36.7		P	26 - 211
Pyriproxyfen	86.9		P	33 - 194
Simazine	89.6		P	67 - 121
Stirophos	85.4		P	20 - 142
Sulfentrazone	66.5		P	21 - 144
Tebuconazole	76.9		P	10 - 122
Terbufos	103		P	60 - 129
Terbutylazine	89.2		P	69 - 113
Tetradecachloro-m-terphenyl	140		P	70 - 200
Thiobencarb	114		P	51 - 120
Tri-o-cresyl Phosphate	98.7		P	49 - 150
Triadimefon	104		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	130		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	93.7		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	105		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P429244

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	107		P	40 - 150
AMPA	97.1		P	40 - 150
Endothall	81.3		P	40 - 150
Glufosinate	81.9		P	40 - 150
Glyphosate	97.4		P	40 - 150
Sucralose	96.6		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P429258

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	85.2		P	40 - 150
2,4,5-T	83.2		P	40 - 150
Acetaminophen	78.2		P	30 - 150
Acetamiprid	79.9		P	40 - 150
Afidopyropen	49.8		P	30 - 150
Bentazon	141		P	30 - 150
Benzovindiflupyr	81.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P429258

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	83.9		P	40 - 150
Clothianidin	86.8		P	40 - 150
Dinotefuran	105		P	40 - 150
Diuron	77.1		P	40 - 150
Fenuron	87.0		P	40 - 150
Fluridone	77.1		P	40 - 150
Hydrocodone	86.5		P	40 - 150
Ibuprofen	91.0		P	40 - 150
Imazapyr	84.2		P	40 - 150
Imidacloprid	83.9		P	40 - 150
Linuron	81.2		P	40 - 150
Mandestrobin	86.4		P	40 - 150
MCPP	87.7		P	40 - 150
Naproxen	77.0		P	40 - 150
Primidone	85.2		P	40 - 150
Pyraclostrobin	85.6		P	40 - 150
Silvex	81.7		P	40 - 150
Thiamethoxam	88.4		P	40 - 150
Tolfenpyrad	55.3		P	30 - 150
Triclopyr	85.9		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P429747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.0		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P429605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	95.4		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P429606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.7		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P429695

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P429459

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P429322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404444	Calcium	102		P	80 - 120
2404444	Iron	106	105	P/P	80 - 120
2404444	Magnesium	103	102	P/P	80 - 120
2404444	Potassium	104	105	P/P	80 - 120
2404444	Sodium	98.3		P	80 - 120
2404444	Strontium	103	102	P/P	80 - 120
2404444	Tin	103	102	P/P	80 - 120
2404444	Titanium	104	103	P/P	80 - 120
2404444	Vanadium	105	104	P/P	80 - 120
2404444	Zinc	106	104	P/P	80 - 120
2404905	Calcium	103		P	80 - 120
2404905	Iron	106		P	80 - 120
2404905	Magnesium	102		P	80 - 120
2404905	Potassium	106		P	80 - 120
2404905	Sodium	99.5		P	80 - 120
2404905	Strontium	102		P	80 - 120
2404905	Tin	99.8		P	80 - 120
2404905	Titanium	103		P	80 - 120
2404905	Vanadium	102		P	80 - 120
2404905	Zinc	100		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404444	Aluminum	99.1	100	P/P	80 - 120
2404444	Antimony	100	102	P/P	80 - 120
2404444	Arsenic	100	102	P/P	80 - 120
2404444	Barium	101	102	P/P	80 - 120
2404444	Beryllium	95.3	101	P/P	80 - 120
2404444	Boron	102	105	P/P	80 - 120
2404444	Cadmium	100	100	P/P	80 - 120
2404444	Chromium	96.9	98.6	P/P	80 - 120
2404444	Cobalt	96.5	98.8	P/P	80 - 120
2404444	Copper	99.7	101	P/P	80 - 120
2404444	Lead	94.4	95.5	P/P	80 - 120
2404444	Manganese	99.2	100	P/P	80 - 120
2404444	Molybdenum	99.5	100	P/P	80 - 120
2404444	Nickel	97.5	98.8	P/P	80 - 120
2404444	Selenium	99.2	100	P/P	80 - 120
2404444	Silver	98.2	98.0	P/P	80 - 120
2404444	Thallium	104	105	P/P	80 - 120
2404905	Aluminum	102		P	80 - 120
2404905	Antimony	102		P	80 - 120
2404905	Arsenic	99.6		P	80 - 120
2404905	Barium	102		P	80 - 120
2404905	Beryllium	96.9		P	80 - 120
2404905	Boron	109		P	80 - 120
2404905	Cadmium	102		P	80 - 120
2404905	Chromium	102		P	80 - 120
2404905	Cobalt	97.3		P	80 - 120
2404905	Copper	98.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404905	Lead	95.0		P	80 - 120
2404905	Manganese	102		P	80 - 120
2404905	Molybdenum	101		P	80 - 120
2404905	Nickel	99.4		P	80 - 120
2404905	Selenium	97.8		P	80 - 120
2404905	Silver	100		P	80 - 120
2404905	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404436	Chloride	98.6		P	90 - 110
2404637	Chloride	98.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429566

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404436	Sulfate	99.1		P	90 - 110
2404637	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429355

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404437	Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429624

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404437	Kjeldahl Nitrogen	95.1	98.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429471

