

Chemical Analysis Report

NW-DIST-2023-06-14-01

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

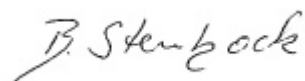
Event Description: **Lake Defuniak LVI**
Request ID: **RQ-2023-06-12-62**
Customer: **NW-DIST**
Project ID: **SMP**

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

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

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

Date Certified: 30-JUN-2023 17:09



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: LAKE DEFUNIAK

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

Field ID: G3NW0222

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417106	DEP SOP: NU-094-1	Color (true)	4.3	I	PCU	P431261	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P431279	
	EPA 300.0 Rev. 2.1	Chloride	2.1		mg Cl/L	P431376	
		Sulfate	0.40	I	mg SO4/L	P431380	
	SM 2320 B-2011	Total Alkalinity	3.2		mg CaCO3/L	P431493	
	SM 2540 C-2015	TDS	15	U	mg/L	P431655	
	SM 2540 D-2015	TSS	2	I	mg/L	P431521	
2417107	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P431495	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P431488	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P431639	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P431472	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P431731	
2417108	SM 5310 B-2011	Organic Carbon	7.7		mg C/L	P431477	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P431258	
2417110	EPA 8321B	2,4-D	0.0031	I	ug/L	P431246	
		Acesulfame K	0.10	U	ug/L	P431182	
		2,4,5-T	0.0040	U	ug/L	P431246	
		AMPA	0.10	U	ug/L	P431182	
		Acetaminophen	0.0080	U	ug/L	P431246	
		Acetamiprid	0.0020	U	ug/L	P431246	
		Endothall	0.25	U	ug/L	P431182	
		Glufosinate	0.10	U	ug/L	P431182	
		Glyphosate	0.10	U	ug/L	P431182	
		Afidopyrophen	0.0020	U	ug/L	P431246	
		Bentazon	8.0E-04	U	ug/L	P431246	
		Sucralose	0.013	I	ug/L	P431182	
		Benzovindiflupyr	0.0020	U	ug/L	P431246	
		Carbamazepine	8.0E-04	U	ug/L	P431246	
		Clothianidin	0.0020	U	ug/L	P431246	
		Dinotefuran	0.0020	U	ug/L	P431246	
		Diuron	0.0020	U	ug/L	P431246	
		Fenuron	0.032	U	ug/L	P431246	
		Fluridone	8.0E-04	U	ug/L	P431246	
		Imazapyr	0.0040	U	ug/L	P431246	
		Hydrocodone	0.0020	U	ug/L	P431246	
		Ibuprofen	0.080	U	ug/L	P431246	
		Imidacloprid	0.0020	U	ug/L	P431246	
		Linuron	0.0040	U	ug/L	P431246	
		Mandestrobin	0.0020	U	ug/L	P431246	
		MCPD	0.0020	U	ug/L	P431246	
		Naproxen	0.0080	U	ug/L	P431246	
		Primidone	0.0040	U	ug/L	P431246	
		Pyraclostrobin	0.0020	U	ug/L	P431246	

Field ID: G3NW0222

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417110	EPA 8321B	Silvex	0.0040	U	ug/L	P431246	
		Thiamethoxam	0.0020	U	ug/L	P431246	
		Tolfenpyrad	0.0020	U	ug/L	P431246	
		Triclopyr	0.0040	U	ug/L	P431246	
2417111	EPA 200.7 Rev. 4.4	Calcium	1.35		mg/L	P431295	
		Iron	30	U	ug/L	P431295	
		Magnesium	0.44		mg/L	P431295	
		Potassium	0.51	I	mg/L	P431295	
		Sodium	1.1	I	mg/L	P431295	
		Strontium	4.9	I	ug/L	P431295	
		Tin	3.0	U	ug/L	P431295	
		Titanium	0.75	U	ug/L	P431295	
		Vanadium	2.0	U	ug/L	P431295	
		Zinc	5.0	U	ug/L	P431295	
	EPA 200.8 Rev. 5.4	Aluminum	34		ug/L	P431295	
		Antimony	0.24		ug/L	P431295	
		Arsenic	1.66		ug/L	P431295	
		Barium	4.91		ug/L	P431295	
		Beryllium	0.010	U	ug/L	P431295	
		Boron	9.5		ug/L	P431295	
		Cadmium	0.020	U	ug/L	P431295	
		Chromium	0.40	U	ug/L	P431295	
		Cobalt	0.020	U	ug/L	P431295	
		Copper	0.58	I	ug/L	P431295	
		Lead	0.48		ug/L	P431295	
		Manganese	1.35		ug/L	P431295	
		Molybdenum	0.15	U	ug/L	P431295	
		Nickel	0.50	U	ug/L	P431295	
		Selenium	0.20	U	ug/L	P431295	
		Silver	0.010	U	ug/L	P431295	
		Thallium	0.10	U	ug/L	P431295	
	SM 2340 B-2011	Hardness	5.2		mg/L	P431295	
2417112	EPA 8270E	Oxybenzone**	10	U	ng/L	P431169	
		Acetochlor	0.20	U	ng/L	P431169	
		Octinoxate**	20	UJ	ng/L	P431169	LCS
		Alachlor	0.41	U	ng/L	P431169	
		Avobenzone**	100	U	ng/L	P431169	
		Ametryn	1.1	U	ng/L	P431169	
		Atrazine	11		ng/L	P431169	
		PBDE-47**	4.1	U	ng/L	P431169	
		Atrazine Desethyl	1.3	U	ng/L	P431169	
		PBDE-99**	5.1	U	ng/L	P431169	
		Azinphos Methyl	3.1	U	ng/L	P431169	
		Tri-o-cresyl Phosphate**	6.1	U	ng/L	P431169	
		Azoxystrobin	0.41	U	ng/L	P431169	

Field ID: G3NW0222

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417112	EPA 8270E	Bromacil	0.61	U	ng/L	P431169	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P431169	
		Butylate	0.20	U	ng/L	P431169	
		Dechlorane Plus**	31	U	ng/L	P431169	
		Caffeine**	13	I	ng/L	P431169	
		Dechlorane 602**	5.1	U	ng/L	P431169	
		Carbophenothion	0.51	U	ng/L	P431169	
		Dechlorane 603**	4.1	U	ng/L	P431169	
		Carfentrazone Ethyl	0.15	U	ng/L	P431169	
		Hexabromobenzene**	6.1	U	ng/L	P431169	
		Chlorfenapyr	0.31	U	ng/L	P431169	
		PBB-153**	8.1	U	ng/L	P431169	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P431169	
		Pentabromotoluene**	3.1	U	ng/L	P431169	
		Chlorpyrifos Methyl	0.10	U	ng/L	P431169	
		Tris(2-chloroethyl) phosphate (TCEP)**	71	U	ng/L	P431169	
		Coumaphos	1.1	U	ng/L	P431169	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	27	I	ng/L	P431169	
		Cyanazine	5.1	U	ng/L	P431169	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.5	U	ng/L	P431169	
		Cyprodinil	0.20	U	ng/L	P431169	
		Tetradecachloro-m-terphenyl**	7.6	U	ng/L	P431169	
		Demeton	3.6	U	ng/L	P431169	
		Diazinon	0.13	U	ng/L	P431169	
		Difenoconazole	0.61	U	ng/L	P431169	
		Dimethenamid	0.10	U	ng/L	P431169	
		Dimethomorph	0.31	U	ng/L	P431169	
		Disulfoton	0.61	U	ng/L	P431169	
		Dithiopyr	1.0	U	ng/L	P431169	
		EPTC	0.51	U	ng/L	P431169	
		Ethion	0.31	U	ng/L	P431169	
		Ethoprop	0.13	U	ng/L	P431169	
		Etridiazole	0.10	U	ng/L	P431169	
		Fenamiphos	0.46	U	ng/L	P431169	
		Fenbuconazole	0.51	U	ng/L	P431169	
		Fipronil	0.20	U	ng/L	P431169	
		Fipronil Desulfinyl**	0.10	U	ng/L	P431169	
		Fipronil Sulfide	0.10	U	ng/L	P431169	
		Fipronil Sulfone	0.10	U	ng/L	P431169	
		Fluazifop-P-butyl	0.10	U	ng/L	P431169	
		Fludioxonil	0.10	U	ng/L	P431169	
		Flumioxazin	3.1	U	ng/L	P431169	
		Flutolanil	0.10	U	ng/L	P431169	
		Fluxapyroxad	0.25	U	ng/L	P431169	

