

Chemical Analysis Report

CEN-DIST-2023-06-27-02

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

Event Description: **Lake Spencer and Clear Lake LVIs**
Request ID: **RQ-2023-05-15-20**
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: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 19-JUL-2023 12:22



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: CLEAR LAKE NEAR CENTER

Collection Date/Time: 06/26/2023 12:30

Field ID: G1CE0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419812	DEP SOP: NU-094-1	Color (true)	31		PCU	P431844	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P431847	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P431915	
		Sulfate	5.4		mg SO4/L	P431917	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P431955	
	SM 2540 C-2015	TDS	61		mg/L	P432257	
	SM 2540 D-2015	TSS	2	I	mg/L	P432094	
	SM 4500-F- C-2011	Fluoride	0.077	I	mg F/L	P431957	
2419813	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P431876	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P431866	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P432075	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P431880	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P432071	
2419814	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P431836	
2419816	EPA 8321B	2,4-D	0.0020	U	ug/L	P431822	
		Acesulfame K	0.10	U	ug/L	P431789	
		2,4,5-T	0.0040	U	ug/L	P431822	
		AMPA	0.10	U	ug/L	P431789	
		Acetaminophen	0.010	I	ug/L	P431822	
		Acetamiprid	0.0020	U	ug/L	P431822	
		Endothall	0.25	U	ug/L	P431789	
		Glufosinate	0.10	U	ug/L	P431789	
		Glyphosate	0.10	U	ug/L	P431789	
		Afidopyrophen	0.0020	U	ug/L	P431822	
		Bentazon	8.0E-04	U	ug/L	P431822	
		Sucralose	0.015	I	ug/L	P431789	
		Benzovindiflupyr	0.0020	U	ug/L	P431822	
		Carbamazepine	8.0E-04	U	ug/L	P431822	
		Clothianidin	0.0020	U	ug/L	P431822	
		Dinotefuran	0.0020	U	ug/L	P431822	
		Diuron	0.0020	U	ug/L	P431822	
		Fenuron	0.032	U	ug/L	P431822	
		Fluridone	8.0E-04	U	ug/L	P431822	
		Imazapyr	0.0040	U	ug/L	P431822	
		Hydrocodone	0.0020	U	ug/L	P431822	
		Ibuprofen	0.080	U	ug/L	P431822	
		Imidacloprid	0.0020	U	ug/L	P431822	
		Linuron	0.0040	U	ug/L	P431822	
		Mandestrobin	0.0020	U	ug/L	P431822	
		MCPD	0.0020	U	ug/L	P431822	
		Naproxen	0.0080	U	ug/L	P431822	
		Primidone	0.0040	U	ug/L	P431822	
		Pyraclostrobin	0.0020	U	ug/L	P431822	

MS

Field ID: G1CE0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419816	EPA 8321B	Silvex	0.0040	U	ug/L	P431822	
		Thiamethoxam	0.0020	U	ug/L	P431822	
		Tolfenpyrad	0.0020	U	ug/L	P431822	
		Triclopyr	0.0040	U	ug/L	P431822	
2419817	EPA 200.7 Rev. 4.4	Barium	1.3	I	ug/L	P431939	
		Calcium	6.30		mg/L	P431939	
		Iron	32	I	ug/L	P431939	
		Magnesium	3.28		mg/L	P431939	
		Potassium	1.9		mg/L	P431939	
		Sodium	5.3		mg/L	P431939	
		Strontium	19.3		ug/L	P431939	
		Tin	3.0	U	ug/L	P431939	
		Titanium	0.75	U	ug/L	P431939	
		Vanadium	2.0	U	ug/L	P431939	
		Zinc	5.0	U	ug/L	P431939	
	EPA 200.8 Rev. 5.4	Aluminum	9.4	I	ug/L	P431939	
		Antimony	0.053	I	ug/L	P431939	
		Arsenic	1.01		ug/L	P431939	
		Beryllium	0.010	U	ug/L	P431939	
		Boron	36.8		ug/L	P431939	
		Cadmium	0.020	U	ug/L	P431939	
		Chromium	0.40	U	ug/L	P431939	
		Cobalt	0.020	U	ug/L	P431939	
		Copper	0.40	U	ug/L	P431939	
		Lead	0.20	U	ug/L	P431939	
		Manganese	34.4		ug/L	P431939	
		Molybdenum	0.15	U	ug/L	P431939	
		Nickel	0.50	U	ug/L	P431939	
		Selenium	0.20	U	ug/L	P431939	
		Silver	0.010	U	ug/L	P431939	
		Thallium	0.10	U	ug/L	P431939	
	SM 2340 B-2011	Hardness	29.2		mg/L	P431939	
2419818	EPA 8270E	Oxybenzone**	10	U	ng/L	P431788	MS
		Acetochlor	0.20	U	ng/L	P431788	MS
		Octinoxate**	150	U	ng/L	P431788	
		Alachlor	0.41	U	ng/L	P431788	
		Avobenzone**	100	U	ng/L	P431788	
		Ametryn	1.1	U	ng/L	P431788	
		Atrazine	2.5		ng/L	P431788	MS
		PBDE-47**	4.1	U	ng/L	P431788	
		Atrazine Desethyl	1.3	U	ng/L	P431788	
		PBDE-99**	5.1	U	ng/L	P431788	
		Azinphos Methyl	3.0	U	ng/L	P431788	
		Tri-o-cresyl Phosphate**	6.1	U	ng/L	P431788	
		Azoxystrobin	0.41	U	ng/L	P431788	RPD

Field ID: G1CE0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419818	EPA 8270E	Bromacil	0.61	U	ng/L	P431788	
		2-Ethylhexyl	12	U	ng/L	P431788	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.20	U	ng/L	P431788	
		Dechlorane Plus**	30	U	ng/L	P431788	
		Caffeine**	11	I	ng/L	P431788	
		Dechlorane 602**	5.1	U	ng/L	P431788	
		Carbophenothion	0.51	U	ng/L	P431788	RPD
		Dechlorane 603**	4.1	U	ng/L	P431788	
		Carfentrazone Ethyl	0.15	U	ng/L	P431788	RPD
		Hexabromobenzene**	6.1	U	ng/L	P431788	
		Chlorfenapyr	0.30	U	ng/L	P431788	
		PBB-153**	8.1	UJ	ng/L	P431788	LCS
		Chlorpyrifos Ethyl	0.30	U	ng/L	P431788	RPD
		Pentabromotoluene**	3.0	U	ng/L	P431788	
		Chlorpyrifos Methyl	0.10	U	ng/L	P431788	MS
		Tris(2-chloroethyl) phosphate (TCEP)**	71	U	ng/L	P431788	
		Coumaphos	1.1	U	ng/L	P431788	RPD
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	21	I	ng/L	P431788	
		Cyanazine	5.1	U	ng/L	P431788	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.5	U	ng/L	P431788	
		Cyprodinil	0.20	U	ng/L	P431788	
		Tetradecachloro-m-terphenyl**	7.6	U	ng/L	P431788	
		Demeton	3.5	U	ng/L	P431788	
		Diazinon	0.13	U	ng/L	P431788	
		Difenoconazole	0.61	U	ng/L	P431788	RPD
		Dimethenamid	0.10	U	ng/L	P431788	
		Dimethomorph	0.30	U	ng/L	P431788	
		Disulfoton	0.61	U	ng/L	P431788	
		Dithiopyr	1.0	U	ng/L	P431788	
		EPTC	0.51	U	ng/L	P431788	RPD
		Ethion	0.30	U	ng/L	P431788	
		Ethoprop	0.13	U	ng/L	P431788	MS, RPD
		Etridiazole	0.10	U	ng/L	P431788	RPD
		Fenamiphos	0.46	U	ng/L	P431788	
		Fenbuconazole	0.51	U	ng/L	P431788	MS
		Fipronil	0.20	U	ng/L	P431788	
		Fipronil Desulfinyl**	0.12	I	ng/L	P431788	
		Fipronil Sulfide	0.10	U	ng/L	P431788	
		Fipronil Sulfone	0.10	U	ng/L	P431788	
		Fluazifop-P-butyl	0.10	U	ng/L	P431788	
		Fludioxonil	0.10	U	ng/L	P431788	MS
		Flumioxazin	3.0	U	ng/L	P431788	
		Flutolanil	0.10	U	ng/L	P431788	
		Fluxapyroxad	0.25	U	ng/L	P431788	