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404391	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404437	Total-P	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404438	O-Phosphate-P	98.9	99.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P429237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404643	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	72.0	109	P/P	26 - 165
2404643	Acetochlor	83.9	110	P/P	67 - 124
2404643	Alachlor	109	106	P/P	60 - 120
2404643	Ametryn	134	128	P/P	54 - 216
2404643	Atrazine	87.1	103	P/P	66 - 128
2404643	Atrazine Desethyl	107	109	P/P	15 - 122
2404643	Avobenzone	98.0	165	P/P	37 - 178
2404643	Azinphos Methyl	43.1	83.3	P/P	40 - 292
2404643	Azoxystrobin	80.7	112	P/P	35 - 220
2404643	Bromacil	84.2	110	P/P	45 - 127
2404643	Butylate	64.6	56.4	P/P	20 - 83.0
2404643	Caffeine	76.3	81.5	P/P	10 - 194
2404643	Carbophenothion	92.3	115	P/P	57 - 127
2404643	Carfentrazone Ethyl	90.8	117	P/P	51 - 141
2404643	Chlorfenapyr	55.5	70.0	P/P	46 - 111
2404643	Chlorpyrifos Ethyl	67.2	69.3	P/P	52 - 120
2404643	Chlorpyrifos Methyl	57.9	62.9	F/F	63 - 119
2404643	Coumaphos	107	119	P/P	10 - 228
2404643	Cyanazine	109	130	P/P	59 - 241
2404643	Cyprodinil	65.8	86.1	P/P	47 - 146
2404643	Dechlorane 602	61.2	86.0	P/P	50 - 150
2404643	Dechlorane 603	81.1	117	P/P	50 - 150
2404643	Dechlorane Plus	104	89.5	P/P	50 - 150
2404643	Demeton	81.2	86.6	P/P	40 - 136
2404643	Diazinon	95.5	117	P/P	69 - 132
2404643	Difenoconazole	106	89.3	P/P	57 - 258
2404643	Dimethenamid	80.2	101	P/P	54 - 110
2404643	Dimethomorph	158	148	P/P	28 - 210
2404643	Disulfoton	105	122	P/P	43 - 133
2404643	Dithiopyr	82.0	94.8	P/P	39 - 116
2404643	EPTC	59.5	53.1	P/P	20 - 78.0
2404643	Ethion	87.8	106	P/P	17 - 119
2404643	Ethoprop	88.0	97.9	P/P	66 - 120
2404643	Etridiazole	80.7	72.9	P/P	28 - 96.0
2404643	Fenamiphos	103	102	P/P	41 - 126
2404643	Fenbuconazole	67.1	99.9	P/P	42 - 169
2404643	Fipronil	85.4	81.7	P/P	61 - 132
2404643	Fipronil Desulfinyl	74.5	98.3	P/P	56 - 132
2404643	Fipronil Sulfide	77.5	93.3	P/P	48 - 119
2404643	Fipronil Sulfone	80.3	91.9	P/P	42 - 131
2404643	Fluazifop-P-butyl	77.3	68.1	P/P	53 - 131
2404643	Fludioxonil	65.7	80.2	P/P	56 - 127
2404643	Flumioxazin	80.4	90.6	P/P	19 - 300
2404643	Flutolanil	75.1	109	P/P	41 - 127
2404643	Fluxapyroxad	79.6	88.2	P/P	42 - 172
2404643	Fonofos	69.0	46.3	P/F	59 - 113
2404643	Hexabromobenzene	104	123	P/P	50 - 150
2404643	Hexazinone	87.4	97.1	P/P	66 - 122
2404643	Imazalil	66.2	69.4	P/P	21 - 283
2404643	Iprodione	108	101	P/P	43 - 150
2404643	Loratadine	114	127	P/P	23 - 201
2404643	Malathion	167	208	F/F	58 - 136

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P429237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404643	Metalaxyl	100	99.2	P/P	55 - 120
2404643	Metolachlor	81.1	89.8	P/P	57 - 121
2404643	Metribuzin	102	101	P/P	58 - 294
2404643	Mevinphos	81.3	109	P/P	50 - 126
2404643	Molinate	59.3	60.6	P/P	42 - 93.0
2404643	Myclobutanil	91.5	97.0	P/P	55 - 125
2404643	Naled	31.6	36.4	P/P	18 - 200
2404643	Napropamide	57.8	74.5	P/P	39 - 110
2404643	Norflurazon	93.1	95.7	P/P	48 - 128
2404643	Octinoxate	101	114	P/P	21 - 159
2404643	Oxybenzone	104	123	P/P	41 - 142
2404643	Oxyfluorfen	85.3	103	P/P	64 - 153
2404643	Parathion Ethyl	98.9	97.1	P/P	69 - 114
2404643	Parathion Methyl	104	105	P/P	79 - 139
2404643	PBB-153	77.3	130	P/P	50 - 150
2404643	PBDE-47	84.8	101	P/P	27 - 144
2404643	PBDE-99	57.2	91.1	P/P	18 - 150
2404643	Pendimethalin	96.5	114	P/P	50 - 139
2404643	Pentabromotoluene	97.7	111	P/P	50 - 150
2404643	Phenytoin	40.0	56.4	P/P	10 - 146
2404643	Phorate	109	118	P/P	54 - 161
2404643	Prodiamine	60.0	67.3	P/P	30 - 161
2404643	Prometon	97.5	110	P/P	45 - 134
2404643	Prometryn	81.4	96.4	P/P	45 - 137
2404643	Pronamide	76.2	96.7	P/P	65 - 133
2404643	Propanil	92.0	109	P/P	49 - 142
2404643	Propargite	42.4	63.2	P/P	10 - 203
2404643	Propiconazole	67.7	75.0	P/P	38 - 146
2404643	Pyraflufen Ethyl	62.0	47.4	P/P	34 - 153
2404643	Pyridaben	62.7	70.2	P/P	12 - 192
2404643	Pyriproxyfen	49.0	87.3	P/P	33 - 180
2404643	Simazine	80.4	97.2	P/P	51 - 157
2404643	Stiropfos	72.7	82.8	P/P	10 - 128
2404643	Sulfentrazone	57.9	64.6	P/P	53 - 186
2404643	Tebuconazole	57.1	64.6	P/P	10 - 133
2404643	Terbufos	85.7	109	P/P	65 - 139
2404643	Terbutylazine	71.8	95.2	P/P	66 - 117
2404643	Tetradecachloro-m-terphenyl	151	183	P/P	70 - 200
2404643	Thiobencarb	92.3	104	P/P	51 - 119
2404643	Tri-o-cresyl Phosphate	96.1	115	P/P	31 - 144
2404643	Triadimefon	96.6	109	P/P	48 - 119
2404643	Tris(1-chloro-2-propyl) phosphate (TCPP)	150	84.9	F/P	50 - 150
2404643	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	89.2	101	P/P	50 - 150
2404643	Tris(2-chloroethyl) phosphate (TCEP)	101	107	P/P	70 - 180

