

Chemical Analysis Report

NW-DIST-2022-09-16-02

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

Event Description: **Laurel Hill East**
Request ID: **RQ-2022-09-12-40**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 07-OCT-2022 10:32

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

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Pond Creek upstream of Steele Mill Creek Rd Collection Date/Time: 09/15/2022 10:55

Field ID: G4NW0062

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357338	EPA 200.7 Rev. 4.4	Calcium	3.93		mg/L	P419802	
		Iron	1.27E+03		ug/L	P419802	
		Magnesium	1.54		mg/L	P419802	
		Potassium	0.95	I	mg/L	P419802	
		Sodium	2.6		mg/L	P419802	
		Strontium	16.2		ug/L	P419802	
		Tin	3.0	U	ug/L	P419802	
		Titanium	0.75	I	ug/L	P419802	
		Vanadium	2.0	U	ug/L	P419802	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P419802	
		Aluminum	55		ug/L	P419802	
		Antimony	0.050	U	ug/L	P419802	
		Arsenic	0.64		ug/L	P419802	
		Barium	26.6		ug/L	P419802	
		Beryllium	0.014	I	ug/L	P419802	
		Boron	13.6		ug/L	P419802	
		Cadmium	0.020	U	ug/L	P419802	
		Chromium	0.40	U	ug/L	P419802	
		Cobalt	0.139		ug/L	P419802	
		Copper	0.40	U	ug/L	P419802	
		Lead	0.20	U	ug/L	P419802	
		Manganese	48.7		ug/L	P419802	
		Molybdenum	0.15	U	ug/L	P419802	
		Nickel	0.50	U	ug/L	P419802	
		Selenium	0.20	U	ug/L	P419802	
		Silver	0.010	U	ug/L	P419802	
		Thallium	0.10	U	ug/L	P419802	
	SM 2340 B-2011	Hardness	16.2		mg/L	P419802	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Horsehead Creek upstream of Millside Rd

Collection Date/Time: 09/15/2022 11:12

Field ID: G4NW0515

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357339	EPA 200.7 Rev. 4.4	Calcium	3.18		mg/L	P419802	
		Iron	1.34E+03		ug/L	P419802	
		Magnesium	1.26		mg/L	P419802	
		Potassium	0.63	I	mg/L	P419802	
		Sodium	2.2		mg/L	P419802	
		Strontium	20.7		ug/L	P419802	
		Tin	3.0	U	ug/L	P419802	
		Titanium	0.86	I	ug/L	P419802	
		Vanadium	2.0	U	ug/L	P419802	
		Zinc	5.0	U	ug/L	P419802	
	EPA 200.8 Rev. 5.4	Aluminum	75		ug/L	P419802	
		Antimony	0.050	U	ug/L	P419802	
		Arsenic	0.57		ug/L	P419802	
		Barium	29.1		ug/L	P419802	
		Beryllium	0.019	I	ug/L	P419802	
		Boron	9.5		ug/L	P419802	
		Cadmium	0.020	U	ug/L	P419802	
		Chromium	0.40	U	ug/L	P419802	
		Cobalt	0.191		ug/L	P419802	
		Copper	0.40	U	ug/L	P419802	
		Lead	0.20	U	ug/L	P419802	
		Manganese	38.0		ug/L	P419802	
		Molybdenum	0.15	U	ug/L	P419802	
		Nickel	0.50	U	ug/L	P419802	
		Selenium	0.20	U	ug/L	P419802	
		Silver	0.010	U	ug/L	P419802	
		Thallium	0.10	U	ug/L	P419802	
	SM 2340 B-2011	Hardness	13.1		mg/L	P419802	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Pond Creek upstream of Bob Sikes Hwy

Collection Date/Time: 09/15/2022 11:55

Field ID: G4NW0522

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357340	EPA 200.7 Rev. 4.4	Calcium	6.67		mg/L	P419802	
		Iron	1.47E+03		ug/L	P419802	
		Magnesium	2.10		mg/L	P419802	
		Potassium	1.2	I	mg/L	P419802	
		Sodium	3.5		mg/L	P419802	
		Strontium	21.1		ug/L	P419802	
		Tin	3.0	U	ug/L	P419802	
		Titanium	1.1	I	ug/L	P419802	
		Vanadium	2.0	U	ug/L	P419802	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P419802	
		Aluminum	44		ug/L	P419802	
		Antimony	0.050	U	ug/L	P419802	
		Arsenic	0.95		ug/L	P419802	
		Barium	20.8		ug/L	P419802	
		Beryllium	0.010	U	ug/L	P419802	
		Boron	21.6		ug/L	P419802	
		Cadmium	0.020	U	ug/L	P419802	
		Chromium	0.40	U	ug/L	P419802	
		Cobalt	0.117		ug/L	P419802	
		Copper	1.35		ug/L	P419802	
		Lead	0.20	U	ug/L	P419802	
		Manganese	60.4		ug/L	P419802	
		Molybdenum	0.15	U	ug/L	P419802	
		Nickel	0.50	U	ug/L	P419802	
		Selenium	0.20	U	ug/L	P419802	
		Silver	0.010	U	ug/L	P419802	
		Thallium	0.10	U	ug/L	P419802	
	SM 2340 B-2011	Hardness	25.3		mg/L	P419802	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Horsehead Creek