Field ID: G3NW0222

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2417112	EPA 8270E	Fonofos	0.15	U	ng/L	P431169	
		Hexazinone	0.51	U	ng/L	P431169	
		Imazalil	0.66	U	ng/L	P431169	
		Iprodione	0.51	U	ng/L	P431169	
		Loratadine**	0.31	U	ng/L	P431169	
		Malathion	0.36	U	ng/L	P431169	
		Metalaxyl	0.51	U	ng/L	P431169	
		Metolachlor	2.0	I	ng/L	P431169	
		Metribuzin	0.41	U	ng/L	P431169	
		Mevinphos	1.0	U	ng/L	P431169	
		Molinate	0.25	U	ng/L	P431169	
		Myclobutanil	0.36	U	ng/L	P431169	
		Naled	2.5	U	ng/L	P431169	
		Napropamide	0.71	U	ng/L	P431169	
		Norflurazon	1.0	U	ng/L	P431169	
		Oxadiazon	0.36	U	ng/L	P431169	
		Oxyfluorfen	0.20	U	ng/L	P431169	
		Parathion Ethyl	0.15	U	ng/L	P431169	
		Parathion Methyl	0.20	U	ng/L	P431169	
		Pendimethalin	0.76	UJ	ng/L	P431169	LCS, MS
		Phenytol**	5.4	U	ng/L	P431169	
		Phorate	0.25	U	ng/L	P431169	
		Prodiamine	0.20	U	ng/L	P431169	
		Prometon	3.1	U	ng/L	P431169	
		Prometryn	0.36	U	ng/L	P431169	
		Pronamide	0.10	U	ng/L	P431169	
		Propanil	0.10	U	ng/L	P431169	
		Propargite	0.81	U	ng/L	P431169	
		Propiconazole	0.61	U	ng/L	P431169	
		Pyraflufen Ethyl	0.31	U	ng/L	P431169	
		Pyridaben	1.4	U	ng/L	P431169	
		Pyriproxyfen	0.25	U	ng/L	P431169	
		Simazine	0.25	U	ng/L	P431169	
		Stirophos	0.41	U	ng/L	P431169	
		Sulfentrazone	1.4	U	ng/L	P431169	
		Tebuconazole	1.4	U	ng/L	P431169	
		Terbufos	0.20	U	ng/L	P431169	
		Terbutylazine	0.20	U	ng/L	P431169	
		Thiobencarb	0.51	U	ng/L	P431169	
		Triadimefon	0.15	U	ng/L	P431169	

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

EPA 8270E: MS accuracy for atrazine 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.

Non-Conformance Report

NCR ID: 9923

Event(s)

NW-DIST-2023-06-14-01

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

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

Resolution: Samples will be qualified as appropriate.

Authorized by/Date: Kerry Tate, Ph.D. 6/21/2023

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P431261

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431279

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431295

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: P431295

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: P431376

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: P431380

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431488

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431472

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431731

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431258

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

Reference Method: EPA 8270E
Batch ID: P431169

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	120	I	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: P431169

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: P431169

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: P431169

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	110		ng/L
Octinoxate	200		ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytol	5.3	U	ng/L
Phenytol	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiatone	0.20	U	ng/L
Prodiatone	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P431169

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: P431182

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: P431246

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P431246

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
MCPPP	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: P431493

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

Reference Method: SM 2540 C-2015

Batch ID: P431655

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P431521

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P431495

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P431477

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: P431261

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431279

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431295

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	98.0		P	85 - 115
Iron	101		P	85 - 115
Magnesium	100		P	85 - 115
Potassium	99.3		P	85 - 115
Sodium	96.0		P	85 - 115
Strontium	99.2		P	85 - 115
Tin	102		P	85 - 115
Titanium	100		P	85 - 115
Vanadium	98.7		P	85 - 115
Zinc	99.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431295

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	103		P	85 - 115
Barium	105		P	85 - 115
Beryllium	98.8		P	85 - 115
Boron	105		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	97.3		P	85 - 115
Cobalt	103		P	85 - 115
Copper	102		P	85 - 115
Lead	98.4		P	85 - 115
Manganese	97.7		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	102		P	85 - 115
Selenium	103		P	85 - 115
Silver	108		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431376

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431380

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431488

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: P431639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431472

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: P431731

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431258

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

Reference Method: EPA 8270E
Batch ID: P431169

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	128		P	42 - 162
Acetochlor	79.5		P	69 - 123
Alachlor	75.7		P	65 - 118
Ametryn	111		P	58 - 141
Atrazine	93.1		P	73 - 118
Atrazine Desethyl	76.6		P	32 - 125
Avobenzone	130		P	40 - 203
Azinphos Methyl	112		P	36 - 197
Azoxystrobin	98.2		P	58 - 226
Bromacil	112		P	48 - 120
Butylate	67.2		P	27 - 85.0
Caffeine	86.8		P	40 - 137
Carbophenothion	109		P	54 - 132
Carfentrazone Ethyl	113		P	60 - 142
Chlorfenapyr	78.7		P	53 - 117
Chlorpyrifos Ethyl	87.8		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P431169

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	100		P	66 - 119
Coumaphos	133		P	11 - 234
Cyanazine	137		P	61 - 248
Cyprodinil	94.2		P	50 - 147
Dechlorane 602	109		P	50 - 150
Dechlorane 603	140		P	50 - 150
Dechlorane Plus	113		P	47 - 182
Demeton	75.6		P	30 - 138
Diazinon	114		P	67 - 126
Difenoconazole	105		P	38 - 205
Dimethenamid	90.6		P	57 - 111
Dimethomorph	93.9		P	16 - 212
Disulfoton	101		P	46 - 126
Dithiopyr	105		P	62 - 115
EPTC	61.2		P	28 - 80.0
Ethion	100		P	24 - 122
Ethoprop	96.0		P	62 - 113
Etridiazole	73.9		P	28 - 92.0
Fenamiphos	80.0		P	57 - 128
Fenbuconazole	73.1		P	52 - 155
Fipronil	80.9		P	63 - 130
Fipronil Desulfinyl	99.5		P	61 - 130
Fipronil Sulfide	86.8		P	56 - 117
Fipronil Sulfone	83.5		P	52 - 118
Fluazifop-P-butyl	68.8		P	61 - 128
Fludioxonil	79.3		P	59 - 129
Flumioxazin	160		P	30 - 250
Flutolanil	83.9		P	53 - 127
Fluxapyroxad	91.1		P	42 - 132
Fonofos	87.4		P	61 - 110
Hexabromobenzene	134		P	50 - 150
Hexazinone	98.6		P	46 - 139
Imazalil	64.7		P	40 - 139
Iprodione	88.2		P	40 - 146
Loratadine	146		P	10 - 224
Malathion	103		P	61 - 135
Metaxyl	102		P	58 - 121
Metolachlor	89.1		P	64 - 118
Metribuzin	99.6		P	45 - 245
Mevinphos	84.3		P	49 - 118
Molinate	65.2		P	42 - 92.0
Myclobutanil	107		P	55 - 127
Naled	37.1		P	10 - 114
Napropamide	77.5		P	39 - 121
Norflurazon	98.6		P	55 - 129
Octinoxate	171		F	26 - 166
Oxadiazon	86.3		P	54 - 115
Oxybenzone	115		P	49 - 135
Oxyfluorfen	110		P	64 - 139
Parathion Ethyl	92.7		P	70 - 111
Parathion Methyl	96.7		P	76 - 136
PBB-153	143		P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P431169