Reference Method: EPA 8321B

Batch ID: P429244

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404443	Acesulfame K	129	130	P/P	40 - 150
2404443	AMPA	87.0	94.2	P/P	40 - 150
2404443	Endothall	85.3	83.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P429244

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404443	Glufosinate	84.9	85.0	P/P	40 - 150
2404443	Glyphosate	97.6	92.2	P/P	40 - 150
2404443	Sucralose	107	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P429258

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2403675	2,4-D	104	111	P/P	40 - 150
2403675	2,4,5-T	108	105	P/P	40 - 150
2403675	Acetaminophen	84.2	87.7	P/P	30 - 150
2403675	Acetamiprid	84.2	78.9	P/P	40 - 150
2403675	Afidopyropen	92.3	88.5	P/P	30 - 150
2403675	Benzovindiflupyr	80.6	80.2	P/P	40 - 150
2403675	Carbamazepine	71.6	67.3	P/P	40 - 150
2403675	Clothianidin	105	104	P/P	40 - 150
2403675	Dinotefuran	104	102	P/P	40 - 150
2403675	Diuron	65.6	62.4	P/P	40 - 150
2403675	Fenuron	63.5	63.4	P/P	40 - 150
2403675	Fluridone	61.3	62.1	P/P	40 - 150
2403675	Hydrocodone	71.9	69.9	P/P	40 - 150
2403675	Ibuprofen	60.5	52.8	P/P	40 - 150
2403675	Imazapyr	105	108	P/P	40 - 150
2403675	Imidacloprid	115	116	P/P	40 - 150
2403675	Linuron	70.3	67.5	P/P	40 - 150
2403675	Mandestrobin	77.7	79.5	P/P	40 - 150
2403675	MCPP	121	106	P/P	40 - 150
2403675	Naproxen	57.1	56.0	P/P	40 - 150
2403675	Primidone	96.7	97.0	P/P	40 - 150
2403675	Pyraclostrobin	81.5	76.8	P/P	40 - 150
2403675	Silvex	114	118	P/P	40 - 150
2403675	Thiamethoxam	101	99.4	P/P	40 - 150
2403675	Tolfenpyrad	54.5	49.3	P/P	30 - 150
2403675	Triclopyr	101	105	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P429695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404876	Fluoride	101	101	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P429459

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2404437	Organic Carbon	95.8	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P429269

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404436	Color (true)	5.26	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404542	Turbidity	13.3	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404444	Calcium	0.936	Spike	P	0 - 20
2404444	Iron	1.20	Spike	P	0 - 20
2404444	Magnesium	0.891	Spike	P	0 - 20
2404444	Potassium	0.149	Spike	P	0 - 20
2404444	Sodium	0.658	Spike	P	0 - 20
2404444	Strontium	0.916	Spike	P	0 - 20
2404444	Tin	0.886	Spike	P	0 - 20
2404444	Titanium	1.46	Spike	P	0 - 20
2404444	Vanadium	1.46	Spike	P	0 - 20
2404444	Zinc	1.12	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404444	Aluminum	0.896	Spike	P	0 - 20
2404444	Antimony	1.56	Spike	P	0 - 20
2404444	Arsenic	1.61	Spike	P	0 - 20
2404444	Barium	0.897	Spike	P	0 - 20
2404444	Beryllium	6.10	Spike	P	0 - 20
2404444	Boron	2.26	Spike	P	0 - 20
2404444	Cadmium	0.199	Spike	P	0 - 20
2404444	Chromium	1.67	Spike	P	0 - 20
2404444	Cobalt	2.43	Spike	P	0 - 20
2404444	Copper	0.956	Spike	P	0 - 20
2404444	Lead	1.16	Spike	P	0 - 20
2404444	Manganese	0.798	Spike	P	0 - 20
2404444	Molybdenum	0.473	Spike	P	0 - 20
2404444	Nickel	1.34	Spike	P	0 - 20
2404444	Selenium	1.11	Spike	P	0 - 20
2404444	Silver	0.195	Spike	P	0 - 20
2404444	Thallium	1.06	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404436	Chloride	0.0860	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404436	Sulfate	0.310	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429355

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404437	Ammonia-N	1.32	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404437	Kjeldahl Nitrogen	2.04	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404391	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404437	Total-P	0.0672	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404438	O-Phosphate-P	0.705	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P429237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404643	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	41.0	Spike	F	0 - 37
2404643	Acetochlor	26.6	Spike	P	0 - 28