Collection Date/Time: 09/15/2022 11:40

Field ID: G4NW0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357341	EPA 200.7 Rev. 4.4	Calcium	3.73		mg/L	P419802	
		Iron	1.73E+03		ug/L	P419802	
		Magnesium	1.05		mg/L	P419802	
		Potassium	0.71	I	mg/L	P419802	
		Sodium	2.5		mg/L	P419802	
		Strontium	13.5		ug/L	P419802	
		Tin	3.0	U	ug/L	P419802	
		Titanium	0.75	U	ug/L	P419802	
		Vanadium	2.0	U	ug/L	P419802	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P419802	
		Aluminum	61		ug/L	P419802	
		Antimony	0.050	U	ug/L	P419802	
		Arsenic	0.76		ug/L	P419802	
		Barium	17.8		ug/L	P419802	
		Beryllium	0.012	I	ug/L	P419802	
		Boron	9.3		ug/L	P419802	
		Cadmium	0.020	U	ug/L	P419802	
		Chromium	0.40	U	ug/L	P419802	
		Cobalt	0.162		ug/L	P419802	
		Copper	0.40	U	ug/L	P419802	
		Lead	0.20	U	ug/L	P419802	
		Manganese	35.2		ug/L	P419802	
		Molybdenum	0.15	U	ug/L	P419802	
		Nickel	0.50	U	ug/L	P419802	
		Selenium	0.20	U	ug/L	P419802	
		Silver	0.010	U	ug/L	P419802	
		Thallium	0.10	U	ug/L	P419802	
	SM 2340 B-2011	Hardness	13.6		mg/L	P419802	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

**Sample Location: East Branch Pine Log Creek above Bear Bay
 Flats Road**

Collection Date/Time: 09/15/2022 12:15

Field ID: G4NW0208

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357323	DEP SOP: NU-094-1	Color (true)	110		PCU	P419735	
	EPA 180.1 Rev. 2.0	Turbidity	1.8	A	NTU	P419747	
	EPA 300.0 Rev. 2.1	Chloride	5.3		mg Cl/L	P420090	
		Sulfate	0.44	I	mg SO4/L	P420095	
	SM 2320 B-2011	Total Alkalinity	7.1		mg CaCO3/L	P420276	
	SM 2540 C-2011	TDS	43		mg/L	P420189	
	SM 2540 D-2011	TSS	3	I	mg/L	P420146	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420215	
2357324	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P420246	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P419937	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P420319	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P419839	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P419944	

Ref. Method and Comment:

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

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357335	EPA 8321B	Ibuprofen	0.020	U	ug/L	P419841	
		Imidacloprid	0.0053	I	ug/L	P419841	
		Linuron	0.0040	U	ug/L	P419841	
		Mandestrobin	0.0020	U	ug/L	P419841	
		MCP	0.0020	U	ug/L	P419841	
		Naproxen	0.0080	U	ug/L	P419841	
		Primidone	0.0040	U	ug/L	P419841	
		Pyraclostrobin	0.0020	U	ug/L	P419841	
		Silvex	0.0040	U	ug/L	P419841	
		Thiamethoxam	0.0020	U	ug/L	P419841	
		Tolfenpyrad	0.0020	U	ug/L	P419841	
		Triclopyr	0.0040	U	ug/L	P419841	
2357336	EPA 8270E	Aldrin	0.67	U	ng/L	P419792	
		Alpha-BHC	0.10	U	ng/L	P419792	
		Alpha-Chlordane	0.21	U	ng/L	P419792	
		PCB-1016	2.1	U	ng/L	P419792	
		Beta-BHC	0.18	I	ng/L	P419792	
		PCB-1221	2.1	U	ng/L	P419792	
		Beta-Cyfluthrin	1.3	U	ng/L	P419792	
		PCB-1232	2.1	U	ng/L	P419792	
		Bifenthrin	0.52	U	ng/L	P419792	
		PCB-1242	2.1	U	ng/L	P419792	
		PCB-1248	2.1	U	ng/L	P419792	
		Chlorothalonil	1.3	U	ng/L	P419792	
		PCB-1254	2.1	U	ng/L	P419792	
		Cis-Nonachlor	0.21	U	ng/L	P419792	
		PCB-1260	2.1	U	ng/L	P419792	
		Cypermethrin	1.6	U	ng/L	P419792	RPD
		Dacthal	0.16	U	ng/L	P419792	
		DDD-p,p'	0.26	U	ng/L	P419792	RPD
		DDE-p,p'	0.21	U	ng/L	P419792	
		DDT-p,p'	0.26	U	ng/L	P419792	
		Delta-BHC	0.41	U	ng/L	P419792	
		Deltamethrin	1.3	U	ng/L	P419792	
		Dichlobenil	0.26	U	ng/L	P419792	
		Dicofol	1.3	U	ng/L	P419792	RPD
		Dieldrin	0.41	U	ng/L	P419792	
		Endosulfan I	0.41	U	ng/L	P419792	
		Endosulfan II	0.41	U	ng/L	P419792	
		Endosulfan Sulfate	0.31	U	ng/L	P419792	
		Endrin	0.41	U	ng/L	P419792	
		Endrin Aldehyde	0.78	U	ng/L	P419792	RPD
		Endrin Ketone	0.41	U	ng/L	P419792	
		Esfenvalerate	0.78	U	ng/L	P419792	
		Ethalfuralin	0.16	U	ng/L	P419792	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357336	EPA 8270E	Fenpropathrin	0.26	U	ng/L	P419792	
		Gamma-BHC	0.13	U	ng/L	P419792	
		Gamma-Chlordane	0.21	U	ng/L	P419792	
		Heptachlor	0.21	U	ng/L	P419792	
		Heptachlor Epoxide	0.26	U	ng/L	P419792	
		Hexachlorobenzene**	1.0	U	ng/L	P419792	
		Kepone	5.2	U	ng/L	P419792	
		Lambda-Cyhalothrin	0.78	U	ng/L	P419792	RPD
		Methoprene	0.78	U	ng/L	P419792	
		Methoxychlor	0.31	U	ng/L	P419792	
		MGK-264	0.21	U	ng/L	P419792	
		Mirex	0.36	U	ng/L	P419792	
		Oxychlordane	0.31	U	ng/L	P419792	
		Permethrin	1.7	U	ng/L	P419792	RPD
		Phenothrin	0.93	U	ng/L	P419792	
		Piperonyl Butoxide	0.16	U	ng/L	P419792	
		Prallethrin	2.1	U	ng/L	P419792	
		Tau-Fluvalinate	0.26	U	ng/L	P419792	
		Tetramethrin	0.78	U	ng/L	P419792	
		Trans-Nonachlor	0.21	U	ng/L	P419792	
		Triclosan Methyl	0.16	U	ng/L	P419792	
		Trifluralin	0.21	U	ng/L	P419792	
		Chlordane	2.6	U	ng/L	P419792	
		Toxaphene	16	U	ng/L	P419792	
2357337	EPA 8270E	Oxybenzone**	9.7	U	ng/L	P419712	
		Acetochlor	0.24	U	ng/L	P419712	
		Octinoxate**	19	U	ng/L	P419712	RPD
		Alachlor	0.24	U	ng/L	P419712	
		Avobenzone**	97	U	ng/L	P419712	
		Ametryn	0.58	U	ng/L	P419712	
		Atrazine	0.38	I	ng/L	P419712	
		PBDE-47**	3.9	U	ng/L	P419712	
		Atrazine Desethyl	1.5	U	ng/L	P419712	
		PBDE-99**	4.8	U	ng/L	P419712	MS
		Azinphos Methyl	1.9	U	ng/L	P419712	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P419712	RPD
		Azoxystrobin	0.48	U	ng/L	P419712	
		Bromacil	0.48	U	ng/L	P419712	
		2-Ethylhexyl	12	U	ng/L	P419712	MS
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.39	U	ng/L	P419712	
		Dechlorane Plus**	29	U	ng/L	P419712	
		Caffeine**	7.3	U	ng/L	P419712	
		Carbophenothion	0.19	U	ng/L	P419712	
		Carfentrazone Ethyl	0.097	U	ng/L	P419712	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357337	EPA 8270E	Chlorfenapyr	0.17	U	ng/L	P419712	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P419712	
		Chlorpyrifos Methyl	0.048	U	ng/L	P419712	
		Coumaphos	0.48	U	ng/L	P419712	MS
		Cyanazine	3.1	U	ng/L	P419712	
		Cyprodinil	0.097	U	ng/L	P419712	
		Demeton	1.5	U	ng/L	P419712	
		Diazinon	0.12	U	ng/L	P419712	
		Difenoconazole	0.58	U	ng/L	P419712	
		Dimethenamid	0.097	U	ng/L	P419712	
		Dimethomorph	0.17	U	ng/L	P419712	MS, RPD
		Disulfoton	0.48	U	ng/L	P419712	
		Dithiopyr	0.17	U	ng/L	P419712	
		EPTC	1.2	U	ng/L	P419712	
		Ethion	0.15	U	ng/L	P419712	
		Ethoprop	0.097	U	ng/L	P419712	
		Etridiazole	0.15	U	ng/L	P419712	
		Fenamiphos	0.48	U	ng/L	P419712	
		Fenbuconazole	0.12	U	ng/L	P419712	
		Fipronil	0.24	U	ng/L	P419712	
		Fipronil Desulfinyl**	0.15	I	ng/L	P419712	
		Fipronil Sulfide	0.15	U	ng/L	P419712	
		Fipronil Sulfone	0.23	I	ng/L	P419712	
		Fluazifop-P-butyl	0.097	U	ng/L	P419712	
		Fludioxonil	0.12	U	ng/L	P419712	
		Flumioxazin	19		ng/L	P419712	
		Flutolanil	1.5		ng/L	P419712	
		Fluxapyroxad	0.38	I	ng/L	P419712	
		Fonofos	0.19	U	ng/L	P419712	
		Hexazinone	0.48	U	ng/L	P419712	
		Imazalil	0.73	U	ng/L	P419712	
		Iprodione	0.58	U	ng/L	P419712	
		Loratadine**	0.097	U	ng/L	P419712	MS, RPD
		Malathion	0.34	U	ng/L	P419712	
		Metalaxyl	0.73	U	ng/L	P419712	
		Metolachlor	2.8		ng/L	P419712	
		Metribuzin	2.4	U	ng/L	P419712	
		Mevinphos	1.0	U	ng/L	P419712	
		Molinate	0.29	U	ng/L	P419712	
		Myclobutanil	0.24	U	ng/L	P419712	
		Naled	1.5	U	ng/L	P419712	
		Napropamide	0.39	U	ng/L	P419712	
		Norflurazon	0.48	U	ng/L	P419712	
		Oxadiazon	0.29	U	ng/L	P419712	
		Oxyfluorfen	0.15	U	ng/L	P419712	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2357337	EPA 8270E	Parathion Ethyl	0.24	U	ng/L	P419712	
		Parathion Methyl	0.53	U	ng/L	P419712	
		Pendimethalin	0.97	U	ng/L	P419712	
		Phenytoin**	3.4	U	ng/L	P419712	MS
		Phorate	0.51	U	ng/L	P419712	
		Prodiamine	0.17	U	ng/L	P419712	
		Prometon	0.87	U	ng/L	P419712	
		Prometryn	0.19	U	ng/L	P419712	
		Pronamide	0.15	U	ng/L	P419712	
		Propanil	0.12	U	ng/L	P419712	
		Propargite	1.5	UJ	ng/L	P419712	LCS, MS
		Propiconazole	0.48	U	ng/L	P419712	
		Pyraflufen Ethyl	0.24	U	ng/L	P419712	
		Pyridaben	0.44	U	ng/L	P419712	MS
		Pyriproxyfen	0.12	U	ng/L	P419712	
		Simazine	0.48	U	ng/L	P419712	
		Stirophos	0.12	U	ng/L	P419712	MS, RPD
		Sulfentrazone	0.48	U	ng/L	P419712	
		Tebuconazole	0.48	U	ng/L	P419712	
		Terbufos	0.097	U	ng/L	P419712	
		Terbuthylazine	0.41	U	ng/L	P419712	
		Thiobencarb	0.58	U	ng/L	P419712	
		Triadimefon	0.24	U	ng/L	P419712	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to a high concentration of parameters in the spiked sample.