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	119		P	41 - 148
PBDE-99	117		P	38 - 147
Pendimethalin	151		F	52 - 118
Pentabromotoluene	115		P	50 - 150
Phenytoin	147		P	10 - 162
Phorate	107		P	40 - 122
Prodiamine	78.8		P	26 - 141
Prometon	104		P	54 - 122
Prometryn	97.2		P	61 - 128
Pronamide	117		P	72 - 121
Propanil	113		P	45 - 144
Propargite	95.3		P	10 - 199
Propiconazole	78.0		P	56 - 127
Pyraflufen Ethyl	61.0		P	56 - 140
Pyridaben	85.1		P	26 - 211
Pyriproxyfen	80.1		P	33 - 194
Simazine	93.2		P	67 - 121
Stirophos	96.3		P	20 - 142
Sulfentrazone	54.8		P	21 - 144
Tebuconazole	87.2		P	10 - 122
Terbufos	107		P	60 - 129
Terbutylazine	88.3		P	69 - 113
Tetradecachloro-m-terphenyl	180		P	70 - 200
Thiobencarb	114		P	51 - 120
Tri-o-cresyl Phosphate	122		P	49 - 150
Triadimefon	101		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	99.6		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	119		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	116		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P431182

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	93.0		P	40 - 150
AMPA	106		P	40 - 150
Endothall	102		P	40 - 150
Glufosinate	92.7		P	40 - 150
Glyphosate	87.1		P	40 - 150
Sucralose	82.6		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P431246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	88.8		P	40 - 150
2,4,5-T	86.2		P	40 - 150
Acetaminophen	55.2		P	30 - 150
Acetamiprid	77.9		P	40 - 150
Afidopyropen	70.3		P	30 - 150
Bentazon	106		P	30 - 150
Benzovindiflupyr	77.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P431246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	71.7		P	40 - 150
Clothianidin	82.1		P	40 - 150
Dinotefuran	84.2		P	40 - 150
Diuron	74.8		P	40 - 150
Fenuron	73.5		P	40 - 150
Fluridone	83.7		P	40 - 150
Hydrocodone	81.9		P	40 - 150
Ibuprofen	66.4		P	40 - 150
Imazapyr	81.1		P	40 - 150
Imidacloprid	76.8		P	40 - 150
Linuron	49.8		P	40 - 150
Mandestrobin	77.3		P	40 - 150
MCPP	90.9		P	40 - 150
Naproxen	48.8		P	40 - 150
Primidone	74.7		P	40 - 150
Pyraclostrobin	65.5		P	40 - 150
Silvex	99.6		P	40 - 150
Thiamethoxam	78.6		P	40 - 150
Tolfenpyrad	50.9		P	30 - 150
Triclopyr	85.3		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P431493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.6		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P431655

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

Reference Method: SM 2540 D-2015

Batch ID: P431521

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	88.8		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P431495

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

Reference Method: SM 5310 B-2011

Batch ID: P431477

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: P431295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416983	Calcium	91.9		P	80 - 120
2416983	Iron	99.2	98.9	P/P	80 - 120
2416983	Magnesium	97.9	97.2	P/P	80 - 120
2416983	Potassium	98.7	99.2	P/P	80 - 120
2416983	Sodium	97.2	98.1	P/P	80 - 120
2416983	Strontium	98.5	99.3	P/P	80 - 120
2416983	Tin	101	99.0	P/P	80 - 120
2416983	Titanium	98.1	99.1	P/P	80 - 120
2416983	Vanadium	94.2	95.2	P/P	80 - 120
2416983	Zinc	88.1	87.8	P/P	80 - 120
2416988	Calcium	98.0		P	80 - 120
2416988	Iron	103		P	80 - 120
2416988	Magnesium	101		P	80 - 120
2416988	Potassium	101		P	80 - 120
2416988	Sodium	97.8		P	80 - 120
2416988	Strontium	103		P	80 - 120
2416988	Tin	104		P	80 - 120
2416988	Titanium	103		P	80 - 120
2416988	Vanadium	99.0		P	80 - 120
2416988	Zinc	94.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P431295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416983	Aluminum	100	103	P/P	80 - 120
2416983	Antimony	106	108	P/P	80 - 120
2416983	Arsenic	103	105	P/P	80 - 120
2416983	Barium	106	109	P/P	80 - 120
2416983	Beryllium	94.7	95.5	P/P	80 - 120
2416983	Boron	106	106	P/P	80 - 120
2416983	Cadmium	105	107	P/P	80 - 120
2416983	Chromium	94.9	97.4	P/P	80 - 120
2416983	Cobalt	100	103	P/P	80 - 120
2416983	Copper	97.2	99.6	P/P	80 - 120
2416983	Lead	98.2	100	P/P	80 - 120
2416983	Manganese	95.7	99.3	P/P	80 - 120
2416983	Molybdenum	104	107	P/P	80 - 120
2416983	Nickel	98.5	102	P/P	80 - 120
2416983	Selenium	103	106	P/P	80 - 120
2416983	Silver	108	110	P/P	80 - 120
2416983	Thallium	104	107	P/P	80 - 120
2416988	Aluminum	102		P	80 - 120
2416988	Antimony	107		P	80 - 120
2416988	Arsenic	104		P	80 - 120
2416988	Barium	106		P	80 - 120
2416988	Beryllium	96.5		P	80 - 120
2416988	Boron	103		P	80 - 120
2416988	Cadmium	104		P	80 - 120
2416988	Chromium	95.8		P	80 - 120
2416988	Cobalt	100		P	80 - 120
2416988	Copper	99.2		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P431295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416988	Lead	98.1		P	80 - 120
2416988	Manganese	97.4		P	80 - 120
2416988	Molybdenum	104		P	80 - 120
2416988	Nickel	100		P	80 - 120
2416988	Selenium	104		P	80 - 120
2416988	Silver	107		P	80 - 120
2416988	Thallium	104		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P431376

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417011	Chloride	103		P	90 - 110
2417036	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P431380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417011	Sulfate	101		P	90 - 110
2417036	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P431488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417042	Ammonia-N	96.0	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P431639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417221	Kjeldahl Nitrogen	104	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P431472

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417089	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P431731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417107	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P431258