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P429237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404643	Alachlor	3.27	Spike	P	0 - 30
2404643	Ametryn	4.69	Spike	P	0 - 32
2404643	Atrazine	10.5	Spike	P	0 - 41
2404643	Atrazine Desethyl	2.01	Spike	P	0 - 36
2404643	Avobenzone	50.7	Spike	F	0 - 36
2404643	Azinphos Methyl	51.0	Spike	P	0 - 75
2404643	Azoxystrobin	32.4	Spike	P	0 - 39
2404643	Bromacil	26.4	Spike	P	0 - 33
2404643	Butylate	13.6	Spike	P	0 - 44
2404643	Caffeine	1.15	Spike	P	0 - 74
2404643	Carbophenothion	21.7	Spike	P	0 - 25
2404643	Carfentrazone Ethyl	24.9	Spike	P	0 - 27
2404643	Chlorfenapyr	23.0	Spike	P	0 - 24
2404643	Chlorpyrifos Ethyl	3.09	Spike	P	0 - 26
2404643	Chlorpyrifos Methyl	8.24	Spike	P	0 - 26
2404643	Coumaphos	10.9	Spike	P	0 - 28
2404643	Cyanazine	17.1	Spike	P	0 - 48
2404643	Cyprodinil	26.7	Spike	P	0 - 29
2404643	Dechlorane 602	33.7	Spike	F	0 - 30
2404643	Dechlorane 603	36.2	Spike	F	0 - 30
2404643	Dechlorane Plus	14.7	Spike	P	0 - 30
2404643	Demeton	6.44	Spike	P	0 - 33
2404643	Diazinon	20.4	Spike	P	0 - 29
2404643	Difenoconazole	17.4	Spike	P	0 - 34
2404643	Dimethenamid	23.0	Spike	P	0 - 39
2404643	Dimethomorph	6.31	Spike	P	0 - 51
2404643	Disulfoton	15.1	Spike	P	0 - 30
2404643	Dithiopyr	12.7	Spike	P	0 - 26
2404643	EPTC	11.3	Spike	P	0 - 43
2404643	Ethion	18.8	Spike	P	0 - 79
2404643	Ethoprop	10.6	Spike	P	0 - 29
2404643	Etridiazole	10.2	Spike	P	0 - 33
2404643	Fenamiphos	1.59	Spike	P	0 - 40
2404643	Fenbuconazole	39.2	Spike	P	0 - 74
2404643	Fipronil	4.49	Spike	P	0 - 29
2404643	Fipronil Desulfinyl	24.5	Spike	P	0 - 32
2404643	Fipronil Sulfide	17.3	Spike	P	0 - 30
2404643	Fipronil Sulfone	11.7	Spike	P	0 - 33
2404643	Fluazifop-P-butyl	12.5	Spike	P	0 - 38
2404643	Fludioxonil	19.8	Spike	P	0 - 29
2404643	Flumioxazin	11.9	Spike	P	0 - 51
2404643	Flutolanil	36.8	Spike	F	0 - 25
2404643	Fluxapyroxad	10.3	Spike	P	0 - 45
2404643	Fonofos	39.4	Spike	F	0 - 27
2404643	Hexabromobenzene	16.8	Spike	P	0 - 30
2404643	Hexazinone	10.6	Spike	P	0 - 30
2404643	Imazalil	4.70	Spike	P	0 - 100
2404643	Iprodione	6.92	Spike	P	0 - 33
2404643	Loratadine	10.3	Spike	P	0 - 56
2404643	Malathion	21.9	Spike	P	0 - 37
2404643	Metalaxyl	0.793	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P429237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404643	Metolachlor	10.2	Spike	P	0 - 29
2404643	Metribuzin	0.817	Spike	P	0 - 45
2404643	Mevinphos	28.8	Spike	P	0 - 29
2404643	Molinate	2.08	Spike	P	0 - 33
2404643	Myclobutanil	5.86	Spike	P	0 - 26
2404643	Naled	14.1	Spike	P	0 - 37
2404643	Napropamide	25.2	Spike	P	0 - 44
2404643	Norflurazon	2.72	Spike	P	0 - 30
2404643	Octinoxate	11.5	Spike	P	0 - 45
2404643	Oxadiazon	10.7	Spike	P	0 - 28
2404643	Oxybenzone	17.0	Spike	P	0 - 46
2404643	Oxyfluorfen	19.1	Spike	P	0 - 28
2404643	Parathion Ethyl	1.84	Spike	P	0 - 31
2404643	Parathion Methyl	1.20	Spike	P	0 - 29
2404643	PBB-153	50.8	Spike	F	0 - 30
2404643	PBDE-47	17.7	Spike	P	0 - 36
2404643	PBDE-99	45.8	Spike	F	0 - 40
2404643	Pendimethalin	16.8	Spike	P	0 - 33
2404643	Pentabromotoluene	12.4	Spike	P	0 - 30
2404643	Phenytoin	20.9	Spike	P	0 - 100
2404643	Phorate	7.61	Spike	P	0 - 36
2404643	Prodiamine	11.5	Spike	P	0 - 71
2404643	Prometon	11.8	Spike	P	0 - 36
2404643	Prometryn	16.9	Spike	P	0 - 28
2404643	Pronamide	23.7	Spike	P	0 - 24
2404643	Propanil	16.9	Spike	P	0 - 28
2404643	Propargite	31.5	Spike	P	0 - 43
2404643	Propiconazole	10.2	Spike	P	0 - 33
2404643	Pyraflufen Ethyl	26.7	Spike	P	0 - 29
2404643	Pyridaben	11.3	Spike	P	0 - 30
2404643	Pyriproxyfen	49.7	Spike	P	0 - 79
2404643	Simazine	18.9	Spike	P	0 - 29
2404643	Stirophos	13.0	Spike	P	0 - 61
2404643	Sulfentrazone	10.8	Spike	P	0 - 33
2404643	Tebuconazole	12.4	Spike	P	0 - 69
2404643	Terbufos	23.5	Spike	P	0 - 29
2404643	Terbuthylazine	28.0	Spike	P	0 - 32
2404643	Tetradecachloro-m-terphenyl	18.8	Spike	P	0 - 30
2404643	Thiobencarb	12.2	Spike	P	0 - 26
2404643	Tri-o-cresyl Phosphate	18.1	Spike	P	0 - 33
2404643	Triadimefon	12.4	Spike	P	0 - 28
2404643	Tris(1-chloro-2-propyl) phosphate (TCPP)	50.0	Spike	F	0 - 30
2404643	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	11.8	Spike	P	0 - 30
2404643	Tris(2-chloroethyl) phosphate (TCEP)	5.95	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P429244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404443	Acesulfame K	0.713	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P429244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404443	AMPA	7.95	Spike	P	0 - 30
2404443	Endothall	2.43	Spike	P	0 - 30
2404443	Glufosinate	0.0367	Spike	P	0 - 30
2404443	Glyphosate	5.66	Spike	P	0 - 30
2404443	Sucralose	5.67	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P429258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2403675	2,4-D	6.31	Spike	P	0 - 30
2403675	2,4,5-T	3.12	Spike	P	0 - 30
2403675	Acetaminophen	4.06	Spike	P	0 - 30
2403675	Acetamiprid	6.41	Spike	P	0 - 30
2403675	Afidopyropen	4.21	Spike	P	0 - 30
2403675	Bentazon	10.9	Spike	P	0 - 30
2403675	Benzovindiflupyr	0.506	Spike	P	0 - 30
2403675	Carbamazepine	5.81	Spike	P	0 - 30
2403675	Clothianidin	1.03	Spike	P	0 - 30
2403675	Dinotefuran	2.22	Spike	P	0 - 30
2403675	Diuron	4.96	Spike	P	0 - 30
2403675	Fenuron	0.219	Spike	P	0 - 30
2403675	Fluridone	1.19	Spike	P	0 - 30
2403675	Hydrocodone	2.95	Spike	P	0 - 30
2403675	Ibuprofen	13.7	Spike	P	0 - 30
2403675	Imazapyr	2.30	Spike	P	0 - 30
2403675	Imidacloprid	0.536	Spike	P	0 - 30
2403675	Linuron	4.04	Spike	P	0 - 30
2403675	Mandestrobin	2.35	Spike	P	0 - 30
2403675	MCP	12.5	Spike	P	0 - 30
2403675	Naproxen	1.85	Spike	P	0 - 30
2403675	Primidone	0.400	Spike	P	0 - 30
2403675	Pyraclostrobin	6.03	Spike	P	0 - 30
2403675	Silvex	3.21	Spike	P	0 - 30
2403675	Thiamethoxam	1.96	Spike	P	0 - 30
2403675	Tolfenpyrad	10.0	Spike	P	0 - 30
2403675	Triclopyr	4.08	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P429747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2405038	Total Alkalinity	1.31	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P429605