EPA 8270E: 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: P419735

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419747

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419802

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: P419802

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: P420089

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: P420090

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420094

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420095

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420112

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420246

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419937

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420319

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419839

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419993

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419712

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419712

Component	Result	Code	Units
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.19	I	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P419712

Component	Result	Code	Units
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419712

Component	Result	Code	Units
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E

Batch ID: P419792

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419792

Component	Result	Code	Units
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419792

Component	Result	Code	Units
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P419792

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P419612

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P419676

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P419841

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	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: P420276

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P420189

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P420146

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P420215

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419944

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: P419735

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419747

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419802

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	102		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	106		P	85 - 115
Strontium	101		P	85 - 115
Tin	98.4		P	85 - 115
Titanium	99.9		P	85 - 115
Vanadium	99.4		P	85 - 115
Zinc	96.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419802

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	102		P	85 - 115
Barium	105		P	85 - 115
Beryllium	92.8		P	85 - 115
Boron	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	104		P	85 - 115
Copper	101		P	85 - 115
Lead	97.4		P	85 - 115
Manganese	104		P	85 - 115
Molybdenum	99.0		P	85 - 115
Nickel	102		P	85 - 115
Selenium	101		P	85 - 115
Silver	87.3		P	85 - 115
Thallium	96.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420089

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420090

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420094

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420095

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420112

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419937

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: P420319

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419839

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419993

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419712

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	80.3		P	50 - 150
Acetochlor	97.5		P	70 - 121
Alachlor	93.5		P	68 - 119
Ametryn	83.3		P	64 - 139
Atrazine	98.2		P	76 - 120
Atrazine Desethyl	59.7		P	44 - 126
Avobenzone	76.0		P	76 - 212
Azinphos Methyl	138		P	43 - 192
Azoxystrobin	136		P	36 - 224
Bromacil	68.4		P	52 - 121
Butylate	58.5		P	28 - 91.0
Caffeine	78.0		P	50 - 134
Carbophenothion	90.3		P	56 - 129
Carfentrazone Ethyl	95.2		P	60 - 141
Chlorfenapyr	81.1		P	56 - 115
Chlorpyrifos Ethyl	91.4		P	60 - 118
Chlorpyrifos Methyl	98.4		P	68 - 119
Coumaphos	82.3		P	18 - 250
Cyanazine	87.6		P	61 - 250
Cyprodinil	92.5		P	55 - 145
Dechlorane Plus	95.1		P	50 - 150
Demeton	92.2		P	30 - 159
Diazinon	98.1		P	70 - 123
Difenoconazole	88.1		P	49 - 204
Dimethenamid	67.6		P	64 - 115
Dimethomorph	182		P	12 - 219
Disulfoton	98.2		P	44 - 125
Dithiopyr	86.1		P	64 - 115
EPTC	52.8		P	28 - 86.0
Ethion	36.1		P	33 - 125
Ethoprop	90.5		P	64 - 116
Etridiazole	58.0		P	34 - 91.0
Fenamiphos	96.6		P	12 - 127
Fenbuconazole	86.6		P	59 - 151
Fipronil	89.1		P	67 - 129
Fipronil Desulfinyl	85.6		P	65 - 127
Fipronil Sulfide	67.9		P	61 - 116
Fipronil Sulfone	80.1		P	55 - 117
Fluazifop-P-butyl	86.3		P	62 - 127
Fludioxonil	82.8		P	62 - 128
Flumioxazin	106		P	33 - 250
Flutolanil	82.4		P	56 - 127
Fluxapyroxad	60.7		P	45 - 128
Fonofos	84.1		P	62 - 111
Hexazinone	87.4		P	46 - 139
Imazalil	89.9		P	38 - 142
Iprodione	90.5		P	47 - 135
Loratadine	180		P	10 - 244
Malathion	104		P	61 - 139
Metalaxyl	87.2		P	10 - 119
Metolachlor	93.3		P	65 - 118
Metribuzin	107		P	51 - 250

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419712

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mevinphos	70.8		P	53 - 121
Molinate	75.7		P	42 - 96.0
Myclobutanil	81.4		P	55 - 128
Naled	77.9		P	10 - 98.0
Napropamide	65.8		P	49 - 121
Norflurazon	74.3		P	61 - 126
Octinoxate	88.9		P	30 - 159
Oxadiazon	72.9		P	59 - 116
Oxybenzone	83.1		P	61 - 139
Oxyfluorfen	113		P	64 - 137
Parathion Ethyl	99.6		P	70 - 112
Parathion Methyl	115		P	76 - 133
PBDE-47	67.3		P	50 - 150
PBDE-99	76.0		P	50 - 150
Pendimethalin	83.7		P	52 - 117
Phenytoin	11.3		P	10 - 199
Phorate	77.3		P	48 - 121
Prodiamine	59.2		P	26 - 142
Prometon	68.0		P	43 - 123
Prometryn	84.5		P	66 - 127
Pronamide	101		P	75 - 121
Propanil	86.3		P	45 - 150
Propargite	41.1		F	42 - 208
Propiconazole	75.7		P	60 - 125
Pyraflufen Ethyl	75.2		P	70 - 138
Pyridaben	96.0		P	35 - 245
Pyriproxyfen	77.5		P	30 - 149
Simazine	89.2		P	72 - 125
Stirophos	43.1		P	29 - 164
Sulfentrazone	36.8		P	21 - 139
Tebuconazole	31.7		P	10 - 115
Terbufos	109		P	60 - 123
Terbuthylazine	94.4		P	72 - 115
Thiobencarb	91.7		P	31 - 139
Tri-o-cresyl Phosphate	82.3		P	50 - 150
Triadimefon	78.5		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P419792

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	46.7		P	10 - 92.0
Alpha-BHC	83.2		P	75 - 107
Alpha-Chlordane	67.3		P	50 - 108
Beta-BHC	112		P	36 - 138
Beta-Cyfluthrin	59.0		P	20 - 161
Bifenthrin	36.6		P	10 - 119
Chlorothalonil	65.0		P	26 - 186
Cis-Nonachlor	65.2		P	42 - 119
Cypermethrin	62.6		P	22 - 150
Dacthal	85.6		P	72 - 119
DDD-p,p'	82.9		P	45 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419792