Field ID: G1CE0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2419818	EPA 8270E	Fonofos	0.15	U	ng/L	P431788	
		Hexazinone	0.51	U	ng/L	P431788	MS, RPD
		Imazalil	0.66	U	ng/L	P431788	
		Iprodione	0.51	UJ	ng/L	P431788	CCV
		Loratadine**	0.30	U	ng/L	P431788	RPD
		Malathion	0.35	U	ng/L	P431788	MS
		Metalaxyl	0.51	U	ng/L	P431788	MS
		Metolachlor	0.76	U	ng/L	P431788	RPD
		Metribuzin	0.41	U	ng/L	P431788	RPD
		Mevinphos	1.0	U	ng/L	P431788	RPD
		Molinate	0.25	U	ng/L	P431788	MS
		Myclobutanil	0.35	U	ng/L	P431788	RPD
		Naled	2.5	U	ng/L	P431788	RPD
		Napropamide	0.71	U	ng/L	P431788	
		Norflurazon	1.0	U	ng/L	P431788	RPD
		Oxadiazon	0.64	I	ng/L	P431788	
		Oxyfluorfen	0.20	U	ng/L	P431788	
		Parathion Ethyl	0.15	U	ng/L	P431788	MS, RPD
		Parathion Methyl	0.20	U	ng/L	P431788	MS
		Pendimethalin	0.76	U	ng/L	P431788	
		Phenytol**	5.4	U	ng/L	P431788	
		Phorate	0.25	U	ng/L	P431788	
		Prodiamine	0.20	U	ng/L	P431788	MS
		Prometon	3.0	U	ng/L	P431788	MS
		Prometryn	0.35	U	ng/L	P431788	
		Pronamide	0.10	U	ng/L	P431788	
		Propanil	0.10	U	ng/L	P431788	
		Propargite	0.81	U	ng/L	P431788	
		Propiconazole	0.61	U	ng/L	P431788	
		Pyraflufen Ethyl	0.30	U	ng/L	P431788	
		Pyridaben	1.4	U	ng/L	P431788	
		Pyriproxyfen	0.25	U	ng/L	P431788	
		Simazine	0.25	U	ng/L	P431788	RPD
		Stiophos	0.41	U	ng/L	P431788	
		Sulfentrazone	1.4	U	ng/L	P431788	
		Tebuconazole	1.4	U	ng/L	P431788	
		Terbufos	0.20	U	ng/L	P431788	
		Terbuthylazine	0.20	U	ng/L	P431788	
		Thiobencarb	0.51	U	ng/L	P431788	
		Triadimefon	0.15	U	ng/L	P431788	

Ref. Method and Comment:

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

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P431844

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431847

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431939

Component	Result	Code	Units
Barium	1.0	U	ug/L
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: P431939

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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: P431915

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: P431917

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431876

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431866

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432075

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431880

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431836

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

Reference Method: EPA 8270E
Batch ID: P431788

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: P431788

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: P431788

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: P431788

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Octinoxate	150	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: P431788**

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: P431789**

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: P431822**

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: P431822

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: P431955

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

Reference Method: SM 2540 C-2015
Batch ID: P432257

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P432094

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P432071

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: P431844

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.0		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431847

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431939

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	100		P	85 - 115
Calcium	100		P	85 - 115
Iron	104		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	96.0		P	85 - 115
Sodium	97.0		P	85 - 115
Strontium	95.4		P	85 - 115
Tin	96.0		P	85 - 115
Titanium	99.1		P	85 - 115
Vanadium	96.5		P	85 - 115
Zinc	97.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431939

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	96.4		P	85 - 115
Boron	107		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	97.4		P	85 - 115
Cobalt	104		P	85 - 115
Copper	98.2		P	85 - 115
Lead	106		P	85 - 115
Manganese	100		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	98.1		P	85 - 115
Selenium	102		P	85 - 115
Silver	110		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431917

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431866

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432075

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: P431880

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431836

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

Reference Method: EPA 8270E
Batch ID: P431788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	126		P	42 - 162
Acetochlor	78.9		P	69 - 123
Alachlor	87.2		P	65 - 118
Ametryn	113		P	58 - 141
Atrazine	89.0		P	73 - 118
Atrazine Desethyl	85.4		P	32 - 125
Avobenzone	139		P	40 - 203
Azinphos Methyl	152		P	36 - 197
Azoxystrobin	100		P	58 - 226
Bromacil	86.4		P	48 - 120
Butylate	51.0		P	27 - 85.0
Caffeine	104		P	40 - 137
Carbophenothion	97.4		P	54 - 132
Carfentrazone Ethyl	103		P	60 - 142
Chlorfenapyr	83.3		P	53 - 117
Chlorpyrifos Ethyl	86.3		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P431788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	102		P	66 - 119
Coumaphos	143		P	11 - 234
Cyanazine	128		P	61 - 248
Cyprodinil	90.1		P	50 - 147
Dechlorane 602	126		P	50 - 150
Dechlorane 603	144		P	50 - 150
Dechlorane Plus	108		P	47 - 182
Demeton	78.9		P	30 - 138
Diazinon	91.7		P	67 - 126
Difenoconazole	185		P	38 - 205
Dimethenamid	89.7		P	57 - 111
Dimethomorph	95.2		P	16 - 212
Disulfoton	80.7		P	46 - 126
Dithiopyr	81.6		P	62 - 115
EPTC	46.8		P	28 - 80.0
Ethion	76.2		P	24 - 122
Ethoprop	81.6		P	62 - 113
Etridiazole	57.2		P	28 - 92.0
Fenamiphos	88.4		P	57 - 128
Fenbuconazole	102		P	52 - 155
Fipronil	84.6		P	63 - 130
Fipronil Desulfinyl	85.2		P	61 - 130
Fipronil Sulfide	94.2		P	56 - 117
Fipronil Sulfone	92.1		P	52 - 118
Fluazifop-P-butyl	86.4		P	61 - 128
Fludioxonil	86.3		P	59 - 129
Flumioxazin	181		P	30 - 250
Flutolanil	94.6		P	53 - 127
Fluxapyroxad	89.8		P	42 - 132
Fonofos	90.9		P	61 - 110
Hexabromobenzene	131		P	50 - 150
Hexazinone	91.9		P	46 - 139
Imazalil	90.8		P	40 - 139
Iprodione	54.7		P	40 - 146
Loratadine	190		P	10 - 224
Malathion	87.1		P	61 - 135
Metaxyl	80.5		P	58 - 121
Metolachlor	96.0		P	64 - 118
Metribuzin	88.2		P	45 - 245
Mevinphos	83.1		P	49 - 118
Molinate	51.9		P	42 - 92.0
Myclobutanil	82.5		P	55 - 127
Naled	43.2		P	10 - 114
Napropamide	86.6		P	39 - 121
Norflurazon	85.7		P	55 - 129
Octinoxate	124		P	26 - 166
Oxadiazon	79.3		P	54 - 115
Oxybenzone	126		P	49 - 135
Oxyfluorfen	104		P	64 - 139
Parathion Ethyl	91.9		P	70 - 111
Parathion Methyl	93.0		P	76 - 136
PBB-153	151		F	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P431788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	119		P	41 - 148
PBDE-99	116		P	38 - 147
Pendimethalin	90.8		P	52 - 118
Pentabromotoluene	117		P	50 - 150
Phenytoin	31.7		P	10 - 162
Phorate	88.2		P	40 - 122
Prodiamine	87.9		P	26 - 141
Prometon	114		P	54 - 122
Prometryn	119		P	61 - 128
Pronamide	96.7		P	72 - 121
Propanil	97.9		P	45 - 144
Propargite	76.2		P	10 - 199
Propiconazole	88.6		P	56 - 127
Pyraflufen Ethyl	93.9		P	56 - 140
Pyridaben	128		P	26 - 211
Pyriproxyfen	108		P	33 - 194
Simazine	86.4		P	67 - 121
Stirophos	61.5		P	20 - 142
Sulfentrazone	78.8		P	21 - 144
Tebuconazole	62.0		P	10 - 122
Terbufos	89.0		P	60 - 129
Terbutylazine	84.9		P	69 - 113
Tetradecachloro-m-terphenyl	123		P	70 - 200
Thiobencarb	71.0		P	51 - 120
Tri-o-cresyl Phosphate	124		P	49 - 150
Triadimefon	78.6		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	107		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	124		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P431789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	117		P	40 - 150
Endothall	95.8		P	40 - 150
Glufosinate	94.9		P	40 - 150
Glyphosate	105		P	40 - 150
Sucralose	89.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P431822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	97.6		P	40 - 150
Acetaminophen	72.8		P	30 - 150
Acetamiprid	72.9		P	40 - 150
Afidopyropen	51.2		P	30 - 150
Bentazon	117		P	30 - 150
Benzovindiflupyr	86.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P431822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	85.7		P	40 - 150
Clothianidin	89.9		P	40 - 150
Dinotefuran	85.1		P	40 - 150
Diuron	85.2		P	40 - 150
Fenuron	88.9		P	40 - 150
Fluridone	95.5		P	40 - 150
Hydrocodone	87.7		P	40 - 150
Ibuprofen	76.4		P	40 - 150
Imazapyr	79.6		P	40 - 150
Imidacloprid	86.6		P	40 - 150
Linuron	87.3		P	40 - 150
Mandestrobin	84.3		P	40 - 150
MCPP	91.7		P	40 - 150
Naproxen	82.9		P	40 - 150
Primidone	74.9		P	40 - 150
Pyraclostrobin	76.0		P	40 - 150
Silvex	84.2		P	40 - 150
Thiamethoxam	86.4		P	40 - 150
Tolfenpyrad	53.7		P	30 - 150
Triclopyr	88.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P431955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P432257