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

Reference Method: SM 2540 C-2015
Batch ID: P429605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404436	TDS	2.15	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P429695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404876	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P429459

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2404437	Organic Carbon	5.44	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2404443

Field Sample ID: G4CE0233

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.8	P	30 - 160
EPA 8321B	Diuron-d6	58.5	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.7	P	30 - 160
EPA 8321B	Primidone-d5	83.5	P	30 - 160
EPA 8321B	Sucralose-d6	126	P	30 - 160

Lab Sample ID: 2404446

Field Sample ID: G4CE0233

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	87.2	P	20 - 200
EPA 8270E	Simazine-d10	85.5	P	62 - 142
EPA 8270E	Terbufos-d10	92.6	P	58 - 132
EPA 8270E	Terphenyl-d14	83.2	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A118907

Included Lab Sample IDs: 2404438, 2404441

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

Reference Method: DEP SOP: NU-094-1

Run ID: A118912

Included Lab Sample IDs: 2404436, 2404439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118913

Included Lab Sample IDs: 2404436, 2404439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118939

Included Lab Sample IDs: 2404437, 2404440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	99.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118946

Included Lab Sample IDs: 2404444, 2404445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	103	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	99.7	101	P/P	90 - 110
Barium	99.6	99.5	P/P	90 - 110
Boron	101	104	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Cobalt	97.6	98.9	P/P	90 - 110
Copper	98.6	100	P/P	90 - 110
Lead	92.8	93.4	P/P	90 - 110
Manganese	99.9	99.8	P/P	90 - 110
Molybdenum	99.4	99.7	P/P	90 - 110
Nickel	98.7	99.5	P/P	90 - 110
Selenium	101	99.1	P/P	90 - 110
Silver	99.0	99.1	P/P	90 - 110
Thallium	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118957

Included Lab Sample IDs: 2404437, 2404440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118965
Included Lab Sample IDs: 2404446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	104		P	80 - 120
Avobenzene	108		P	80 - 120
Dechlorane 602	102		P	80 - 120
Dechlorane 603	103		P	80 - 120
Dechlorane Plus	94.3		P	80 - 120
Hexabromobenzene	104		P	80 - 120
Octinoxate	99.3		P	80 - 120
Oxybenzone	98.6		P	80 - 120
PBB-153	103		P	80 - 120
PBDE-47	100		P	80 - 120
PBDE-99	102		P	80 - 120
Pentabromotoluene	99.8		P	80 - 120
Tetradecachloro-m-terphenyl	105		P	80 - 120
Tri-o-cresyl Phosphate	101		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	86.4		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.8		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	90.2		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A118966
Included Lab Sample IDs: 2404444, 2404445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	98.9	97.9	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A118972
Included Lab Sample IDs: 2404437, 2404440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	103	P/P	90 - 110
Organic Carbon	93.8	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A118973
Included Lab Sample IDs: 2404437, 2404440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A118978
Included Lab Sample IDs: 2404443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.7	93.7	P/P	50 - 150
2,4,5-T	103	95.7	P/P	50 - 150
Acetaminophen	85.2	84.3	P/P	60 - 160
Acetamiprid	109	107	P/P	50 - 150
Afidopyropen	93.4	120	P/P	50 - 150
Bentazon	120	124	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A118978
Included Lab Sample IDs: 2404443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	99.3	101	P/P	50 - 150
Carbamazepine	108	102	P/P	60 - 150
Clothianidin	98.8	104	P/P	60 - 150
Dinotefuran	119	121	P/P	50 - 150
Diuron	106	103	P/P	60 - 160
Fenuron	95.3	99.1	P/P	60 - 150
Fluridone	106	102	P/P	60 - 160
Hydrocodone	109	109	P/P	60 - 150
Ibuprofen	84.5	78.4	P/P	50 - 160
Imazapyr	91.6	97.5	P/P	50 - 150
Imidacloprid	92.1	95.9	P/P	60 - 150
Linuron	97.1	109	P/P	60 - 150
Mandestrobin	100	98.2	P/P	50 - 150
MCPP	102	97.7	P/P	50 - 150
Naproxen	74.6	127	P/P	50 - 160
Primidone	102	90.5	P/P	60 - 150
Pyraclostrobin	105	105	P/P	60 - 150
Silvex	95.2	92.1	P/P	50 - 150
Thiamethoxam	97.2	93.2	P/P	50 - 150
Tolfenpyrad	97.7	101	P/P	60 - 150
Triclopyr	82.5	105	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A118997
Included Lab Sample IDs: 2404443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	108	131	P/P	60 - 160
Sucralose	101	103	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A119009
Included Lab Sample IDs: 2404443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	100	99.4	P/P	60 - 160
Endothall	86.2	85.1	P/P	60 - 160
Glufosinate	85.5	81.5	P/P	60 - 160
Glyphosate	95.5	103	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A119022
Included Lab Sample IDs: 2404436, 2404439