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417108	O-Phosphate-P	99.7	99.1	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416029	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	114	120	P/P	26 - 165
2416029	Acetochlor	79.4	85.0	P/P	67 - 124
2416029	Alachlor	80.5	76.8	P/P	60 - 120
2416029	Ametryn	113	131	P/P	54 - 216
2416029	Atrazine Desethyl	95.1	109	P/P	15 - 122
2416029	Avobenzone	139	123	P/P	37 - 178
2416029	Azinphos Methyl	107	116	P/P	40 - 292
2416029	Azoxystrobin	133	139	P/P	35 - 220
2416029	Bromacil	104	91.9	P/P	45 - 127
2416029	Butylate	61.7	54.0	P/P	20 - 83.0
2416029	Caffeine	111	99.0	P/P	10 - 194
2416029	Carbophenothion	106	111	P/P	57 - 127
2416029	Carfentrazone Ethyl	110	117	P/P	51 - 141
2416029	Chlorfenapyr	87.2	87.7	P/P	46 - 111
2416029	Chlorpyrifos Ethyl	113	96.5	P/P	52 - 120
2416029	Chlorpyrifos Methyl	104	108	P/P	63 - 119
2416029	Coumaphos	111	136	P/P	10 - 228
2416029	Cyanazine	170	148	P/P	59 - 241
2416029	Cyprodinil	101	88.2	P/P	47 - 146
2416029	Dechlorane 602	78.6	85.7	P/P	50 - 150
2416029	Dechlorane 603	136	135	P/P	50 - 150
2416029	Dechlorane Plus	93.6	93.0	P/P	50 - 150
2416029	Demeton	86.1	83.5	P/P	40 - 136
2416029	Diazinon	112	114	P/P	69 - 132
2416029	Difenoconazole	87.4	103	P/P	57 - 258
2416029	Dimethenamid	90.8	97.7	P/P	54 - 110
2416029	Dimethomorph	193	161	P/P	28 - 210
2416029	Disulfoton	110	106	P/P	43 - 133
2416029	Dithiopyr	110	113	P/P	39 - 116
2416029	EPTC	58.3	48.1	P/P	20 - 78.0
2416029	Ethion	112	96.7	P/P	17 - 119
2416029	Ethoprop	103	98.8	P/P	66 - 120
2416029	Etridiazole	67.8	62.0	P/P	28 - 96.0
2416029	Fenamiphos	92.3	89.3	P/P	41 - 126
2416029	Fenbuconazole	76.8	80.6	P/P	42 - 169
2416029	Fipronil	79.4	80.3	P/P	61 - 132
2416029	Fipronil Desulfinyl	94.3	97.4	P/P	56 - 132
2416029	Fipronil Sulfide	91.7	87.8	P/P	48 - 119
2416029	Fipronil Sulfone	69.7	85.7	P/P	42 - 131
2416029	Fluazifop-P-butyl	71.7	71.6	P/P	53 - 131
2416029	Fludioxonil	90.1	91.5	P/P	56 - 127
2416029	Flumioxazin	127	142	P/P	19 - 300
2416029	Flutolanil	81.3	83.6	P/P	41 - 127
2416029	Fluxapyroxad	79.8	93.4	P/P	42 - 172
2416029	Fonofos	96.7	89.2	P/P	59 - 113
2416029	Hexabromobenzene	138	129	P/P	50 - 150
2416029	Hexazinone	103	111	P/P	66 - 122
2416029	Imazalil	49.1	78.8	P/P	21 - 283
2416029	Iprodione	89.9	99.1	P/P	43 - 150
2416029	Loratadine	141	151	P/P	23 - 201
2416029	Malathion	99.7	101	P/P	58 - 136
2416029	Metalaxyl	93.3	95.3	P/P	55 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416029	Metolachlor	109	113	P/P	57 - 121
2416029	Metribuzin	107	110	P/P	58 - 294
2416029	Mevinphos	96.4	90.7	P/P	50 - 126
2416029	Molinate	64.1	59.4	P/P	42 - 93.0
2416029	Myclobutanil	110	108	P/P	55 - 125
2416029	Naled	35.9	38.5	P/P	18 - 200
2416029	Napropamide	70.3	77.9	P/P	39 - 110
2416029	Norflurazon	95.5	98.3	P/P	48 - 128
2416029	Octinoxate	142	104	P/P	21 - 159
2416029	Oxadiazon	92.1	96.3	P/P	43 - 112
2416029	Oxybenzone	128	121	P/P	41 - 142
2416029	Oxyfluorfen	121	114	P/P	64 - 153
2416029	Parathion Ethyl	109	101	P/P	69 - 114
2416029	Parathion Methyl	110	111	P/P	79 - 139
2416029	PBB-153	149	147	P/P	50 - 150
2416029	PBDE-47	97.1	100	P/P	27 - 144
2416029	PBDE-99	92.4	96.0	P/P	18 - 150
2416029	Pendimethalin	172	150	F/F	50 - 139
2416029	Pentabromotoluene	123	111	P/P	50 - 150
2416029	Phenytoin	109	94.9	P/P	10 - 146
2416029	Phorate	137	113	P/P	54 - 161
2416029	Prodiamine	75.3	70.6	P/P	30 - 161
2416029	Prometon	95.3	96.1	P/P	45 - 134
2416029	Prometryn	95.8	109	P/P	45 - 137
2416029	Pronamide	118	109	P/P	65 - 133
2416029	Propanil	114	116	P/P	49 - 142
2416029	Propargite	65.4	82.2	P/P	10 - 203
2416029	Propiconazole	81.9	86.9	P/P	38 - 146
2416029	Pyraflufen Ethyl	69.9	62.0	P/P	34 - 153
2416029	Pyridaben	91.9	106	P/P	12 - 192
2416029	Pyriproxyfen	89.9	94.5	P/P	33 - 180
2416029	Simazine	111	99.0	P/P	51 - 157
2416029	Stiropfos	76.2	72.1	P/P	10 - 128
2416029	Sulfentrazone	89.4	101	P/P	53 - 186
2416029	Tebuconazole	65.0	76.3	P/P	10 - 133
2416029	Terbufos	115	106	P/P	65 - 139
2416029	Terbutylazine	91.1	91.1	P/P	66 - 117
2416029	Tetradecachloro-m-terphenyl	180	169	P/P	70 - 200
2416029	Thiobencarb	108	101	P/P	51 - 119
2416029	Tri-o-cresyl Phosphate	134	121	P/P	31 - 144
2416029	Triadimefon	117	111	P/P	48 - 119
2416029	Tris(1-chloro-2-propyl) phosphate (TCPP)	115	90.0	P/P	50 - 150
2416029	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	125	114	P/P	50 - 150
2416029	Tris(2-chloroethyl) phosphate (TCEP)	126	114	P/P	70 - 180