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.8		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P432094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	97.4		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P431957

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.4		P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P432071

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P431939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2420025	Barium	105	104	P/P	80 - 120
2420025	Calcium	110	104	P/P	80 - 120
2420025	Iron	109	106	P/P	80 - 120
2420025	Magnesium	111	109	P/P	80 - 120
2420025	Potassium	101	97.4	P/P	80 - 120
2420025	Sodium	105	99.9	P/P	80 - 120
2420025	Strontium	101	97.4	P/P	80 - 120
2420025	Tin	101	100	P/P	80 - 120
2420025	Titanium	106	105	P/P	80 - 120
2420025	Vanadium	103	101	P/P	80 - 120
2420025	Zinc	103	102	P/P	80 - 120
2420245	Barium	101		P	80 - 120
2420245	Calcium	99.0		P	80 - 120
2420245	Iron	107		P	80 - 120
2420245	Magnesium	107		P	80 - 120
2420245	Potassium	97.8		P	80 - 120
2420245	Sodium	94.7		P	80 - 120
2420245	Strontium	97.7		P	80 - 120
2420245	Tin	100		P	80 - 120
2420245	Titanium	103		P	80 - 120
2420245	Vanadium	102		P	80 - 120
2420245	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P431939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2420025	Aluminum	102	101	P/P	80 - 120
2420025	Antimony	104	103	P/P	80 - 120
2420025	Arsenic	100	99.5	P/P	80 - 120
2420025	Beryllium	97.0	99.2	P/P	80 - 120
2420025	Boron	104	104	P/P	80 - 120
2420025	Cadmium	102	102	P/P	80 - 120
2420025	Chromium	98.3	97.5	P/P	80 - 120
2420025	Cobalt	103	102	P/P	80 - 120
2420025	Copper	98.9	98.1	P/P	80 - 120
2420025	Lead	106	106	P/P	80 - 120
2420025	Manganese	100	98.7	P/P	80 - 120
2420025	Molybdenum	103	102	P/P	80 - 120
2420025	Nickel	97.6	97.4	P/P	80 - 120
2420025	Selenium	102	100	P/P	80 - 120
2420025	Silver	109	109	P/P	80 - 120
2420025	Thallium	103	104	P/P	80 - 120
2420245	Aluminum	102		P	80 - 120
2420245	Antimony	105		P	80 - 120
2420245	Arsenic	101		P	80 - 120
2420245	Beryllium	103		P	80 - 120
2420245	Boron	105		P	80 - 120
2420245	Cadmium	104		P	80 - 120
2420245	Chromium	97.0		P	80 - 120
2420245	Cobalt	101		P	80 - 120
2420245	Copper	97.0		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2420245	Lead	106		P	80 - 120
2420245	Manganese	99.6		P	80 - 120
2420245	Molybdenum	102		P	80 - 120
2420245	Nickel	96.9		P	80 - 120
2420245	Selenium	103		P	80 - 120
2420245	Silver	108		P	80 - 120
2420245	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419740	Chloride	107		P	90 - 110
2419949	Chloride	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431917

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419740	Sulfate	103		P	90 - 110
2419949	Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419813	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419897	Kjeldahl Nitrogen	105	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419745	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431880

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419813	Total-P	103	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419814	O-Phosphate-P	97.0	99.0	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419810	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	79.2	93.9	P/P	26 - 165
2419810	Acetochlor	66.2	83.0	F/P	67 - 124
2419810	Alachlor	70.9	75.8	P/P	60 - 120
2419810	Ametryn	136	131	P/P	54 - 216
2419810	Atrazine	58.2	82.8	F/P	66 - 128
2419810	Atrazine Desethyl	66.7	81.8	P/P	15 - 122
2419810	Avobenzone	97.6	93.3	P/P	37 - 178
2419810	Azinphos Methyl	69.9	107	P/P	40 - 292
2419810	Azoxystrobin	63.8	109	P/P	35 - 220
2419810	Bromacil	77.2	92.1	P/P	45 - 127
2419810	Butylate	40.2	54.8	P/P	20 - 83.0
2419810	Caffeine	127	123	P/P	10 - 194
2419810	Carbophenothion	75.9	107	P/P	57 - 127
2419810	Carfentrazone Ethyl	81.5	108	P/P	51 - 141
2419810	Chlorfenapyr	69.2	83.4	P/P	46 - 111
2419810	Chlorpyrifos Ethyl	54.1	70.7	P/P	52 - 120
2419810	Chlorpyrifos Methyl	59.6	74.8	F/P	63 - 119
2419810	Coumaphos	92.3	155	P/P	10 - 228
2419810	Cyanazine	111	137	P/P	59 - 241
2419810	Cyprodinil	66.6	83.2	P/P	47 - 146
2419810	Dechlorane 602	79.4	86.9	P/P	50 - 150
2419810	Dechlorane 603	114	120	P/P	50 - 150
2419810	Dechlorane Plus	68.9	62.2	P/P	50 - 150
2419810	Demeton	53.7	73.7	P/P	40 - 136
2419810	Diazinon	97.4	118	P/P	69 - 132
2419810	Difenoconazole	77.4	136	P/P	57 - 258
2419810	Dimethenamid	55.5	67.2	P/P	54 - 110
2419810	Dimethomorph	136	200	P/P	28 - 210
2419810	Disulfoton	75.4	86.2	P/P	43 - 133
2419810	Dithiopyr	73.7	89.2	P/P	39 - 116
2419810	EPTC	31.7	53.9	P/P	20 - 78.0
2419810	Ethion	51.0	64.1	P/P	17 - 119
2419810	Ethoprop	60.1	83.7	F/P	66 - 120
2419810	Etridiazole	50.2	72.3	P/P	28 - 96.0
2419810	Fenamiphos	77.2	72.9	P/P	41 - 126
2419810	Fenbuconazole	39.3	55.3	F/P	42 - 169
2419810	Fipronil	74.8	101	P/P	61 - 132
2419810	Fipronil Desulfinyl	57.2	94.1	P/P	56 - 132
2419810	Fipronil Sulfone	56.3	102	P/P	42 - 131
2419810	Fluazifop-P-butyl	53.7	72.3	P/P	53 - 131
2419810	Fludioxonil	55.1	69.9	F/P	56 - 127
2419810	Flumioxazin	119	184	P/P	19 - 300
2419810	Flutolanil	68.3	74.6	P/P	41 - 127
2419810	Fluxapyroxad	63.1	83.8	P/P	42 - 172
2419810	Fonofos	62.0	74.0	P/P	59 - 113
2419810	Hexabromobenzene	92.3	119	P/P	50 - 150
2419810	Hexazinone	49.7	91.4	F/P	66 - 122
2419810	Imazalil	102	101	P/P	21 - 283
2419810	Iprodione	69.5	81.7	P/P	43 - 150
2419810	Loratadine	97.0	178	P/P	23 - 201
2419810	Malathion	57.7	77.9	F/P	58 - 136
2419810	Metalaxyl	49.9	53.2	F/F	55 - 120