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119031

Included Lab Sample IDs: 2404444, 2404445

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	101	P/P	90 - 110
Calcium	101	101	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	101	102	P/P	90 - 110
Potassium	101	102	P/P	90 - 110
Sodium	96.5	97.4	P/P	90 - 110
Sodium	98.3	99.1	P/P	90 - 110
Strontium	101	102	P/P	90 - 110
Strontium	99.5	102	P/P	90 - 110
Tin	99.2	100	P/P	90 - 110
Tin	99.6	100	P/P	90 - 110
Titanium	100	100	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Vanadium	98.8	99.3	P/P	90 - 110
Vanadium	99.7	100	P/P	90 - 110
Zinc	98.7	98.1	P/P	90 - 110
Zinc	99.2	101	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A119080

Included Lab Sample IDs: 2404436, 2404439

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119098

Included Lab Sample IDs: 2404437, 2404440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	97.3	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A119101

Included Lab Sample IDs: 2404436, 2404439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.8	97.1	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119169

Included Lab Sample IDs: 2404446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	91.4		P	80 - 120
Alachlor	86.8		P	80 - 120
Ametryn	83.7		P	80 - 120
Atrazine	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119169
Included Lab Sample IDs: 2404446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine Desethyl	96.2		P	80 - 120
Azinphos Methyl	93.1		P	80 - 120
Azoxystrobin	107		P	80 - 120
Bromacil	80.1		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	102		P	80 - 120
Carbophenothion	84.7		P	80 - 120
Carfentrazone Ethyl	84.3		P	80 - 120
Chlorfenapyr	88.3		P	80 - 120
Chlorpyrifos Ethyl	91.3		P	80 - 120
Chlorpyrifos Methyl	87.7		P	80 - 120
Coumaphos	89.1		P	80 - 120
Cyanazine	91.9		P	80 - 120
Cyprodinil	81.0		P	80 - 120
Demeton	110		P	80 - 120
Diazinon	84.3		P	80 - 120
Difenoconazole	109		P	80 - 120
Dimethenamid	92.2		P	80 - 120
Dimethomorph	103		P	80 - 120
Disulfoton	95.4		P	80 - 120
Dithiopyr	82.3		P	80 - 120
EPTC	98.7		P	80 - 120
Ethion	88.9		P	80 - 120
Ethoprop	108		P	80 - 120
Etridiazole	85.2		P	80 - 120
Fenamiphos	86.3		P	80 - 120
Fenbuconazole	80.7		P	80 - 120
Fipronil	99.4		P	80 - 120
Fipronil Desulfinyl	81.0		P	80 - 120
Fipronil Sulfide	80.9		P	80 - 120
Fipronil Sulfone	82.0		P	80 - 120
Fluazifop-P-butyl	81.2		P	80 - 120
Fludioxonil	80.5		P	80 - 120
Flumioxazin	82.8		P	80 - 120
Flutolanil	97.0		P	80 - 120
Fluxapyroxad	84.2		P	80 - 120
Fonofos	118		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	92.8		P	80 - 120
Iprodione	90.1		P	80 - 120
Loratadine	87.4		P	80 - 120
Malathion	82.0		P	80 - 120
Metalaxyl	84.7		P	80 - 120
Metolachlor	88.8		P	80 - 120
Metribuzin	92.5		P	80 - 120
Mevinphos	107		P	80 - 120
Molinate	97.9		P	80 - 120
Myclobutanil	88.8		P	80 - 120
Naled	118		P	80 - 120
Napropamide	86.8		P	80 - 120
Norflurazon	86.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119169
Included Lab Sample IDs: 2404446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	101		P	80 - 120
Oxyfluorfen	80.7		P	80 - 120
Parathion Ethyl	106		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	70.3*		F	80 - 120
Phenytol	88.7		P	80 - 120
Phorate	110		P	80 - 120
Prodiatamine	75.1*		F	80 - 120
Prometon	96.7		P	80 - 120
Prometryn	81.3		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	85.3		P	80 - 120
Propargite	95.2		P	80 - 120
Propiconazole	97.9		P	80 - 120
Pyraflufen Ethyl	88.6		P	80 - 120
Pyridaben	89.5		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	99.7		P	80 - 120
Stirophos	87.2		P	80 - 120
Sulfentrazone	77.5*		F	80 - 120
Tebuconazole	105		P	80 - 120
Terbufos	102		P	80 - 120
Terbutylazine	92.6		P	80 - 120
Thiobencarb	89.2		P	80 - 120
Triadimefon	86.7		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	96.1					5.26	
EPA 180.1 Rev. 2.0	Turbidity	99.6					13.3	
EPA 200.7 Rev. 4.4	Calcium	101	102	103				0.936
	Iron	103	106	105	106			1.20
	Magnesium	102	103	102	102			0.891
	Potassium	103	104	105	106			0.149
	Sodium	96.8	98.3	99.5				0.658
	Strontium	100	103	102	102			0.916
	Tin	100	103	102	99.8			0.886
	Titanium	98.9	104	103	103			1.46
	Vanadium	98.6	105	104	102			1.46
	Zinc	100	106	104	100			1.12
EPA 200.8 Rev. 5.4	Aluminum	100	99.1	100	102			0.896
	Antimony	101	100	102	102			1.56
	Arsenic	98.9	100	102	99.6			1.61
	Barium	102	101	102	102			0.897
	Beryllium	92.1	95.3	101	96.9			6.10
	Boron	105	102	105	109			2.26
	Cadmium	98.9	100	100	102			0.199
	Chromium	99.1	96.9	98.6	102			1.67
	Cobalt	96.8	98.8	97.3	96.5			2.43
	Copper	99.0	99.7	101	98.8			0.956
	Lead	93.2	94.4	95.5	95.0			1.16
	Manganese	100	99.2	100	102			0.798
	Molybdenum	98.1	99.5	100	101			0.473
	Nickel	98.0	97.5	98.8	99.4			1.34
	Selenium	97.9	99.2	100	97.8			1.11
	Silver	99.5	98.2	98.0	100			0.195
	Thallium	101	104	105	104			1.06
EPA 300.0 Rev. 2.1	Chloride	100	98.6	98.4			0.0860	
	Sulfate	100	99.1	98.7			0.310	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	100	102				1.32
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.2	95.1	98.1				2.04
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	104				0.0
EPA 365.1 Rev. 2.0	Total-P	104	105	105				0.0672
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	98.9	99.6				0.705
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	70.6	72.0	109				41.0
	Acetochlor	73.4	83.9	110				26.6
	Alachlor	88.3	109	106				3.27
	Ametryn	150	134	128				4.69
	Atrazine	101	87.1	103				10.5
	Atrazine Desethyl	123	107	109				2.01
	Avobenzone	99.8	98.0	165				50.7
	Azinphos Methyl	84.2	43.1	83.3				51.0
	Azoxystrobin	79.2	80.7	112				32.4
	Bromacil	110	84.2	110				26.4
	Butylate	70.9	64.6	56.4				13.6
	Caffeine	106	76.3	81.5				1.15
	Carbophenothion	107	92.3	115				21.7
	Carfentrazone Ethyl	114	90.8	117				24.9
	Chlorfenapyr	77.4	55.5	70.0				23.0
	Chlorpyrifos Ethyl	92.9	67.2	69.3				3.09