Reference Method: EPA 8321B

Batch ID: P431182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416648	Acesulfame K	104	107	P/P	40 - 150
2416648	AMPA	72.8	70.7	P/P	40 - 150
2416648	Endothall	101	106	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P431182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416648	Glufosinate	79.5	84.7	P/P	40 - 150
2416648	Glyphosate	65.9	70.8	P/P	40 - 150
2416648	Sucralose	87.9	68.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P431246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416425	2,4-D	92.9	97.8	P/P	40 - 150
2416425	2,4,5-T	98.6	98.5	P/P	40 - 150
2416425	Acetaminophen	58.9	62.4	P/P	30 - 150
2416425	Acetamiprid	63.8	64.1	P/P	40 - 150
2416425	Afidopyropen	49.2	65.5	P/P	30 - 150
2416425	Benzovindiflupyr	79.6	86.2	P/P	40 - 150
2416425	Carbamazepine	57.5	71.7	P/P	40 - 150
2416425	Clothianidin	95.8	99.1	P/P	40 - 150
2416425	Dinotefuran	74.4	77.3	P/P	40 - 150
2416425	Diuron	73.1	67.0	P/P	40 - 150
2416425	Fenuron	59.4	63.2	P/P	40 - 150
2416425	Fluridone	72.6	72.1	P/P	40 - 150
2416425	Hydrocodone	71.5	72.2	P/P	40 - 150
2416425	Ibuprofen	67.4	87.4	P/P	40 - 150
2416425	Imazapyr	90.5	96.0	P/P	40 - 150
2416425	Imidacloprid	125	126	P/P	40 - 150
2416425	Linuron	69.2	65.9	P/P	40 - 150
2416425	Mandestrobin	81.7	86.6	P/P	40 - 150
2416425	MCPP	103	102	P/P	40 - 150
2416425	Naproxen	116	109	P/P	40 - 150
2416425	Primidone	71.2	66.3	P/P	40 - 150
2416425	Pyraclostrobin	76.2	94.5	P/P	40 - 150
2416425	Silvex	81.5	83.4	P/P	40 - 150
2416425	Thiamethoxam	115	94.5	P/P	40 - 150
2416425	Tolfenpyrad	55.7	59.8	P/P	30 - 150
2416425	Triclopyr	107	101	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P431495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416966	Fluoride	99.6	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P431477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2417019	Organic Carbon	93.3	94.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P431261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416904	Color (true)	3.63	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417010	Turbidity	1.56	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P431295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416983	Calcium	0.374	Spike	P	0 - 20
2416983	Iron	0.373	Spike	P	0 - 20
2416983	Magnesium	0.493	Spike	P	0 - 20
2416983	Potassium	0.422	Spike	P	0 - 20
2416983	Sodium	0.613	Spike	P	0 - 20
2416983	Strontium	0.720	Spike	P	0 - 20
2416983	Tin	1.56	Spike	P	0 - 20
2416983	Titanium	1.03	Spike	P	0 - 20
2416983	Vanadium	1.09	Spike	P	0 - 20
2416983	Zinc	0.384	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P431295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416983	Aluminum	2.05	Spike	P	0 - 20
2416983	Antimony	2.51	Spike	P	0 - 20
2416983	Arsenic	2.19	Spike	P	0 - 20
2416983	Barium	2.19	Spike	P	0 - 20
2416983	Beryllium	0.844	Spike	P	0 - 20
2416983	Boron	0.533	Spike	P	0 - 20
2416983	Cadmium	1.97	Spike	P	0 - 20
2416983	Chromium	2.36	Spike	P	0 - 20
2416983	Cobalt	2.33	Spike	P	0 - 20
2416983	Copper	2.51	Spike	P	0 - 20
2416983	Lead	2.04	Spike	P	0 - 20
2416983	Manganese	3.63	Spike	P	0 - 20
2416983	Molybdenum	2.12	Spike	P	0 - 20
2416983	Nickel	3.03	Spike	P	0 - 20
2416983	Selenium	2.84	Spike	P	0 - 20
2416983	Silver	1.64	Spike	P	0 - 20
2416983	Thallium	2.91	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417011	Chloride	1.95	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417011	Sulfate	1.43	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417042	Ammonia-N	2.40	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417221	Kjeldahl Nitrogen	2.58	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417089	NO2NO3-N	0.641	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417107	Total-P	0.290	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417108	O-Phosphate-P	0.604	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P431169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416029	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	5.32	Spike	P	0 - 37
2416029	Acetochlor	6.00	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P431169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416029	Alachlor	4.66	Spike	P	0 - 30
2416029	Ametryn	14.7	Spike	P	0 - 32
2416029	Atrazine	9.00	Spike	P	0 - 41
2416029	Atrazine Desethyl	13.3	Spike	P	0 - 36
2416029	Avobenzone	12.2	Spike	P	0 - 36
2416029	Azinphos Methyl	8.26	Spike	P	0 - 75
2416029	Azoxystrobin	4.57	Spike	P	0 - 39
2416029	Bromacil	10.6	Spike	P	0 - 33
2416029	Butylate	13.3	Spike	P	0 - 44
2416029	Caffeine	8.72	Spike	P	0 - 74
2416029	Carbophenothion	5.00	Spike	P	0 - 25
2416029	Carfentrazone Ethyl	6.07	Spike	P	0 - 27
2416029	Chlorfenapyr	0.508	Spike	P	0 - 24
2416029	Chlorpyrifos Ethyl	15.5	Spike	P	0 - 26
2416029	Chlorpyrifos Methyl	3.66	Spike	P	0 - 26
2416029	Coumaphos	19.6	Spike	P	0 - 28
2416029	Cyanazine	13.7	Spike	P	0 - 48
2416029	Cyprodinil	13.7	Spike	P	0 - 29
2416029	Dechlorane 602	8.70	Spike	P	0 - 30
2416029	Dechlorane 603	1.01	Spike	P	0 - 30
2416029	Dechlorane Plus	0.701	Spike	P	0 - 30
2416029	Demeton	3.06	Spike	P	0 - 33
2416029	Diazinon	1.39	Spike	P	0 - 29
2416029	Difenoconazole	15.9	Spike	P	0 - 34
2416029	Dimethenamid	6.46	Spike	P	0 - 39
2416029	Dimethomorph	18.5	Spike	P	0 - 51
2416029	Disulfoton	3.61	Spike	P	0 - 30
2416029	Dithiopyr	2.16	Spike	P	0 - 26
2416029	EPTC	19.2	Spike	P	0 - 43
2416029	Ethion	14.9	Spike	P	0 - 79
2416029	Ethoprop	4.12	Spike	P	0 - 29
2416029	Etridiazole	8.93	Spike	P	0 - 33
2416029	Fenamiphos	3.34	Spike	P	0 - 40
2416029	Fenbuconazole	4.86	Spike	P	0 - 74
2416029	Fipronil	0.913	Spike	P	0 - 29
2416029	Fipronil Desulfinyl	2.84	Spike	P	0 - 32
2416029	Fipronil Sulfide	4.06	Spike	P	0 - 30
2416029	Fipronil Sulfone	18.9	Spike	P	0 - 33
2416029	Fluazifop-P-butyl	0.0938	Spike	P	0 - 38
2416029	Fludioxonil	1.47	Spike	P	0 - 29
2416029	Flumioxazin	11.2	Spike	P	0 - 51
2416029	Flutolanil	2.84	Spike	P	0 - 25
2416029	Fluxapyroxad	13.7	Spike	P	0 - 45
2416029	Fonofos	8.08	Spike	P	0 - 27
2416029	Hexabromobenzene	6.45	Spike	P	0 - 30
2416029	Hexazinone	7.28	Spike	P	0 - 30
2416029	Imazalil	46.5	Spike	P	0 - 100
2416029	Iprodione	9.74	Spike	P	0 - 33
2416029	Loratadine	6.92	Spike	P	0 - 56
2416029	Malathion	1.11	Spike	P	0 - 37
2416029	Metalaxyl	1.80	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P431169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416029	Metolachlor	2.40	Spike	P	0 - 29
2416029	Metribuzin	2.75	Spike	P	0 - 45
2416029	Mevinphos	6.04	Spike	P	0 - 29
2416029	Molinate	7.53	Spike	P	0 - 33
2416029	Myclobutanil	1.72	Spike	P	0 - 26
2416029	Naled	7.06	Spike	P	0 - 37
2416029	Napropamide	10.2	Spike	P	0 - 44
2416029	Norflurazon	2.92	Spike	P	0 - 30
2416029	Octinoxate	24.3	Spike	P	0 - 45
2416029	Oxadiazon	4.45	Spike	P	0 - 28
2416029	Oxybenzone	5.41	Spike	P	0 - 46
2416029	Oxyfluorfen	5.39	Spike	P	0 - 28
2416029	Parathion Ethyl	7.43	Spike	P	0 - 31
2416029	Parathion Methyl	1.12	Spike	P	0 - 29
2416029	PBB-153	1.21	Spike	P	0 - 30
2416029	PBDE-47	3.11	Spike	P	0 - 36
2416029	PBDE-99	3.82	Spike	P	0 - 40
2416029	Pendimethalin	13.4	Spike	P	0 - 33
2416029	Pentabromotoluene	10.2	Spike	P	0 - 30
2416029	Phenytoin	14.1	Spike	P	0 - 100
2416029	Phorate	19.0	Spike	P	0 - 36
2416029	Prodiamine	6.54	Spike	P	0 - 71
2416029	Prometon	0.791	Spike	P	0 - 36
2416029	Prometryn	12.7	Spike	P	0 - 28
2416029	Pronamide	8.00	Spike	P	0 - 24
2416029	Propanil	1.18	Spike	P	0 - 28
2416029	Propargite	22.7	Spike	P	0 - 43
2416029	Propiconazole	5.94	Spike	P	0 - 33
2416029	Pyraflufen Ethyl	12.0	Spike	P	0 - 29
2416029	Pyridaben	14.4	Spike	P	0 - 30
2416029	Pyriproxyfen	4.97	Spike	P	0 - 79
2416029	Simazine	11.5	Spike	P	0 - 29
2416029	Stirophos	5.57	Spike	P	0 - 61
2416029	Sulfentrazone	10.6	Spike	P	0 - 33
2416029	Tebuconazole	16.0	Spike	P	0 - 69
2416029	Terbufos	8.27	Spike	P	0 - 29
2416029	Terbuthylazine	0.0232	Spike	P	0 - 32
2416029	Tetradecachloro-m-terphenyl	6.41	Spike	P	0 - 30
2416029	Thiobencarb	6.28	Spike	P	0 - 26
2416029	Tri-o-cresyl Phosphate	10.0	Spike	P	0 - 33
2416029	Triadimefon	4.66	Spike	P	0 - 28
2416029	Tris(1-chloro-2-propyl) phosphate (TCPP)	24.5	Spike	P	0 - 30
2416029	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	8.99	Spike	P	0 - 30
2416029	Tris(2-chloroethyl) phosphate (TCEP)	9.89	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P431182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416648	Acesulfame K	2.24	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P431182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416648	AMPA	2.93	Spike	P	0 - 30
2416648	Endothall	4.96	Spike	P	0 - 30
2416648	Glufosinate	6.39	Spike	P	0 - 30
2416648	Glyphosate	7.15	Spike	P	0 - 30
2416648	Sucralose	23.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P431246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416425	2,4-D	4.45	Spike	P	0 - 30
2416425	2,4,5-T	0.0362	Spike	P	0 - 30
2416425	Acetaminophen	5.70	Spike	P	0 - 30
2416425	Acetamiprid	0.611	Spike	P	0 - 30
2416425	Afidopyropen	28.4	Spike	P	0 - 30
2416425	Bentazon	0.895	Spike	P	0 - 30
2416425	Benzovindiflupyr	8.04	Spike	P	0 - 30
2416425	Carbamazepine	22.1	Spike	P	0 - 30
2416425	Clothianidin	3.47	Spike	P	0 - 30
2416425	Dinotefuran	3.86	Spike	P	0 - 30
2416425	Diuron	8.76	Spike	P	0 - 30
2416425	Fenuron	6.08	Spike	P	0 - 30
2416425	Fluridone	0.567	Spike	P	0 - 30
2416425	Hydrocodone	0.955	Spike	P	0 - 30
2416425	Ibuprofen	25.7	Spike	P	0 - 30
2416425	Imazapyr	4.36	Spike	P	0 - 30
2416425	Imidacloprid	0.820	Spike	P	0 - 30
2416425	Linuron	4.94	Spike	P	0 - 30
2416425	Mandestrobin	5.88	Spike	P	0 - 30
2416425	MCPP	1.47	Spike	P	0 - 30
2416425	Naproxen	6.48	Spike	P	0 - 30
2416425	Primidone	7.13	Spike	P	0 - 30
2416425	Pyraclostrobin	21.5	Spike	P	0 - 30
2416425	Silvex	2.30	Spike	P	0 - 30
2416425	Thiamethoxam	19.3	Spike	P	0 - 30
2416425	Tolfenpyrad	7.18	Spike	P	0 - 30
2416425	Triclopyr	6.02	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P431493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416966	Total Alkalinity	0.286	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P431655