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419810	Metolachlor	65.2	88.6	P/P	57 - 121
2419810	Metribuzin	65.3	104	P/P	58 - 294
2419810	Mevinphos	55.1	87.7	P/P	50 - 126
2419810	Molinate	41.6	53.9	F/P	42 - 93.0
2419810	Myclobutanil	68.5	96.2	P/P	55 - 125
2419810	Naled	27.6	42.9	P/P	18 - 200
2419810	Napropamide	55.4	58.1	P/P	39 - 110
2419810	Norflurazon	64.5	91.1	P/P	48 - 128
2419810	Octinoxate	102	105	P/P	21 - 159
2419810	Oxybenzone	121	146	P/F	41 - 142
2419810	Oxyfluorfen	107	139	P/P	64 - 153
2419810	Parathion Ethyl	60.6	91.2	F/P	69 - 114
2419810	Parathion Methyl	59.9	79.2	F/P	79 - 139
2419810	PBB-153	104	120	P/P	50 - 150
2419810	PBDE-47	90.3	96.8	P/P	27 - 144
2419810	PBDE-99	76.4	89.4	P/P	18 - 150
2419810	Pendimethalin	80.4	104	P/P	50 - 139
2419810	Pentabromotoluene	92.1	102	P/P	50 - 150
2419810	Phenytoin	31.5	37.6	P/P	10 - 146
2419810	Phorate	69.1	90.4	P/P	54 - 161
2419810	Prodiamine	27.9	36.9	F/P	30 - 161
2419810	Prometon	44.1	48.1	F/P	45 - 134
2419810	Prometryn	84.9	100	P/P	45 - 137
2419810	Pronamide	82.2	101	P/P	65 - 133
2419810	Propanil	87.1	99.0	P/P	49 - 142
2419810	Propargite	34.0	38.5	P/P	10 - 203
2419810	Propiconazole	59.5	69.9	P/P	38 - 146
2419810	Pyraflufen Ethyl	72.8	91.4	P/P	34 - 153
2419810	Pyridaben	60.0	81.2	P/P	12 - 192
2419810	Pyriproxyfen	57.6	81.2	P/P	33 - 180
2419810	Simazine	56.3	81.5	P/P	51 - 157
2419810	Stirophos	46.4	55.0	P/P	10 - 128
2419810	Tebuconazole	41.5	42.8	P/P	10 - 133
2419810	Terbufos	76.6	97.9	P/P	65 - 139
2419810	Terbuthylazine	66.4	81.5	P/P	66 - 117
2419810	Tetradecachloro-m-terphenyl	98.4	80.8	P/P	70 - 200
2419810	Thiobencarb	68.6	81.9	P/P	51 - 119
2419810	Tri-o-cresyl Phosphate	107	111	P/P	31 - 144
2419810	Triadimefon	71.5	91.2	P/P	48 - 119
2419810	Tris(1-chloro-2-propyl) phosphate (TCPP)	97.1	87.9	P/P	50 - 150
2419810	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	107	123	P/P	50 - 150
2419810	Tris(2-chloroethyl) phosphate (TCEP)	129	132	P/P	70 - 180

Reference Method: EPA 8321B

Batch ID: P431789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419763	Acesulfame K	111	115	P/P	40 - 150
2419763	AMPA	130	124	P/P	40 - 150
2419763	Endothall	101	102	P/P	40 - 150
2419763	Glufosinate	90.3	90.8	P/P	40 - 150
2419763	Glyphosate	92.9	94.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P431789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419763	Sucralose	92.4	92.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P431822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419423	2,4-D	107	111	P/P	40 - 150
2419423	2,4,5-T	115	111	P/P	40 - 150
2419423	Acetaminophen	66.5	79.7	P/P	30 - 150
2419423	Acetamiprid	73.4	78.2	P/P	40 - 150
2419423	Afidopyropen	52.8	57.4	P/P	30 - 150
2419423	Bentazon	78.5	91.9	P/P	30 - 150
2419423	Benzovindiflupyr	80.3	81.6	P/P	40 - 150
2419423	Carbamazepine	71.4	77.9	P/P	40 - 150
2419423	Clothianidin	93.5	109	P/P	40 - 150
2419423	Dinotefuran	79.1	91.0	P/P	40 - 150
2419423	Diuron	30.0	32.2	F/F	40 - 150
2419423	Fenuron	74.3	78.1	P/P	40 - 150
2419423	Fluridone	84.4	93.5	P/P	40 - 150
2419423	Hydrocodone	75.6	79.3	P/P	40 - 150
2419423	Ibuprofen	58.1	56.4	P/P	40 - 150
2419423	Imazapyr	80.0	92.9	P/P	40 - 150
2419423	Imidacloprid	113	126	P/P	40 - 150
2419423	Linuron	58.4	67.4	P/P	40 - 150
2419423	Mandestrobin	83.4	85.8	P/P	40 - 150
2419423	MCPP	110	126	P/P	40 - 150
2419423	Naproxen	74.3	81.7	P/P	40 - 150
2419423	Primidone	79.2	95.3	P/P	40 - 150
2419423	Pyraclostrobin	80.5	84.2	P/P	40 - 150
2419423	Silvex	92.3	103	P/P	40 - 150
2419423	Thiamethoxam	87.6	88.9	P/P	40 - 150
2419423	Tolfenpyrad	55.3	64.9	P/P	30 - 150
2419423	Triclopyr	101	110	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419404	Fluoride	100	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P432071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2419813	Organic Carbon	93.8	93.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P431844