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	90.8	57.9	62.9		8.24
	Coumaphos	48.1	107	119		10.9
	Cyanazine	127	109	130		17.1
	Cyprodinil	92.5	65.8	86.1		26.7
	Dechlorane 602	72.6	61.2	86.0		33.7
	Dechlorane 603	87.3	81.1	117		36.2
	Dechlorane Plus	102	104	89.5		14.7
	Demeton	82.5	81.2	86.6		6.44
	Diazinon	115	95.5	117		20.4
	Difenoconazole	38.1	106	89.3		17.4
	Dimethenamid	98.4	80.2	101		23.0
	Dimethomorph	151	158	148		6.31
	Disulfoton	117	105	122		15.1
	Dithiopyr	107	82.0	94.8		12.7
	EPTC	68.6	59.5	53.1		11.3
	Ethion	81.7	87.8	106		18.8
	Ethoprop	100	88.0	97.9		10.6
	Etridiazole	84.6	80.7	72.9		10.2
	Fenamiphos	79.3	103	102		1.59
	Fenbuconazole	96.3	67.1	99.9		39.2
	Fipronil	101	85.4	81.7		4.49
	Fipronil Desulfinyl	98.9	74.5	98.3		24.5
	Fipronil Sulfide	104	77.5	93.3		17.3
	Fipronil Sulfone	92.2	80.3	91.9		11.7
	Fluazifop-P-butyl	69.4	77.3	68.1		12.5
	Fludioxonil	72.6	65.7	80.2		19.8
	Flumioxazin	65.5	80.4	90.6		11.9
	Flutolanil	84.5	75.1	109		36.8
	Fluxapyroxad	85.0	79.6	88.2		10.3
	Fonofos	103	69.0	46.3		39.4
	Hexabromobenzene	101	104	123		16.8
	Hexazinone	94.8	87.4	97.1		10.6
	Imazalil	43.9	66.2	69.4		4.70
	Iprodione	63.2	108	101		6.92
	Loratadine	59.9	114	127		10.3
	Malathion	76.9	167	208		21.9
	Metalaxyl	91.9	100	99.2		0.793
	Metolachlor	100	81.1	89.8		10.2
	Metribuzin	103	102	101		0.817
	Mevinphos	95.3	81.3	109		28.8
	Molinate	67.8	59.3	60.6		2.08
	Myclobutanil	93.1	91.5	97.0		5.86
	Naled	42.2	31.6	36.4		14.1
	Napropamide	76.2	57.8	74.5		25.2
	Norflurazon	82.0	93.1	95.7		2.72
	Octinoxate	104	101	114		11.5
	Oxadiazon	86.5				10.7
	Oxybenzone	106	104	123		17.0
	Oxyfluorfen	94.4	85.3	103		19.1
	Parathion Ethyl	102	98.9	97.1		1.84
	Parathion Methyl	97.4	104	105		1.20
	PBB-153	83.3	77.3	130		50.8
	PBDE-47	91.8	84.8	101		17.7
	PBDE-99	68.5	57.2	91.1		45.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pendimethalin	110	96.5	114		16.8
	Pentabromotoluene	96.2	97.7	111		12.4
	Phenytain	63.0	40.0	56.4		20.9
	Phorate	115	109	118		7.61
	Prodiamine	76.9	60.0	67.3		11.5
	Prometon	117	97.5	110		11.8
	Prometryn	88.9	81.4	96.4		16.9
	Pronamide	96.4	76.2	96.7		23.7
	Propanil	108	92.0	109		16.9
	Propargite	90.7	42.4	63.2		31.5
	Propiconazole	61.3	67.7	75.0		10.2
	Pyraflufen Ethyl	72.4	62.0	47.4		26.7
	Pyridaben	36.7	62.7	70.2		11.3
	Pyriproxyfen	86.9	49.0	87.3		49.7
	Simazine	89.6	80.4	97.2		18.9
	Stiophos	85.4	72.7	82.8		13.0
	Sulfentrazone	66.5	57.9	64.6		10.8
	Tebuconazole	76.9	57.1	64.6		12.4
	Terbufos	103	85.7	109		23.5
	Terbutylazine	89.2	71.8	95.2		28.0
	Tetradecachloro-m-terphenyl	140	151	183		18.8
	Thiobencarb	114	92.3	104		12.2
	Tri-o-cresyl Phosphate	98.7	96.1	115		18.1
	Triadimefon	104	96.6	109		12.4
	Tris(1-chloro-2-propyl) phosphate (TCPP)	130	150	84.9		50.0
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	93.7	89.2	101		11.8
	Tris(2-chloroethyl) phosphate (TCEP)	105	101	107		5.95
EPA 8321B	2,4-D	85.2	104	111		6.31
	2,4,5-T	83.2	108	105		3.12
	Acesulfame K	107	129	130		0.713
	Acetaminophen	78.2	84.2	87.7		4.06
	Acetamiprid	79.9	84.2	78.9		6.41
	Afidopyropen	49.8	92.3	88.5		4.21
	AMPA	97.1	87.0	94.2		7.95
	Bentazon	141				10.9
	Benzovindiflupyr	81.6	80.6	80.2		0.506
	Carbamazepine	83.9	71.6	67.3		5.81
	Clothianidin	86.8	105	104		1.03
	Dinotefuran	105	104	102		2.22
	Diuron	77.1	65.6	62.4		4.96
	Endothall	81.3	85.3	83.2		2.43
	Fenuron	87.0	63.5	63.4		0.219
	Fluridone	77.1	61.3	62.1		1.19
	Glufosinate	81.9	84.9	85.0		0.0367
	Glyphosate	97.4	97.6	92.2		5.66
	Hydrocodone	86.5	71.9	69.9		2.95
	Ibuprofen	91.0	60.5	52.8		13.7
	Imazapyr	84.2	105	108		2.30
	Imidacloprid	83.9	115	116		0.536
	Linuron	81.2	70.3	67.5		4.04
	Mandestrobin	86.4	77.7	79.5		2.35