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: P431655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417325	TDS	0.587	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P431495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416966	Fluoride	0.993	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P431477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2417019	Organic Carbon	0.660	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2417110
Field Sample ID: G3NW0222

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.9	P	30 - 160
EPA 8321B	Diuron-d6	52.7	P	30 - 160
EPA 8321B	Endothall-d6	95.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	66.0	P	30 - 160
EPA 8321B	Primidone-d5	80.4	P	30 - 160
EPA 8321B	Sucralose-d6	70.7	P	30 - 160

Lab Sample ID: 2417112
Field Sample ID: G3NW0222

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	59.1	P	20 - 200
EPA 8270E	Simazine-d10	69.8	P	62 - 142
EPA 8270E	Terbufos-d10	85.7	P	58 - 132
EPA 8270E	Terphenyl-d14	87.8	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119778

Included Lab Sample IDs: 2417106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	98.3	P/P	90 - 110
Sulfate	98.7	98.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119795

Included Lab Sample IDs: 2417108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.9	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A119798

Included Lab Sample IDs: 2417106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.8	97.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119806

Included Lab Sample IDs: 2417106

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

Reference Method: EPA 8321B

Run ID: A119858

Included Lab Sample IDs: 2417110

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	126	121	P/P	60 - 160
Sucralose	93.2	72.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A119859

Included Lab Sample IDs: 2417110

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.6	102	P/P	60 - 160
Endothall	91.9	95.4	P/P	60 - 160
Glufosinate	85.6	90.0	P/P	60 - 160
Glyphosate	80.9	89.7	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119874

Included Lab Sample IDs: 2417111

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	103	P/P	90 - 110
Antimony	102	104	P/P	90 - 110
Arsenic	103	102	P/P	90 - 110
Barium	102	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119874

Included Lab Sample IDs: 2417111

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	96.7	96.9	P/P	90 - 110
Boron	103	101	P/P	90 - 110
Cadmium	102	104	P/P	90 - 110
Chromium	99.4	99.6	P/P	90 - 110
Cobalt	102	102	P/P	90 - 110
Copper	101	98.9	P/P	90 - 110
Lead	97.3	97.9	P/P	90 - 110
Manganese	99.4	101	P/P	90 - 110
Molybdenum	101	102	P/P	90 - 110
Nickel	101	99.5	P/P	90 - 110
Selenium	101	102	P/P	90 - 110
Silver	106	106	P/P	90 - 110
Thallium	104	104	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119885

Included Lab Sample IDs: 2417112

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.2		P	80 - 120
Avobenzone	98.1		P	80 - 120
Dechlorane 602	98.7		P	80 - 120
Dechlorane 603	96.4		P	80 - 120
Dechlorane Plus	92.5		P	80 - 120
Hexabromobenzene	97.1		P	80 - 120
Octinoxate	94.9		P	80 - 120
Oxybenzone	93.4		P	80 - 120
PBB-153	96.2		P	80 - 120
PBDE-47	96.4		P	80 - 120
PBDE-99	96.0		P	80 - 120
Pentabromotoluene	98.4		P	80 - 120
Tetradecachloro-m-terphenyl	93.3		P	80 - 120
Tri-o-cresyl Phosphate	97.5		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	91.3		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	94.1		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	91.6		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119894

Included Lab Sample IDs: 2417107

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

Reference Method: SM 5310 B-2011

Run ID: A119897

Included Lab Sample IDs: 2417107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A119900
Included Lab Sample IDs: 2417110

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.7	103	P/P	50 - 150
2,4,5-T	85.7	104	P/P	50 - 150
Acetaminophen	76.8	69.3	P/P	60 - 160
Acetamiprid	98.3	93.7	P/P	50 - 150
Afidopyropen	96.1	102	P/P	50 - 150
Bentazon	132	125	P/P	50 - 160
Benzovindiflupyr	99.9	96.7	P/P	50 - 150
Carbamazepine	96.5	103	P/P	60 - 150
Clothianidin	144	106	P/P	60 - 150
Dinotefuran	107	102	P/P	50 - 150
Diuron	135	96.2	P/P	60 - 160
Fenuron	102	96.0	P/P	60 - 150
Fluridone	102	109	P/P	60 - 160
Hydrocodone	117	108	P/P	60 - 150
Ibuprofen	134	138	P/P	50 - 160
Imazapyr	94.6	107	P/P	50 - 150
Imidacloprid	92.5	97.6	P/P	60 - 150
Linuron	83.2	104	P/P	60 - 150
Mandestrobin	98.5	108	P/P	50 - 150
MCPP	93.2	104	P/P	50 - 150
Naproxen	69.4	85.7	P/P	50 - 160
Primidone	92.9	88.2	P/P	60 - 150
Pyraclostrobin	119	108	P/P	60 - 150
Silvex	93.3	101	P/P	50 - 150
Thiamethoxam	110	143	P/P	50 - 150
Tolfenpyrad	97.8	105	P/P	60 - 150
Triclopyr	101	112	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A119904
Included Lab Sample IDs: 2417107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.5	97.8	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A119906
Included Lab Sample IDs: 2417106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.3	95.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A119906
Included Lab Sample IDs: 2417106

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119934
Included Lab Sample IDs: 2417112