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDE-p,p'	68.3		P	48 - 106
DDT-p,p'	65.5		P	48 - 110
Delta-BHC	115		P	54 - 140
Deltamethrin	57.1		P	22 - 189
Dichlobenil	89.0		P	36 - 117
Dicofol	81.0		P	46 - 155
Dieldrin	75.8		P	54 - 110
Endosulfan I	75.1		P	59 - 105
Endosulfan II	81.0		P	51 - 118
Endosulfan Sulfate	92.8		P	57 - 121
Endrin	70.2		P	10 - 120
Endrin Aldehyde	83.4		P	34 - 118
Endrin Ketone	94.3		P	69 - 177
Esfenvalerate	54.3		P	23 - 168
Ethalfuralin	70.7		P	49 - 99.0
Fenpropathrin	62.2		P	34 - 117
Gamma-BHC	85.7		P	72 - 117
Gamma-Chlordane	68.4		P	43 - 106
Heptachlor	59.8		P	41 - 98.0
Heptachlor Epoxide	73.2		P	57 - 106
Hexachlorobenzene	63.8		P	36 - 99.0
Kepone	187		P	16 - 215
Lambda-Cyhalothrin	46.3		P	21 - 177
Methoprene	41.1		P	10 - 119
Methoxychlor	76.6		P	60 - 112
MGK-264	83.0		P	26 - 122
Mirex	45.1		P	10 - 169
Oxychlordane	68.3		P	43 - 105
PCB-1016	85.5		P	48 - 112
PCB-1260	80.2		P	44 - 118
Permethrin	58.3		P	24 - 148
Phenothrin	39.5		P	10 - 106
Piperonyl Butoxide	89.9		P	10 - 139
Prallethrin	76.5		P	17 - 109
Tau-Fluvalinate	41.6		P	13 - 131
Tetramethrin	95.1		P	10 - 132
Trans-Nonachlor	67.9		P	44 - 106
Triclosan Methyl	75.8		P	59 - 109
Trifluralin	66.4		P	44 - 101

Reference Method: EPA 8276
Batch ID: P419792

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	78.3		P	61 - 116
Toxaphene	81.0		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P419612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	115		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P419612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	105		P	40 - 150
Endothall	98.0		P	40 - 150
Glufosinate	97.9		P	40 - 150
Glyphosate	113		P	40 - 150
Sucralose	110		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P419676

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	84.7		P	30 - 160
Aldicarb	73.5		P	30 - 150
Aldicarb Sulfone	89.0		P	30 - 160
Aldicarb Sulfoxide	91.8		P	30 - 160
Carbaryl	68.5		P	30 - 160
Carbofuran	78.1		P	30 - 160
Methiocarb	76.7		P	30 - 160
Methomyl	89.7		P	30 - 160
Oxamyl	90.9		P	30 - 160
Propoxur	75.3		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P419841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.6		P	30 - 160
2,4,5-T	65.9		P	30 - 160
Acetaminophen	99.5		P	30 - 150
Acetamiprid	86.2		P	30 - 160
Afidopyropen	71.1		P	30 - 160
Bentazon	90.7		P	30 - 150
Benzovindiflupyr	84.4		P	30 - 160
Carbamazepine	87.7		P	30 - 160
Clothianidin	98.6		P	30 - 160
Dinotefuran	105		P	30 - 160
Diuron	58.8		P	30 - 160
Fenuron	107		P	30 - 160
Fluridone	92.4		P	30 - 160
Hydrocodone	96.5		P	30 - 160
Ibuprofen	84.4		P	30 - 160
Imazapyr	91.7		P	30 - 160
Imidacloprid	93.3		P	30 - 160
Linuron	91.9		P	30 - 160
Mandestrobin	95.2		P	30 - 160
MCPP	78.9		P	30 - 160
Naproxen	81.2		P	30 - 160
Primidone	95.1		P	30 - 160
Pyraclostrobin	82.2		P	30 - 160
Silvex	61.4		P	30 - 160
Thiamethoxam	92.7		P	30 - 160
Tolfenpyrad	64.9		P	30 - 160
Triclopyr	64.4		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P420276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.7		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P420215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.9		P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419944

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: P419802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357289	Calcium	99.5	98.9	P/P	80 - 120
2357289	Iron	104	102	P/P	80 - 120
2357289	Magnesium	102	100	P/P	80 - 120
2357289	Potassium	101	101	P/P	80 - 120
2357289	Sodium	99.6	99.0	P/P	80 - 120
2357289	Strontium	105	104	P/P	80 - 120
2357289	Tin	101	101	P/P	80 - 120
2357289	Titanium	102	102	P/P	80 - 120
2357289	Vanadium	100	100	P/P	80 - 120
2357289	Zinc	96.5	96.1	P/P	80 - 120
2357338	Calcium	98.5		P	80 - 120
2357338	Iron	101		P	80 - 120
2357338	Magnesium	102		P	80 - 120
2357338	Potassium	101		P	80 - 120
2357338	Sodium	103		P	80 - 120
2357338	Strontium	103		P	80 - 120
2357338	Tin	98.4		P	80 - 120
2357338	Titanium	100		P	80 - 120
2357338	Vanadium	99.3		P	80 - 120
2357338	Zinc	95.6		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P419802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357289	Aluminum	98.5	98.1	P/P	80 - 120
2357289	Antimony	101	100	P/P	80 - 120
2357289	Arsenic	99.8	99.1	P/P	80 - 120
2357289	Barium	101	100	P/P	80 - 120
2357289	Beryllium	91.1	90.1	P/P	80 - 120
2357289	Boron	100	101	P/P	80 - 120
2357289	Cadmium	98.6	99.4	P/P	80 - 120
2357289	Chromium	99.9	100	P/P	80 - 120
2357289	Cobalt	101	101	P/P	80 - 120
2357289	Copper	98.9	99.4	P/P	80 - 120
2357289	Lead	96.1	95.6	P/P	80 - 120
2357289	Manganese	98.3	99.2	P/P	80 - 120
2357289	Molybdenum	96.2	96.1	P/P	80 - 120
2357289	Nickel	99.8	99.8	P/P	80 - 120
2357289	Selenium	98.3	95.9	P/P	80 - 120
2357289	Silver	83.2	83.7	P/P	80 - 120
2357289	Thallium	95.3	95.3	P/P	80 - 120
2357338	Aluminum	100		P	80 - 120
2357338	Antimony	99.8		P	80 - 120
2357338	Arsenic	100		P	80 - 120
2357338	Barium	101		P	80 - 120
2357338	Beryllium	89.9		P	80 - 120
2357338	Boron	104		P	80 - 120
2357338	Cadmium	99.3		P	80 - 120
2357338	Chromium	100		P	80 - 120
2357338	Cobalt	102		P	80 - 120
2357338	Copper	100		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357338	Lead	95.6		P	80 - 120
2357338	Molybdenum	96.7		P	80 - 120
2357338	Nickel	101		P	80 - 120
2357338	Selenium	98.0		P	80 - 120
2357338	Silver	84.2		P	80 - 120
2357338	Thallium	93.9		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357095	Chloride	101		P	90 - 110
2357194	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357378	Chloride	105		P	90 - 110
2357457	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357095	Sulfate	98.8		P	90 - 110
2357194	Sulfate	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357378	Sulfate	102		P	90 - 110
2357457	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420112