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419743	Color (true)	0.587	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419978	Turbidity	6.83	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2420025	Barium	0.983	Spike	P	0 - 20
2420025	Calcium	4.24	Spike	P	0 - 20
2420025	Iron	2.11	Spike	P	0 - 20
2420025	Magnesium	2.18	Spike	P	0 - 20
2420025	Potassium	3.09	Spike	P	0 - 20
2420025	Sodium	3.52	Spike	P	0 - 20
2420025	Strontium	3.73	Spike	P	0 - 20
2420025	Tin	1.08	Spike	P	0 - 20
2420025	Titanium	1.19	Spike	P	0 - 20
2420025	Vanadium	1.25	Spike	P	0 - 20
2420025	Zinc	1.11	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2420025	Aluminum	0.388	Spike	P	0 - 20
2420025	Antimony	1.71	Spike	P	0 - 20
2420025	Arsenic	0.900	Spike	P	0 - 20
2420025	Beryllium	2.18	Spike	P	0 - 20
2420025	Boron	0.722	Spike	P	0 - 20
2420025	Cadmium	0.398	Spike	P	0 - 20
2420025	Chromium	0.783	Spike	P	0 - 20
2420025	Cobalt	1.09	Spike	P	0 - 20
2420025	Copper	0.777	Spike	P	0 - 20
2420025	Lead	0.0775	Spike	P	0 - 20
2420025	Manganese	1.41	Spike	P	0 - 20
2420025	Molybdenum	0.983	Spike	P	0 - 20
2420025	Nickel	0.185	Spike	P	0 - 20
2420025	Selenium	1.60	Spike	P	0 - 20
2420025	Silver	0.741	Spike	P	0 - 20
2420025	Thallium	0.250	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419740	Chloride	1.68	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419740	Sulfate	1.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419813	Ammonia-N	1.76	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419897	Kjeldahl Nitrogen	5.85	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419745	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419813	Total-P	2.58	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419814	O-Phosphate-P	2.04	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P431788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419810	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	16.9	Spike	P	0 - 37
2419810	Acetochlor	22.5	Spike	P	0 - 28

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P431788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419810	Alachlor	6.65	Spike	P	0 - 30
2419810	Ametryn	3.29	Spike	P	0 - 32
2419810	Atrazine	28.8	Spike	P	0 - 41
2419810	Atrazine Desethyl	20.2	Spike	P	0 - 36
2419810	Avobenzone	4.47	Spike	P	0 - 36
2419810	Azinphos Methyl	41.9	Spike	P	0 - 75
2419810	Azoxystrobin	51.9	Spike	F	0 - 39
2419810	Bromacil	17.7	Spike	P	0 - 33
2419810	Butylate	30.9	Spike	P	0 - 44
2419810	Caffeine	3.48	Spike	P	0 - 74
2419810	Carbophenothion	33.8	Spike	F	0 - 25
2419810	Carfentrazone Ethyl	27.9	Spike	F	0 - 27
2419810	Chlorfenapyr	18.6	Spike	P	0 - 24
2419810	Chlorpyrifos Ethyl	26.7	Spike	F	0 - 26
2419810	Chlorpyrifos Methyl	22.7	Spike	P	0 - 26
2419810	Coumaphos	50.6	Spike	F	0 - 28
2419810	Cyanazine	21.0	Spike	P	0 - 48
2419810	Cyprodinil	22.1	Spike	P	0 - 29
2419810	Dechlorane 602	8.94	Spike	P	0 - 30
2419810	Dechlorane 603	5.34	Spike	P	0 - 30
2419810	Dechlorane Plus	10.1	Spike	P	0 - 30
2419810	Demeton	31.3	Spike	P	0 - 33
2419810	Diazinon	18.8	Spike	P	0 - 29
2419810	Difenoconazole	55.0	Spike	F	0 - 34
2419810	Dimethenamid	19.0	Spike	P	0 - 39
2419810	Dimethomorph	38.1	Spike	P	0 - 51
2419810	Disulfoton	13.4	Spike	P	0 - 30
2419810	Dithiopyr	19.1	Spike	P	0 - 26
2419810	EPTC	51.8	Spike	F	0 - 43
2419810	Ethion	22.7	Spike	P	0 - 79
2419810	Ethoprop	32.8	Spike	F	0 - 29
2419810	Etridiazole	36.1	Spike	F	0 - 33
2419810	Fenamiphos	5.74	Spike	P	0 - 40
2419810	Fenbuconazole	33.8	Spike	P	0 - 74
2419810	Fipronil	27.8	Spike	P	0 - 29
2419810	Fipronil Desulfinyl	22.7	Spike	P	0 - 32
2419810	Fipronil Sulfide	13.8	Spike	P	0 - 30
2419810	Fipronil Sulfone	27.6	Spike	P	0 - 33
2419810	Fluazifop-P-butyl	29.4	Spike	P	0 - 38
2419810	Fludioxonil	23.7	Spike	P	0 - 29
2419810	Flumioxazin	42.7	Spike	P	0 - 51
2419810	Flutolanil	8.87	Spike	P	0 - 25
2419810	Fluxapyroxad	28.1	Spike	P	0 - 45
2419810	Fonofos	17.7	Spike	P	0 - 27
2419810	Hexabromobenzene	25.7	Spike	P	0 - 30
2419810	Hexazinone	35.3	Spike	F	0 - 30
2419810	Imazalil	0.743	Spike	P	0 - 100
2419810	Iprodione	16.2	Spike	P	0 - 33
2419810	Loratadine	59.1	Spike	F	0 - 56
2419810	Malathion	29.7	Spike	P	0 - 37
2419810	Metalaxyl	6.39	Spike	P	0 - 40

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P431788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419810	Metolachlor	30.5	Spike	F	0 - 29
2419810	Metribuzin	46.2	Spike	F	0 - 45
2419810	Mevinphos	45.7	Spike	F	0 - 29
2419810	Molinate	25.6	Spike	P	0 - 33
2419810	Myclobutanil	33.6	Spike	F	0 - 26
2419810	Naled	43.3	Spike	F	0 - 37
2419810	Napropamide	4.63	Spike	P	0 - 44
2419810	Norflurazon	34.2	Spike	F	0 - 30
2419810	Octinoxate	2.70	Spike	P	0 - 45
2419810	Oxadiazon	25.2	Spike	P	0 - 28
2419810	Oxybenzone	18.5	Spike	P	0 - 46
2419810	Oxyfluorfen	26.7	Spike	P	0 - 28
2419810	Parathion Ethyl	40.3	Spike	F	0 - 31
2419810	Parathion Methyl	27.8	Spike	P	0 - 29
2419810	PBB-153	13.7	Spike	P	0 - 30
2419810	PBDE-47	7.01	Spike	P	0 - 36
2419810	PBDE-99	15.7	Spike	P	0 - 40
2419810	Pendimethalin	25.3	Spike	P	0 - 33
2419810	Pentabromotoluene	10.1	Spike	P	0 - 30
2419810	Phenytoin	17.8	Spike	P	0 - 100
2419810	Phorate	26.8	Spike	P	0 - 36
2419810	Prodiamine	27.8	Spike	P	0 - 71
2419810	Prometon	8.68	Spike	P	0 - 36
2419810	Prometryn	16.6	Spike	P	0 - 28
2419810	Pronamide	19.6	Spike	P	0 - 24
2419810	Propanil	12.8	Spike	P	0 - 28
2419810	Propargite	12.3	Spike	P	0 - 43
2419810	Propiconazole	16.0	Spike	P	0 - 33
2419810	Pyraflufen Ethyl	22.6	Spike	P	0 - 29
2419810	Pyridaben	20.0	Spike	P	0 - 30
2419810	Pyriproxyfen	34.0	Spike	P	0 - 79
2419810	Simazine	36.6	Spike	F	0 - 29
2419810	Stirophos	17.0	Spike	P	0 - 61
2419810	Sulfentrazone	26.2	Spike	P	0 - 33
2419810	Tebuconazole	3.06	Spike	P	0 - 69
2419810	Terbufos	24.3	Spike	P	0 - 29
2419810	Terbuthylazine	20.4	Spike	P	0 - 32
2419810	Tetradecachloro-m-terphenyl	19.7	Spike	P	0 - 30
2419810	Thiobencarb	17.6	Spike	P	0 - 26
2419810	Tri-o-cresyl Phosphate	3.32	Spike	P	0 - 33
2419810	Triadimefon	24.2	Spike	P	0 - 28
2419810	Tris(1-chloro-2-propyl) phosphate (TCPP)	9.13	Spike	P	0 - 30
2419810	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	14.1	Spike	P	0 - 30
2419810	Tris(2-chloroethyl) phosphate (TCEP)	2.23	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P431789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419763	Acesulfame K	3.19	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P431789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419763	AMPA	4.05	Spike	P	0 - 30
2419763	Endothall	1.23	Spike	P	0 - 30
2419763	Glufosinate	0.600	Spike	P	0 - 30
2419763	Glyphosate	1.25	Spike	P	0 - 30
2419763	Sucralose	0.215	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P431822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419423	2,4-D	3.67	Spike	P	0 - 30
2419423	2,4,5-T	2.94	Spike	P	0 - 30
2419423	Acetaminophen	18.0	Spike	P	0 - 30
2419423	Acetamiprid	6.32	Spike	P	0 - 30
2419423	Afidopyropen	8.40	Spike	P	0 - 30
2419423	Bentazon	15.8	Spike	P	0 - 30
2419423	Benzovindiflupyr	1.67	Spike	P	0 - 30
2419423	Carbamazepine	8.79	Spike	P	0 - 30
2419423	Clothianidin	15.1	Spike	P	0 - 30
2419423	Dinotefuran	14.0	Spike	P	0 - 30
2419423	Diuron	7.21	Spike	P	0 - 30
2419423	Fenuron	4.99	Spike	P	0 - 30
2419423	Fluridone	8.93	Spike	P	0 - 30
2419423	Hydrocodone	4.83	Spike	P	0 - 30
2419423	Ibuprofen	2.93	Spike	P	0 - 30
2419423	Imazapyr	14.9	Spike	P	0 - 30
2419423	Imidacloprid	11.0	Spike	P	0 - 30
2419423	Linuron	14.4	Spike	P	0 - 30
2419423	Mandestrobin	2.83	Spike	P	0 - 30
2419423	MCPP	13.5	Spike	P	0 - 30
2419423	Naproxen	9.51	Spike	P	0 - 30
2419423	Primidone	18.5	Spike	P	0 - 30
2419423	Pyraclostrobin	4.48	Spike	P	0 - 30
2419423	Silvex	10.9	Spike	P	0 - 30
2419423	Thiamethoxam	1.43	Spike	P	0 - 30
2419423	Tolfenpyrad	16.0	Spike	P	0 - 30
2419423	Triclopyr	8.50	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P431955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419404	Total Alkalinity	0.900	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P432257