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	90.2		P	80 - 120
Alachlor	86.5		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	89.3		P	80 - 120
Atrazine Desethyl	81.7		P	80 - 120
Azinphos Methyl	96.3		P	80 - 120
Azoxystrobin	97.6		P	80 - 120
Bromacil	99.5		P	80 - 120
Butylate	99.9		P	80 - 120
Caffeine	114		P	80 - 120
Carbophenothion	93.4		P	80 - 120
Carfentrazone Ethyl	92.8		P	80 - 120
Chlorfenapyr	82.3		P	80 - 120
Chlorpyrifos Ethyl	87.9		P	80 - 120
Chlorpyrifos Methyl	104		P	80 - 120
Coumaphos	101		P	80 - 120
Cyanazine	82.6		P	80 - 120
Cyprodinil	97.6		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	98.0		P	80 - 120
Dimethenamid	107		P	80 - 120
Dimethomorph	93.5		P	80 - 120
Disulfoton	98.7		P	80 - 120
Dithiopyr	99.6		P	80 - 120
EPTC	99.4		P	80 - 120
Ethion	84.2		P	80 - 120
Ethoprop	105		P	80 - 120
Etridiazole	97.6		P	80 - 120
Fenamiphos	87.5		P	80 - 120
Fenbuconazole	88.6		P	80 - 120
Fipronil	91.3		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	93.7		P	80 - 120
Fludioxonil	105		P	80 - 120
Flumioxazin	97.7		P	80 - 120
Flutolanil	101		P	80 - 120
Fluxapyroxad	99.4		P	80 - 120
Fonofos	97.4		P	80 - 120
Hexazinone	98.3		P	80 - 120
Imazalil	95.2		P	80 - 120
Iprodione	91.6		P	80 - 120
Loratadine	85.6		P	80 - 120
Malathion	89.2		P	80 - 120
Metalaxyl	95.2		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	89.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119934
Included Lab Sample IDs: 2417112

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	87.9		P	80 - 120
Naled	94.0		P	80 - 120
Napropamide	97.0		P	80 - 120
Norflurazon	92.0		P	80 - 120
Oxadiazon	97.2		P	80 - 120
Oxyfluorfen	94.0		P	80 - 120
Parathion Ethyl	96.9		P	80 - 120
Parathion Methyl	90.7		P	80 - 120
Pendimethalin	101		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	99.4		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	101		P	80 - 120
Propargite	90.1		P	80 - 120
Propiconazole	85.3		P	80 - 120
Pyraflufen Ethyl	102		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	96.1		P	80 - 120
Simazine	92.0		P	80 - 120
Stirophos	86.5		P	80 - 120
Sulfentrazone	97.3		P	80 - 120
Tebuconazole	97.3		P	80 - 120
Terbufos	98.5		P	80 - 120
Terbuthylazine	84.0		P	80 - 120
Thiobencarb	104		P	80 - 120
Triadimefon	98.5		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A119987
Included Lab Sample IDs: 2417111

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	103	P/P	90 - 110
Iron	105	105	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Potassium	106	106	P/P	90 - 110
Sodium	104	101	P/P	90 - 110
Strontium	98.9	102	P/P	90 - 110
Tin	97.8	101	P/P	90 - 110
Titanium	96.1	96.3	P/P	90 - 110
Vanadium	96.1	97.4	P/P	90 - 110
Zinc	90.7	92.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A119992
Included Lab Sample IDs: 2417107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report

Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119992

Included Lab Sample IDs: 2417107

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120029

Included Lab Sample IDs: 2417107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.8	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	97.7				3.63	
EPA 180.1 Rev. 2.0	Turbidity	102				1.56	
EPA 200.7 Rev. 4.4	Calcium	98.0		91.9	98.0		0.374
	Iron	101		99.2	98.9	103	0.373
	Magnesium	100		97.9	97.2	101	0.493
	Potassium	99.3		98.7	99.2	101	0.422
	Sodium	96.0		97.2	98.1	97.8	0.613
	Strontium	99.2		98.5	99.3	103	0.720
	Tin	102		101	99.0	104	1.56
	Titanium	100		98.1	99.1	103	1.03
	Vanadium	98.7		94.2	95.2	99.0	1.09
	Zinc	99.0		88.1	87.8	94.7	0.384
EPA 200.8 Rev. 5.4	Aluminum	102		100	103	102	2.05
	Antimony	103		106	108	107	2.51
	Arsenic	103		103	105	104	2.19
	Barium	105		106	109	106	2.19
	Beryllium	98.8		94.7	95.5	96.5	0.844
	Boron	105		106	106	103	0.533
	Cadmium	103		105	107	104	1.97
	Chromium	97.3		94.9	97.4	95.8	2.36
	Cobalt	103		100	103	100	2.33
	Copper	102		97.2	99.6	99.2	2.51
	Lead	98.4		98.2	100	98.1	2.04
	Manganese	97.7		95.7	99.3	97.4	3.63
	Molybdenum	102		104	107	104	2.12
	Nickel	102		98.5	102	100	3.03
	Selenium	103		103	106	104	2.84
	Silver	108		108	110	107	1.64
	Thallium	101		104	107	104	2.91
EPA 300.0 Rev. 2.1	Chloride	101		103	103		1.95
	Sulfate	101		101	100		1.43
EPA 350.1 Rev. 2.0	Ammonia-N	97.4		96.0	98.6		2.40
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106		104	107		2.58
EPA 353.2 Rev. 2.0	NO2NO3-N	104		102	102		0.641
EPA 365.1 Rev. 2.0	Total-P	100		100	101		0.290
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3		99.7	99.1		0.604
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	128		114	120		5.32
	Acetochlor	79.5		79.4	85.0		6.00
	Alachlor	75.7		80.5	76.8		4.66
	Ametryn	111		113	131		14.7
	Atrazine	93.1					9.00
	Atrazine Desethyl	76.6		95.1	109		13.3
	Avobenzone	130		139	123		12.2
	Azinphos Methyl	112		107	116		8.26
	Azoxystrobin	98.2		133	139		4.57
	Bromacil	112		104	91.9		10.6
	Butylate	67.2		61.7	54.0		13.3
	Caffeine	86.8		111	99.0		8.72
	Carbophenothion	109		106	111		5.00
	Carfentrazone Ethyl	113		110	117		6.07
	Chlorfenapyr	78.7		87.2	87.7		0.508
	Chlorpyrifos Ethyl	87.8		113	96.5		15.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	100	104	108		3.66
	Coumaphos	133	111	136		19.6
	Cyanazine	137	170	148		13.7
	Cyprodinil	94.2	101	88.2		13.7
	Dechlorane 602	109	78.6	85.7		8.70
	Dechlorane 603	140	136	135		1.01
	Dechlorane Plus	113	93.6	93.0		0.701
	Demeton	75.6	86.1	83.5		3.06
	Diazinon	114	112	114		1.39
	Difenoconazole	105	87.4	103		15.9
	Dimethenamid	90.6	90.8	97.7		6.46
	Dimethomorph	93.9	193	161		18.5
	Disulfoton	101	110	106		3.61
	Dithiopyr	105	110	113		2.16
	EPTC	61.2	58.3	48.1		19.2
	Ethion	100	112	96.7		14.9
	Ethoprop	96.0	103	98.8		4.12
	Etridiazole	73.9	67.8	62.0		8.93
	Fenamiphos	80.0	92.3	89.3		3.34
	Fenbuconazole	73.1	76.8	80.6		4.86
	Fipronil	80.9	79.4	80.3		0.913
	Fipronil Desulfinyl	99.5	94.3	97.4		2.84
	Fipronil Sulfide	86.8	91.7	87.8		4.06
	Fipronil Sulfone	83.5	69.7	85.7		18.9
	Fluazifop-P-butyl	68.8	71.7	71.6		0.0938
	Fludioxonil	79.3	90.1	91.5		1.47
	Flumioxazin	160	127	142		11.2
	Flutolanil	83.9	81.3	83.6		2.84
	Fluxapyroxad	91.1	79.8	93.4		13.7
	Fonofos	87.4	96.7	89.2		8.08
	Hexabromobenzene	134	138	129		6.45
	Hexazinone	98.6	103	111		7.28
	Imazalil	64.7	49.1	78.8		46.5
	Iprodione	88.2	89.9	99.1		9.74
	Loratadine	146	141	151		6.92
	Malathion	103	99.7	101		1.11
	Metalaxyl	102	93.3	95.3		1.80
	Metolachlor	89.1	109	113		2.40
	Metribuzin	99.6	107	110		2.75
	Mevinphos	84.3	96.4	90.7		6.04
	Molinate	65.2	64.1	59.4		7.53
	Myclobutanil	107	110	108		1.72
	Naled	37.1	35.9	38.5		7.06
	Napropamide	77.5	70.3	77.9		10.2
	Norflurazon	98.6	95.5	98.3		2.92
	Octinoxate	171	142	104		24.3
	Oxadiazon	86.3	92.1	96.3		4.45
	Oxybenzone	115	128	121		5.41
	Oxyfluorfen	110	121	114		5.39
	Parathion Ethyl	92.7	109	101		7.43
	Parathion Methyl	96.7	110	111		1.12
	PBB-153	143	149	147		1.21
	PBDE-47	119	97.1	100		3.11
	PBDE-99	117	92.4	96.0		3.82