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357046	Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357384	Ammonia-N	99.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357285	Kjeldahl Nitrogen	97.5	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357235	NO2NO3-N	92.0	92.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419839

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357151	Total-P	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357099	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P419712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356916	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	43.8	58.5	F/P	50 - 150
2356916	Acetochlor	90.5	99.8	P/P	65 - 124
2356916	Alachlor	81.8	91.4	P/P	61 - 121
2356916	Ametryn	67.8	76.4	P/P	52 - 216
2356916	Atrazine	89.2	103	P/P	68 - 133
2356916	Atrazine Desethyl	56.3	69.1	P/P	15 - 160
2356916	Avobenzone	61.9	77.1	P/P	59 - 206
2356916	Azinphos Methyl	105	115	P/P	40 - 292
2356916	Azoxystrobin	98.5	139	P/P	12 - 242
2356916	Bromacil	79.1	94.0	P/P	54 - 167
2356916	Butylate	34.7	41.0	P/P	14 - 94.0
2356916	Caffeine	84.1	76.5	P/P	10 - 226
2356916	Carbophenothion	76.6	76.2	P/P	49 - 122
2356916	Carfentrazone Ethyl	81.4	76.9	P/P	53 - 138
2356916	Chlorfenapyr	64.0	64.6	P/P	50 - 150
2356916	Chlorpyrifos Ethyl	71.7	67.7	P/P	52 - 122
2356916	Chlorpyrifos Methyl	72.2	81.0	P/P	66 - 117
2356916	Coumaphos	39.0	32.8	F/F	50 - 220
2356916	Cyanazine	74.2	77.1	P/P	43 - 245
2356916	Cyprodinil	73.1	69.9	P/P	50 - 150
2356916	Dechlorane Plus	54.4	65.7	P/P	50 - 150
2356916	Demeton	89.4	106	P/P	43 - 188
2356916	Diazinon	90.4	102	P/P	69 - 131
2356916	Difenoconazole	100	87.6	P/P	34 - 231
2356916	Dimethenamid	71.2	69.5	P/P	55 - 118
2356916	Dimethomorph	109	189	P/F	50 - 150
2356916	Disulfoton	77.7	84.3	P/P	38 - 141
2356916	Dithiopyr	62.2	70.6	P/P	42 - 116
2356916	EPTC	33.1	41.1	P/P	18 - 85.0
2356916	Ethion	76.7	36.3	P/P	10 - 131
2356916	Ethoprop	80.9	87.5	P/P	65 - 129
2356916	Etridiazole	50.6	61.6	P/P	50 - 150
2356916	Fenamiphos	79.7	78.4	P/P	31 - 137
2356916	Fenbuconazole	78.8	83.8	P/P	57 - 160