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

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P432257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419627	TDS	1.75	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P431957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419404	Fluoride	0.487	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P432071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2419813	Organic Carbon	0.136	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2419816
Field Sample ID: G1CE0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	68.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	62.1	P	30 - 160
EPA 8321B	Diuron-d6	32.2	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.1	P	30 - 160
EPA 8321B	Primidone-d5	66.7	P	30 - 160
EPA 8321B	Sucralose-d6	87.5	P	30 - 160

Lab Sample ID: 2419818
Field Sample ID: G1CE0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	62.7	P	20 - 200
EPA 8270E	Simazine-d10	75.7	P	62 - 142
EPA 8270E	Terbufos-d10	72.6	P	58 - 132
EPA 8270E	Terphenyl-d14	89.5	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120051

Included Lab Sample IDs: 2419812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A120052

Included Lab Sample IDs: 2419814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A120056

Included Lab Sample IDs: 2419812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.5	99.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120057

Included Lab Sample IDs: 2419812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120071

Included Lab Sample IDs: 2419813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120093

Included Lab Sample IDs: 2419813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120096

Included Lab Sample IDs: 2419813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.9	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120108

Included Lab Sample IDs: 2419816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	96.1	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120108
Included Lab Sample IDs: 2419816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	94.1	84.5	P/P	50 - 150
Acetaminophen	120	122	P/P	60 - 160
Acetamiprid	107	108	P/P	50 - 150
Afidopyropen	98.0	104	P/P	50 - 150
Bentazon	123	115	P/P	50 - 160
Benzovindiflupyr	105	112	P/P	50 - 150
Carbamazepine	119	116	P/P	60 - 150
Clothianidin	101	111	P/P	60 - 150
Dinotefuran	110	112	P/P	50 - 150
Diuron	121	122	P/P	60 - 160
Fenuron	109	108	P/P	60 - 150
Fluridone	112	113	P/P	60 - 160
Hydrocodone	112	107	P/P	60 - 150
Ibuprofen	87.3	79.0	P/P	50 - 160
Imazapyr	90.5	83.8	P/P	50 - 150
Imidacloprid	98.9	98.9	P/P	60 - 150
Linuron	103	96.3	P/P	60 - 150
Mandestrobin	109	110	P/P	50 - 150
MCPP	84.4	85.8	P/P	50 - 150
Naproxen	127	77.8	P/P	50 - 160
Primidone	99.2	94.7	P/P	60 - 150
Pyraclostrobin	110	117	P/P	60 - 150
Silvex	89.9	82.7	P/P	50 - 150
Thiamethoxam	110	123	P/P	50 - 150
Tolfenpyrad	107	114	P/P	60 - 150
Triclopyr	104	100	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A120110
Included Lab Sample IDs: 2419812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.4	94.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A120110
Included Lab Sample IDs: 2419812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A120145
Included Lab Sample IDs: 2419817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	103	102	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Beryllium	100	99.4	P/P	90 - 110
Boron	99.1	99.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120145

Included Lab Sample IDs: 2419817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	104	103	P/P	90 - 110
Chromium	99.8	99.3	P/P	90 - 110
Cobalt	104	103	P/P	90 - 110
Copper	98.1	96.6	P/P	90 - 110
Lead	106	105	P/P	90 - 110
Manganese	101	102	P/P	90 - 110
Molybdenum	103	101	P/P	90 - 110
Nickel	98.6	97.9	P/P	90 - 110
Selenium	103	102	P/P	90 - 110
Silver	108	107	P/P	90 - 110
Thallium	103	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120150

Included Lab Sample IDs: 2419816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.1	129	P/P	60 - 160
Sucralose	85.8	83.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120153

Included Lab Sample IDs: 2419816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	126	134	P/P	60 - 160
Endothall	91.9	98.0	P/P	60 - 160
Glufosinate	95.7	104	P/P	60 - 160
Glyphosate	109	113	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A120177

Included Lab Sample IDs: 2419813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120182

Included Lab Sample IDs: 2419813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120207

Included Lab Sample IDs: 2419817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	107	P/P	90 - 110
Calcium	99.0	108	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120207

Included Lab Sample IDs: 2419817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	99.1	109	P/P	90 - 110
Magnesium	99.4	109	P/P	90 - 110
Potassium	97.3	104	P/P	90 - 110
Sodium	96.8	104	P/P	90 - 110
Strontium	98.5	108	P/P	90 - 110
Tin	99.3	108	P/P	90 - 110
Titanium	100	107	P/P	90 - 110
Vanadium	100	106	P/P	90 - 110
Zinc	102	108	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120246

Included Lab Sample IDs: 2419818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	86.7		P	80 - 120
Avobenzone	93.6		P	80 - 120
Dechlorane 602	97.9		P	80 - 120
Dechlorane 603	86.5		P	80 - 120
Dechlorane Plus	91.8		P	80 - 120
Hexabromobenzene	86.0		P	80 - 120
Octinoxate	93.4		P	80 - 120
Oxybenzone	92.6		P	80 - 120
PBB-153	85.3		P	80 - 120
PBDE-47	88.6		P	80 - 120
PBDE-99	88.7		P	80 - 120
Pentabromotoluene	96.4		P	80 - 120
Tetradecachloro-m-terphenyl	91.6		P	80 - 120
Tri-o-cresyl Phosphate	95.1		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	100		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	93.7		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	96.5		P	80 - 120