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	MCCP	87.7	121	106		12.5
	Naproxen	77.0	57.1	56.0		1.85
	Primidone	85.2	96.7	97.0		0.400
	Pyraclostrobin	85.6	81.5	76.8		6.03
	Silvex	81.7	114	118		3.21
	Sucralose	96.6	107	101		5.67
	Thiamethoxam	88.4	101	99.4		1.96
	Tolfenpyrad	55.3	54.5	49.3		10.0
	Triclopyr	85.9	101	105		4.08
SM 2320 B-2011	Total Alkalinity	99.0			1.31	
SM 2540 C-2015	TDS	95.4			2.15	
SM 2540 D-2015	TSS	91.7				
SM 4500-F- C-2011	Fluoride	98.0	101	101		0.0
SM 5310 B-2011	Organic Carbon	95.0	95.8	103		5.44

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2404436, 2404439
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2404436, 2404439
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2404444, 2404445
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2404444, 2404445
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2404436, 2404439
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2404436, 2404439
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2404437, 2404440
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2404437, 2404440
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2404437, 2404440
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2404437, 2404440
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2404438, 2404441
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2404446
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2404446
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2404443
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2404436, 2404439
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2404444
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2404436, 2404439
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2404436, 2404439
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2404436, 2404439
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2404437, 2404440

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	05/02/2023			05/02/2023 14:57	Alexis Price	2404436
	05/02/2023			05/02/2023 14:58	Alexis Price	2404439
EPA 180.1 Rev. 2.0	05/02/2023			05/02/2023 13:57	Khloe J Berg	2404436
	05/02/2023			05/02/2023 13:58	Khloe J Berg	2404439
EPA 200.7 Rev. 4.4	05/02/2023	05/03/2023 11:30	George D Taylor	05/08/2023 23:55	McKinley C Carter	2404445
	05/02/2023	05/03/2023 11:30	George D Taylor	05/09/2023 02:11	McKinley C Carter	2404444
EPA 200.8 Rev. 5.4	05/02/2023	05/03/2023 11:30	George D Taylor	05/03/2023 18:50	Emily M Philpot	2404445
	05/02/2023	05/03/2023 11:30	George D Taylor	05/03/2023 19:29	Emily M Philpot	2404444
	05/02/2023	05/03/2023 11:30	George D Taylor	05/04/2023 16:42	Emily M Philpot	2404445
	05/02/2023	05/03/2023 11:30	George D Taylor	05/04/2023 17:06	Emily M Philpot	2404444
	05/02/2023	05/03/2023 11:30	George D Taylor	05/04/2023 17:45	Anna M. Plaviak	2404436
EPA 300.0 Rev. 2.1	05/02/2023			05/05/2023 20:30	Anna M. Plaviak	2404439
	05/02/2023			05/03/2023 13:45	Khloe J Berg	2404437
EPA 350.1 Rev. 2.0	05/02/2023			05/03/2023 13:51	Khloe J Berg	2404440
	05/02/2023	05/10/2023 12:02	Dana G. Hughes	05/11/2023 09:48	Ping Hua	2404437
EPA 351.2 Rev. 2.0	05/02/2023	05/10/2023 12:02	Dana G. Hughes	05/11/2023 09:53	Ping Hua	2404440
	05/02/2023			05/05/2023 10:42	Beverly Y. Sanders	2404437
EPA 353.2 Rev. 2.0	05/02/2023			05/05/2023 10:43	Beverly Y. Sanders	2404440
	05/02/2023	05/03/2023 12:11	Adam P Silver	05/04/2023 14:11	James L Waggeberby	2404440
EPA 365.1 Rev. 2.0	05/02/2023	05/03/2023 12:11	Adam P Silver	05/04/2023 14:13	James L Waggeberby	2404437
	05/02/2023			05/02/2023 13:54	Elise M. Gillis	2404438
EPA 365.1 Rev. 2.0 dissolved	05/02/2023			05/02/2023 13:56	Elise M. Gillis	2404441
	05/02/2023	05/03/2023 08:00	Fe-Val Siddell	05/04/2023 17:28	Vandana T. Nagar	2404446
EPA 8270E	05/02/2023	05/03/2023 08:00	Fe-Val Siddell	05/04/2023 17:32	Arthur Maknenko	2404446
	05/02/2023	05/03/2023 09:00	Hoor Shaik	05/04/2023 21:35	Juyoung Kim	2404443
EPA 8321B	05/02/2023	05/05/2023 09:00	Manjita Shrestha	05/05/2023 13:10	Manjita Shrestha	2404443
	05/02/2023	05/05/2023 09:00	Manjita Shrestha	05/06/2023 12:36	Manjita Shrestha	2404443
SM 2320 B-2011	05/02/2023			05/11/2023 06:11	Dale L. Simmons	2404436
	05/02/2023			05/11/2023 06:17	Dale L. Simmons	2404439
SM 2340 B-2011	05/02/2023			05/09/2023 02:11	McKinley C Carter	2404444
SM 2540 C-2015	05/02/2023			05/03/2023 14:10	Yijie Li	2404436, 2404439
SM 2540 D-2015	05/02/2023			05/03/2023 14:10	Yijie Li	2404436, 2404439
SM 4500-F- C-2011	05/02/2023			05/09/2023 21:33	Dale L. Simmons	2404436
	05/02/2023			05/09/2023 21:38	Dale L. Simmons	2404439
SM 5310 B-2011	05/02/2023			05/04/2023 15:03	Elise M. Gillis	2404437
	05/02/2023			05/04/2023 19:30	Elise M. Gillis	2404440