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pendimethalin	151	172	150		13.4
	Pentabromotoluene	115	123	111		10.2
	Phenytoin	147	109	94.9		14.1
	Phorate	107	137	113		19.0
	Prodiamine	78.8	75.3	70.6		6.54
	Prometon	104	95.3	96.1		0.791
	Prometryn	97.2	95.8	109		12.7
	Pronamide	117	118	109		8.00
	Propanil	113	114	116		1.18
	Propargite	95.3	65.4	82.2		22.7
	Propiconazole	78.0	81.9	86.9		5.94
	Pyraflufen Ethyl	61.0	69.9	62.0		12.0
	Pyridaben	85.1	91.9	106		14.4
	Pyriproxyfen	80.1	89.9	94.5		4.97
	Simazine	93.2	111	99.0		11.5
	Stiropfos	96.3	76.2	72.1		5.57
	Sulfentrazone	54.8	89.4	101		10.6
	Tebuconazole	87.2	65.0	76.3		16.0
	Terbufos	107	115	106		8.27
	Terbuthylazine	88.3	91.1	91.1		0.0232
	Tetradecachloro-m-terphenyl	180	180	169		6.41
	Thiobencarb	114	108	101		6.28
	Tri-o-cresyl Phosphate	122	134	121		10.0
	Triadimefon	101	117	111		4.66
	Tris(1-chloro-2-propyl) phosphate (TCPP)	99.6	115	90.0		24.5
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	119	125	114		8.99
	Tris(2-chloroethyl) phosphate (TCEP)	116	126	114		9.89
EPA 8321B	2,4-D	88.8	92.9	97.8		4.45
	2,4,5-T	86.2	98.6	98.5		0.0362
	Acesulfame K	93.0	104	107		2.24
	Acetaminophen	55.2	58.9	62.4		5.70
	Acetamiprid	77.9	63.8	64.1		0.611
	Afidopyropen	70.3	49.2	65.5		28.4
	AMPA	106	72.8	70.7		2.93
	Bentazon	106				0.895
	Benzovindiflupyr	77.6	79.6	86.2		8.04
	Carbamazepine	71.7	57.5	71.7		22.1
	Clothianidin	82.1	95.8	99.1		3.47
	Dinotefuran	84.2	74.4	77.3		3.86
	Diuron	74.8	73.1	67.0		8.76
	Endothall	102	101	106		4.96
	Fenuron	73.5	59.4	63.2		6.08
	Fluridone	83.7	72.6	72.1		0.567
	Glufosinate	92.7	79.5	84.7		6.39
	Glyphosate	87.1	65.9	70.8		7.15
	Hydrocodone	81.9	71.5	72.2		0.955
	Ibuprofen	66.4	67.4	87.4		25.7
	Imazapyr	81.1	90.5	96.0		4.36
	Imidacloprid	76.8	125	126		0.820
	Linuron	49.8	69.2	65.9		4.94
	Mandestrobin	77.3	81.7	86.6		5.88

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8321B	MCP	90.9	103	102			1.47
	Naproxen	48.8	116	109			6.48
	Primidone	74.7	71.2	66.3			7.13
	Pyraclostrobin	65.5	76.2	94.5			21.5
	Silvex	99.6	81.5	83.4			2.30
	Sucralose	82.6	87.9	68.4			23.3
	Thiamethoxam	78.6	115	94.5			19.3
	Tolfenpyrad	50.9	55.7	59.8			7.18
	Triclopyr	85.3	107	101			6.02
SM 2320 B-2011	Total Alkalinity	96.6				0.286	
SM 2540 C-2015	TDS	94.2				0.587	
SM 2540 D-2015	TSS	88.8					
SM 4500-F- C-2011	Fluoride	99.4	99.6	101			0.993
SM 5310 B-2011	Organic Carbon	95.0	93.3	94.0			0.660

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2417106
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2417106
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2417111
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2417111
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2417106
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2417106
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2417107
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2417107
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2417107
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2417107
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2417108
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2417112
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2417112
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2417110
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2417106
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2417111
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2417106
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2417106
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2417106
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2417107

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	06/14/2023			06/14/2023 11:16	Anna M. Plaviak	2417106
EPA 180.1 Rev. 2.0	06/14/2023			06/14/2023 10:43	Alexis Price	2417106
EPA 200.7 Rev. 4.4	06/14/2023	06/15/2023 11:30	George D Taylor	06/22/2023 21:34	McKinley C Carter	2417111
EPA 200.8 Rev. 5.4	06/14/2023	06/15/2023 11:30	George D Taylor	06/16/2023 16:30	Emily M Philpot	2417111
EPA 300.0 Rev. 2.1	06/14/2023			06/16/2023 06:36	James L Waggeberby	2417106
EPA 350.1 Rev. 2.0	06/14/2023			06/16/2023 12:13	Khloe J Berg	2417107
EPA 351.2 Rev. 2.0	06/14/2023	06/22/2023 12:16	Dana G. Hughes	06/23/2023 09:03	Ping Hua	2417107
EPA 353.2 Rev. 2.0	06/14/2023			06/20/2023 08:16	Beverly Y. Sanders	2417107
EPA 365.1 Rev. 2.0	06/14/2023	06/23/2023 15:29	Adam P Silver	06/26/2023 12:09	Simonne.V. Calhoun	2417107
EPA 365.1 Rev. 2.0 dissolved	06/14/2023			06/14/2023 11:43	Adam P Silver	2417108
EPA 8270E	06/14/2023	06/14/2023 11:00	Rasheda Ghaffari	06/16/2023 18:45	Vandana T. Nagar	2417112
	06/14/2023	06/14/2023 11:00	Rasheda Ghaffari	06/16/2023 20:33	Arthur Maknenko	2417112
EPA 8321B	06/14/2023	06/14/2023 13:00	Touraj Touran	06/14/2023 16:12	Touraj Touran	2417110
	06/14/2023	06/14/2023 13:00	Touraj Touran	06/15/2023 10:15	Touraj Touran	2417110
	06/14/2023	06/15/2023 09:00	Hoor Shaik	06/20/2023 09:50	Juyoung Kim	2417110
SM 2320 B-2011	06/14/2023			06/20/2023 06:48	Dale L. Simmons	2417106
SM 2340 B-2011	06/14/2023			06/22/2023 21:34	McKinley C Carter	2417111
SM 2540 C-2015	06/14/2023			06/15/2023 16:20	Dana G. Hughes	2417106
SM 2540 D-2015	06/14/2023			06/15/2023 16:20	Dana G. Hughes	2417106
SM 4500-F- C-2011	06/14/2023			06/20/2023 06:48	Dale L. Simmons	2417106
SM 5310 B-2011	06/14/2023			06/19/2023 22:06	Elise M. Gillis	2417107