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P419712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356916	Fipronil	86.7	87.9	P/P	62 - 132
2356916	Fipronil Desulfinyl	74.8	75.7	P/P	57 - 131
2356916	Fipronil Sulfide	65.9	72.1	P/P	15 - 138
2356916	Fipronil Sulfone	74.5	75.5	P/P	21 - 134
2356916	Fluazifop-P-butyl	78.4	75.6	P/P	54 - 133
2356916	Fludioxonil	76.4	73.9	P/P	58 - 127
2356916	Flumioxazin	120	117	P/P	33 - 300
2356916	Flutolanil	73.9	69.0	P/P	42 - 130
2356916	Fluxapyroxad	68.9	62.3	P/P	23 - 141
2356916	Fonofos	71.0	74.0	P/P	58 - 119
2356916	Hexazinone	97.2	103	P/P	68 - 172
2356916	Imazalil	100	90.4	P/P	48 - 283
2356916	Iprodione	81.9	80.6	P/P	38 - 140
2356916	Loratadine	103	176	P/F	50 - 150
2356916	Malathion	84.0	88.5	P/P	40 - 137
2356916	Metalaxyl	75.1	75.9	P/P	21 - 129
2356916	Metolachlor	80.8	84.8	P/P	55 - 122
2356916	Metribuzin	86.8	105	P/P	38 - 187
2356916	Mevinphos	63.2	72.3	P/P	54 - 134
2356916	Molinate	60.4	64.6	P/P	41 - 97.0
2356916	Myclobutanil	82.3	74.3	P/P	56 - 125
2356916	Naled	92.6	91.4	P/P	10 - 108
2356916	Napropamide	67.9	54.1	P/P	50 - 150
2356916	Norflurazon	91.7	94.1	P/P	32 - 122
2356916	Octinoxate	63.7	92.0	P/P	25 - 150
2356916	Oxadiazon	73.3	69.7	P/P	40 - 119
2356916	Oxybenzone	61.7	75.4	P/P	59 - 147
2356916	Oxyfluorfen	111	104	P/P	61 - 153
2356916	Parathion Ethyl	84.6	94.8	P/P	59 - 130
2356916	Parathion Methyl	93.0	121	P/P	65 - 155
2356916	PBDE-47	56.4	70.3	P/P	50 - 150
2356916	PBDE-99	44.4	55.1	F/P	50 - 150
2356916	Pendimethalin	75.4	81.6	P/P	49 - 138
2356916	Phenytoin	28.7	25.0	F/F	50 - 200
2356916	Phorate	76.1	70.2	P/P	54 - 161
2356916	Prodiamine	56.0	69.2	P/P	33 - 161
2356916	Prometon	77.4	81.1	P/P	48 - 140
2356916	Prometryn	67.8	68.7	P/P	55 - 134
2356916	Pronamide	95.1	98.7	P/P	66 - 137
2356916	Propanil	83.2	86.4	P/P	50 - 150
2356916	Propargite	59.2	45.2	P/F	50 - 200
2356916	Propiconazole	60.5	64.1	P/P	36 - 150
2356916	Pyraflufen Ethyl	58.2	60.6	P/P	50 - 150
2356916	Pyridaben	55.2	40.9	P/F	50 - 200
2356916	Pyriproxyfen	67.6	68.3	P/P	10 - 165
2356916	Simazine	82.6	95.1	P/P	57 - 145
2356916	Stirophos	51.1	31.4	P/F	50 - 150
2356916	Sulfentrazone	77.2	82.9	P/P	34 - 140
2356916	Tebuconazole	45.8	30.3	P/P	10 - 127
2356916	Terbufos	91.2	101	P/P	59 - 138
2356916	Terbutylazine	88.0	99.1	P/P	68 - 119
2356916	Thiobencarb	76.3	85.5	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P419712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356916	Tri-o-cresyl Phosphate	60.2	84.9	P/P	50 - 150
2356916	Triadimefon	73.4	65.2	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P419792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357199	Aldrin	65.9	55.4	P/P	20 - 82.0
2357199	Alpha-BHC	84.1	77.1	P/P	71 - 109
2357199	Alpha-Chlordane	67.7	62.0	P/P	42 - 106
2357199	Beta-BHC	82.6	91.1	P/P	69 - 180
2357199	Beta-Cyfluthrin	80.7	72.2	P/P	18 - 175
2357199	Bifenthrin	99.8	108	P/P	21 - 128
2357199	Chlorothalonil	109	87.8	P/P	10 - 300
2357199	Cis-Nonachlor	71.5	73.1	P/P	34 - 106
2357199	Cypermethrin	63.0	108	P/P	22 - 158
2357199	Dacthal	83.7	77.0	P/P	54 - 116
2357199	DDD-p,p'	56.5	107	P/P	34 - 107
2357199	DDE-p,p'	76.0	66.5	P/P	33 - 110
2357199	DDT-p,p'	70.6	67.4	P/P	50 - 122
2357199	Delta-BHC	108	96.4	P/P	77 - 193
2357199	Deltamethrin	105	101	P/P	10 - 195
2357199	Dichlobenil	62.4	62.3	P/P	25 - 113
2357199	Dicofol	62.6	104	P/P	38 - 247
2357199	Dieldrin	51.2	52.0	P/P	45 - 118
2357199	Endosulfan I	80.5	80.1	P/P	51 - 106
2357199	Endosulfan II	76.5	80.7	P/P	37 - 122
2357199	Endosulfan Sulfate	73.3	68.3	P/P	43 - 132
2357199	Endrin	82.7	67.3	P/P	29 - 101
2357199	Endrin Aldehyde	26.8	64.5	P/P	19 - 110
2357199	Endrin Ketone	82.7	91.3	P/P	60 - 140
2357199	Esfenvalerate	96.5	82.5	P/P	26 - 199
2357199	Ethalfuralin	66.7	67.8	P/P	45 - 99.0
2357199	Fenpropathrin	74.0	63.3	P/P	35 - 120
2357199	Gamma-BHC	90.8	91.3	P/P	63 - 128
2357199	Gamma-Chlordane	71.4	62.4	P/P	40 - 104
2357199	Heptachlor	66.2	63.7	P/P	36 - 97.0
2357199	Heptachlor Epoxide	51.4	55.8	P/P	49 - 184
2357199	Hexachlorobenzene	75.1	72.8	P/P	39 - 96.0
2357199	Kepone	155	137	P/P	10 - 217
2357199	Lambda-Cyhalothrin	64.5	121	P/P	21 - 193
2357199	Methoprene	72.6	73.7	P/P	20 - 106
2357199	Methoxychlor	85.4	78.8	P/P	53 - 118
2357199	MGK-264	77.8	72.8	P/P	40 - 118
2357199	Mirex	66.9	64.4	P/P	26 - 92.0
2357199	Oxychlordane	71.9	73.9	P/P	44 - 99.0
2357199	Permethrin	57.7	102	P/P	33 - 182
2357199	Phenothrin	60.8	85.9	P/P	10 - 129
2357199	Piperonyl Butoxide	90.5	68.8	P/P	10 - 211
2357199	Prallethrin	73.4	75.3	P/P	24 - 113
2357199	Tau-Fluvalinate	83.0	81.8	P/P	14 - 149
2357199	Tetramethrin	150	140	P/P	17 - 151

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P419792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357199	Trans-Nonachlor	75.0	66.1	P/P	42 - 102
2357199	Triclosan Methyl	83.2	66.9	P/P	48 - 108
2357199	Trifluralin	66.9	65.0	P/P	47 - 96.0
2357336	PCB-1016	105	107	P/P	46 - 111
2357336	PCB-1260	84.8	84.6	P/P	45 - 114