Reference Method: EPA 8270E

Run ID: A120359

Included Lab Sample IDs: 2419818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	89.6		P	80 - 120
Alachlor	90.0		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	93.8		P	80 - 120
Atrazine Desethyl	97.0		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	100		P	80 - 120
Bromacil	98.1		P	80 - 120
Butylate	98.7		P	80 - 120
Caffeine	85.1		P	80 - 120
Carbophenothion	103		P	80 - 120
Carfentrazone Ethyl	102		P	80 - 120
Chlorfenapyr	86.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120359
Included Lab Sample IDs: 2419818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlorpyrifos Ethyl	89.0		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	100		P	80 - 120
Cyanazine	95.3		P	80 - 120
Cyprodinil	95.4		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	96.3		P	80 - 120
Difenoconazole	110		P	80 - 120
Dimethenamid	99.1		P	80 - 120
Dimethomorph	98.9		P	80 - 120
Disulfoton	94.3		P	80 - 120
Dithiopyr	94.5		P	80 - 120
EPTC	102		P	80 - 120
Ethion	87.2		P	80 - 120
Ethoprop	103		P	80 - 120
Etridiazole	97.5		P	80 - 120
Fenamiphos	90.1		P	80 - 120
Fenbuconazole	89.0		P	80 - 120
Fipronil	87.7		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	100		P	80 - 120
Fluazifop-P-butyl	109		P	80 - 120
Fludioxonil	94.1		P	80 - 120
Flumioxazin	106		P	80 - 120
Flutolanil	97.9		P	80 - 120
Fluxapyroxad	98.5		P	80 - 120
Fonofos	95.6		P	80 - 120
Hexazinone	98.6		P	80 - 120
Imazalil	93.6		P	80 - 120
Iprodione	66.6*		F	80 - 120
Loratadine	101		P	80 - 120
Malathion	82.9		P	80 - 120
Metaxyl	86.7		P	80 - 120
Metolachlor	96.6		P	80 - 120
Metribuzin	95.0		P	80 - 120
Mevinphos	98.4		P	80 - 120
Molinate	86.3		P	80 - 120
Myclobutanil	82.9		P	80 - 120
Naled	94.8		P	80 - 120
Napropamide	98.8		P	80 - 120
Norflurazon	99.8		P	80 - 120
Oxadiazon	96.2		P	80 - 120
Oxyfluorfen	101		P	80 - 120
Parathion Ethyl	98.3		P	80 - 120
Parathion Methyl	89.8		P	80 - 120
Pendimethalin	103		P	80 - 120
Phenytoin	112		P	80 - 120
Phorate	90.4		P	80 - 120
Prodiamine	91.0		P	80 - 120
Prometon	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120359
Included Lab Sample IDs: 2419818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometryn	105		P	80 - 120
Pronamide	97.9		P	80 - 120
Propanil	94.2		P	80 - 120
Propargite	98.6		P	80 - 120
Propiconazole	83.9		P	80 - 120
Pyraflufen Ethyl	94.7		P	80 - 120
Pyridaben	99.7		P	80 - 120
Pyriproxyfen	99.3		P	80 - 120
Simazine	88.8		P	80 - 120
Stirophos	91.0		P	80 - 120
Sulfentrazone	104		P	80 - 120
Tebuconazole	97.0		P	80 - 120
Terbufos	96.4		P	80 - 120
Terbutylazine	82.6		P	80 - 120
Thiobencarb	97.7		P	80 - 120
Triadimefon	98.2		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)	99.0					0.587	
EPA 180.1 Rev. 2.0	Turbidity	101					6.83	
EPA 200.7 Rev. 4.4	Barium	100	105	104	101			0.983
	Calcium	100	110	104	99.0			4.24
	Iron	104	109	106	107			2.11
	Magnesium	106	111	109	107			2.18
	Potassium	96.0	101	97.4	97.8			3.09
	Sodium	97.0	105	99.9	94.7			3.52
	Strontium	95.4	101	97.4	97.7			3.73
	Tin	96.0	101	100	100			1.08
	Titanium	99.1	106	105	103			1.19
	Vanadium	96.5	103	101	102			1.25
	Zinc	97.7	103	102	103			1.11
EPA 200.8 Rev. 5.4	Aluminum	101	102	101	102			0.388
	Antimony	103	104	103	105			1.71
	Arsenic	101	100	99.5	101			0.900
	Beryllium	96.4	97.0	99.2	103			2.18
	Boron	107	104	104	105			0.722
	Cadmium	103	102	102	104			0.398
	Chromium	97.4	98.3	97.5	97.0			0.783
	Cobalt	104	103	102	101			1.09
	Copper	98.2	98.9	98.1	97.0			0.777
	Lead	106	106	106	106			0.0775
	Manganese	100	99.6	100	98.7			1.41
	Molybdenum	102	103	102	102			0.983
	Nickel	98.1	97.6	97.4	96.9			0.185
	Selenium	102	102	100	103			1.60
	Silver	110	109	109	108			0.741
	Thallium	101	103	104	104			0.250
EPA 300.0 Rev. 2.1	Chloride	104	107	107			1.68	
	Sulfate	103	103	105			1.75	
EPA 350.1 Rev. 2.0	Ammonia-N	95.6	101	103				1.76
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.8	105	97.1				5.85
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	104				0.0
EPA 365.1 Rev. 2.0	Total-P	97.6	103	100				2.58
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	97.0	99.0				2.04
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	126	79.2	93.9				16.9
	Acetochlor	78.9	66.2	83.0				22.5
	Alachlor	87.2	70.9	75.8				6.65
	Ametryn	113	136	131				3.29
	Atrazine	89.0	58.2	82.8				28.8
	Atrazine Desethyl	85.4	81.8	66.7				20.2
	Avobenzone	139	97.6	93.3				4.47
	Azinphos Methyl	152	107	69.9				41.9
	Azoxystrobin	100	109	63.8				51.9
	Bromacil	86.4	92.1	77.2				17.7
	Butylate	51.0	54.8	40.2				30.9
	Caffeine	104	123	127				3.48
	Carbophenothion	97.4	107	75.9				33.8
	Carfentrazone Ethyl	103	108	81.5				27.9
	Chlorfenapyr	83.3	83.4	69.2				18.6
	Chlorpyrifos Ethyl	86.3	70.7	54.1				26.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Chlorpyrifos Methyl	102	74.8	59.6			22.7
	Coumaphos	143	155	92.3			50.6
	Cyanazine	128	137	111			21.0
	Cyprodinil	90.1	83.2	66.6			22.1
	Dechlorane 602	126	79.4	86.9			8.94
	Dechlorane 603	144	114	120			5.34
	Dechlorane Plus	108	68.9	62.2			10.1
	Demeton	78.9	53.7	73.7			31.3
	Diazinon	91.7	97.4	118			18.8
	Difenoconazole	185	77.4	136			55.0
	Dimethenamid	89.7	55.5	67.2			19.0
	Dimethomorph	95.2	136	200			38.1
	Disulfoton	80.7	75.4	86.2			13.4
	Dithiopyr	81.6	73.7	89.2			19.1
	EPTC	46.8	31.7	53.9			51.8
	Ethion	76.2	51.0	64.1			22.7
	Ethoprop	81.6	60.1	83.7			32.8
	Etridiazole	57.2	50.2	72.3			36.1
	Fenamiphos	88.4	77.2	72.9			5.74
	Fenbuconazole	102	39.3	55.3			33.8
	Fipronil	84.6	74.8	101			27.8
	Fipronil Desulfinyl	85.2	57.2	94.1			22.7
	Fipronil Sulfide	94.2					13.8
	Fipronil Sulfone	92.1	56.3	102			27.6
	Fluazifop-P-butyl	86.4	53.7	72.3			29.4
	Fludioxonil	86.3	55.1	69.9			23.7
	Flumioxazin	181	119	184			42.7
	Flutolanil	94.6	68.3	74.6			8.87
	Fluxapyroxad	89.8	63.1	83.8			28.1
	Fonofos	90.9	62.0	74.0			17.7
	Hexabromobenzene	131	92.3	119			25.7
	Hexazinone	91.9	49.7	91.4			35.3
	Imazalil	90.8	102	101			0.743
	Iprodione	54.7	69.5	81.7			16.2
	Loratadine	190	97.0	178			59.1
	Malathion	87.1	57.7	77.9			29.7
	Metalaxyl	80.5	49.9	53.2			6.39
	Metolachlor	96.0	65.2	88.6			30.5
	Metribuzin	88.2	65.3	104			46.2
	Mevinphos	83.1	55.1	87.7			45.7
	Molinate	51.9	41.6	53.9			25.6
	Myclobutanil	82.5	68.5	96.2			33.6
	Naled	43.2	27.6	42.9			43.3
	Napropamide	86.6	55.4	58.1			4.63
	Norflurazon	85.7	64.5	91.1			34.2
	Octinoxate	124	102	105			2.70
	Oxadiazon	79.3					25.2
	Oxybenzone	126	121	146			18.5
	Oxyfluorfen	104	107	139			26.7
	Parathion Ethyl	91.9	60.6	91.2			40.3
	Parathion Methyl	93.0	59.9	79.2			27.8
	PBB-153	151	104	120			13.7
	PBDE-47	119	90.3	96.8			7.01
	PBDE-99	116	76.4	89.4			15.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pendimethalin	90.8	80.4	104		25.3
	Pentabromotoluene	117	92.1	102		10.1
	Phenytoln	31.7	31.5	37.6		17.8
	Phorate	88.2	69.1	90.4		26.8
	Prodiamine	87.9	27.9	36.9		27.8
	Prometon	114	44.1	48.1		8.68
	Prometryn	119	84.9	100		16.6
	Pronamide	96.7	82.2	101		19.6
	Propanil	97.9	87.1	99.0		12.8
	Propargite	76.2	34.0	38.5		12.3
	Propiconazole	88.6	59.5	69.9		16.0
	Pyraflufen Ethyl	93.9	72.8	91.4		22.6
	Pyridaben	128	60.0	81.2		20.0
	Pyriproxyfen	108	57.6	81.2		34.0
	Simazine	86.4	81.5	56.3		36.6
	Stiophos	61.5	55.0	46.4		17.0
	Sulfentrazone	78.8				26.2
	Tebuconazole	62.0	42.8	41.5		3.06
	Terbufos	89.0	97.9	76.6		24.3
	Terbutylazine	84.9	81.5	66.4		20.4
	Tetradecachloro-m-terphenyl	123	98.4	80.8		19.7
	Thiobencarb	71.0	81.9	68.6		17.6
	Tri-o-cresyl Phosphate	124	107	111		3.32
	Triadimefon	78.6	91.2	71.5		24.2
	Tris(1-chloro-2-propyl) phosphate (TCPP)	107	97.1	87.9		9.13
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111	107	123		14.1
	Tris(2-chloroethyl) phosphate (TCEP)	124	129	132		2.23
EPA 8321B	2,4-D	110	107	111		3.67
	2,4,5-T	97.6	115	111		2.94
	Acesulfame K	101	111	115		3.19
	Acetaminophen	72.8	66.5	79.7		18.0
	Acetamiprid	72.9	73.4	78.2		6.32
	Afidopyropen	51.2	52.8	57.4		8.40
	AMPA	117	130	124		4.05
	Bentazon	117	78.5	91.9		15.8
	Benzovindiflupyr	86.3	80.3	81.6		1.67
	Carbamazepine	85.7	71.4	77.9		8.79
	Clothianidin	89.9	93.5	109		15.1
	Dinotefuran	85.1	79.1	91.0		14.0
	Diuron	85.2	30.0	32.2		7.21
	Endothall	95.8	101	102		1.23
	Fenuron	88.9	74.3	78.1		4.99
	Fluridone	95.5	84.4	93.5		8.93
	Glufosinate	94.9	90.3	90.8		0.600
	Glyphosate	105	92.9	94.1		1.25
	Hydrocodone	87.7	75.6	79.3		4.83
	Ibuprofen	76.4	58.1	56.4		2.93
	Imazapyr	79.6	80.0	92.9		14.9
	Imidacloprid	86.6	113	126		11.0
	Linuron	87.3	58.4	67.4		14.4
	Mandestrobin	84.3	83.4	85.8		2.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	MCCP	91.7	110	126		
	Naproxen	82.9	74.3	81.7		
	Primidone	74.9	79.2	95.3		
	Pyraclostrobin	76.0	80.5	84.2		
	Silvex	84.2	92.3	103		
	Sucralose	89.5	92.4	92.2		
	Thiamethoxam	86.4	87.6	88.9		
	Tolfenpyrad	53.7	55.3	64.9		
	Triclopyr	88.4	101	110		
SM 2320 B-2011	Total Alkalinity	97.2				0.900
SM 2540 C-2015	TDS	96.8				1.75
SM 2540 D-2015	TSS	97.4				
SM 4500-F- C-2011	Fluoride	99.4	100	101		
SM 5310 B-2011	Organic Carbon	95.2	93.8	93.6		

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2419812
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2419812
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2419817
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2419817
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2419812
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2419812
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2419813
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2419813
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2419813
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2419813
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2419814
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2419818
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2419818
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2419816
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2419812
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2419817
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2419812
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2419812
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2419812
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2419813

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	06/27/2023			06/27/2023 13:48	Samantha L Bates	2419812
EPA 180.1 Rev. 2.0	06/27/2023			06/27/2023 12:38	Alexis Price	2419812
EPA 200.7 Rev. 4.4	06/27/2023	06/29/2023 11:55	George D Taylor	07/06/2023 14:02	Chase Roberts	2419817
EPA 200.8 Rev. 5.4	06/27/2023	06/29/2023 11:55	George D Taylor	06/30/2023 15:56	Conrad Hartmann	2419817
EPA 300.0 Rev. 2.1	06/27/2023			06/28/2023 20:22	James L Waggeberby	2419812
EPA 350.1 Rev. 2.0	06/27/2023			06/28/2023 12:23	Khloe J Berg	2419813
EPA 351.2 Rev. 2.0	06/27/2023	06/28/2023 11:03	Dana G. Hughes	06/29/2023 12:44	Ping Hua	2419813
EPA 353.2 Rev. 2.0	06/27/2023			07/05/2023 10:05	Beverly Y. Sanders	2419813
EPA 365.1 Rev. 2.0	06/27/2023	06/28/2023 14:40	Adam P Silver	06/29/2023 12:01	James L Waggeberby	2419813
EPA 365.1 Rev. 2.0 dissolved	06/27/2023			06/27/2023 12:56	Adam P Silver	2419814
EPA 8270E	06/27/2023	06/29/2023 08:00	Fe-Val Siddell	06/30/2023 15:36	Vandana T. Nagar	2419818
	06/27/2023	06/29/2023 08:00	Fe-Val Siddell	07/07/2023 18:39	Arthur Maknenko	2419818
EPA 8321B	06/27/2023	06/28/2023 08:30	Hoor Shaik	06/29/2023 02:20	Juyoung Kim	2419816
	06/27/2023	06/29/2023 16:00	Hana Lee	06/30/2023 19:14	Tae K Lee	2419816
	06/27/2023	06/29/2023 16:00	Hana Lee	07/01/2023 14:27	Tae K Lee	2419816
SM 2320 B-2011	06/27/2023			06/29/2023 02:19	Dale L. Simmons	2419812
SM 2340 B-2011	06/27/2023			07/06/2023 14:02	Chase Roberts	2419817
SM 2540 C-2015	06/27/2023			06/28/2023 14:17	Yijie Li	2419812
SM 2540 D-2015	06/27/2023			06/28/2023 14:17	Yijie Li	2419812
SM 4500-F- C-2011	06/27/2023			06/29/2023 02:19	Dale L. Simmons	2419812
SM 5310 B-2011	06/27/2023			07/05/2023 17:22	Elise M. Gillis	2419813