Reference Method: EPA 8276
Batch ID: P419792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357336	Chlordane	87.2	88.2	P/P	53 - 126
2357336	Toxaphene	89.5	86.3	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P419612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356572	Acesulfame K	110	109	P/P	40 - 150
2356572	AMPA	103	94.6	P/P	40 - 150
2356572	Endothall	99.4	97.9	P/P	40 - 150
2356572	Glufosinate	85.8	91.8	P/P	40 - 150
2356572	Glyphosate	117	115	P/P	40 - 150
2356572	Sucralose	105	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356891	3-Hydroxycarbofuran	96.6	117	P/P	30 - 160
2356891	Aldicarb	60.5	76.1	P/P	30 - 150
2356891	Aldicarb Sulfone	108	116	P/P	30 - 160
2356891	Aldicarb Sulfoxide	65.5	71.6	P/P	30 - 160
2356891	Carbaryl	66.5	70.4	P/P	30 - 160
2356891	Carbofuran	72.8	70.0	P/P	30 - 160
2356891	Methiocarb	82.2	82.1	P/P	30 - 160
2356891	Methomyl	92.1	103	P/P	30 - 160
2356891	Oxamyl	97.1	105	P/P	30 - 160
2356891	Propoxur	64.8	69.8	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P419841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356890	2,4-D	97.8	107	P/P	30 - 160
2356890	2,4,5-T	86.4	83.7	P/P	30 - 160
2356890	Acetaminophen	119	119	P/P	30 - 150
2356890	Acetamiprid	60.8	60.4	P/P	30 - 160
2356890	Afidopyropen	89.0	82.7	P/P	30 - 160
2356890	Benzovindiflupyr	79.8	79.4	P/P	30 - 160
2356890	Carbamazepine	69.7	70.2	P/P	30 - 160
2356890	Clothianidin	111	119	P/P	30 - 160
2356890	Dinotefuran	114	116	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P419841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2356890	Diuron	51.9	50.9	P/P	30 - 160
2356890	Fenuron	96.6	94.4	P/P	30 - 160
2356890	Fluridone	96.5	88.1	P/P	30 - 160
2356890	Hydrocodone	100	101	P/P	30 - 160
2356890	Ibuprofen	81.4	92.6	P/P	30 - 160
2356890	Linuron	78.6	73.5	P/P	30 - 160
2356890	Mandestrobin	91.4	97.4	P/P	30 - 160
2356890	MCCP	89.3	96.1	P/P	30 - 160
2356890	Naproxen	102	95.2	P/P	30 - 160
2356890	Primidone	103	120	P/P	30 - 160
2356890	Pyraclostrobin	91.0	91.2	P/P	30 - 160
2356890	Silvex	85.6	89.3	P/P	30 - 160
2356890	Thiamethoxam	140	141	P/P	30 - 160
2356890	Tolfenpyrad	64.7	67.5	P/P	30 - 160
2356890	Triclopyr	79.8	94.7	P/P	30 - 160

Reference Method: SM 4500-F- C-2011
Batch ID: P420215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357236	Fluoride	100	99.8	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357184	Organic Carbon	99.4	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357321	Color (true)	1.72	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357323	Turbidity	5.68	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357289	Calcium	0.389	Spike	P	0 - 20
2357289	Iron	1.93	Spike	P	0 - 20
2357289	Magnesium	1.59	Spike	P	0 - 20
2357289	Potassium	0.258	Spike	P	0 - 20
2357289	Sodium	0.359	Spike	P	0 - 20
2357289	Strontium	0.731	Spike	P	0 - 20
2357289	Tin	0.0959	Spike	P	0 - 20
2357289	Titanium	0.204	Spike	P	0 - 20
2357289	Vanadium	0.354	Spike	P	0 - 20
2357289	Zinc	0.352	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357289	Aluminum	0.373	Spike	P	0 - 20
2357289	Antimony	1.08	Spike	P	0 - 20
2357289	Arsenic	0.750	Spike	P	0 - 20
2357289	Barium	0.167	Spike	P	0 - 20
2357289	Beryllium	0.982	Spike	P	0 - 20
2357289	Boron	0.968	Spike	P	0 - 20
2357289	Cadmium	0.851	Spike	P	0 - 20
2357289	Chromium	0.403	Spike	P	0 - 20
2357289	Cobalt	0.156	Spike	P	0 - 20
2357289	Copper	0.479	Spike	P	0 - 20
2357289	Lead	0.487	Spike	P	0 - 20
2357289	Manganese	0.604	Spike	P	0 - 20
2357289	Molybdenum	0.0779	Spike	P	0 - 20
2357289	Nickel	0.0631	Spike	P	0 - 20
2357289	Selenium	2.47	Spike	P	0 - 20
2357289	Silver	0.603	Spike	P	0 - 20
2357289	Thallium	0.0495	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357095	Chloride	0.287	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357378	Chloride	0.473	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357095	Sulfate	0.287	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357378	Sulfate	0.755	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420112

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357046	Ammonia-N	0.888	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357384	Ammonia-N	0.587	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357285	Kjeldahl Nitrogen	3.15	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357235	NO2NO3-N	0.542	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P419839

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357151	Total-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P419993

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357099	Total-P	0.819	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P419712

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2356916	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	28.6	Spike	P	0 - 30
2356916	Acetochlor	9.70	Spike	P	0 - 27
2356916	Alachlor	11.1	Spike	P	0 - 27
2356916	Ametryn	6.32	Spike	P	0 - 34
2356916	Atrazine	11.2	Spike	P	0 - 41
2356916	Atrazine Desethyl	20.3	Spike	P	0 - 38
2356916	Avobenzone	21.8	Spike	P	0 - 30
2356916	Azinphos Methyl	9.67	Spike	P	0 - 62
2356916	Azoxystrobin	28.5	Spike	P	0 - 32
2356916	Bromacil	9.57	Spike	P	0 - 30
2356916	Butylate	16.8	Spike	P	0 - 59
2356916	Caffeine	9.14	Spike	P	0 - 60
2356916	Carbophenothion	0.494	Spike	P	0 - 25
2356916	Carfentrazone Ethyl	5.59	Spike	P	0 - 26
2356916	Chlorfenapyr	0.890	Spike	P	0 - 30
2356916	Chlorpyrifos Ethyl	5.83	Spike	P	0 - 27
2356916	Chlorpyrifos Methyl	11.4	Spike	P	0 - 26
2356916	Coumaphos	17.5	Spike	P	0 - 30
2356916	Cyanazine	3.82	Spike	P	0 - 58
2356916	Cyprodinil	4.42	Spike	P	0 - 30
2356916	Dechlorane Plus	18.7	Spike	P	0 - 30
2356916	Demeton	17.2	Spike	P	0 - 25
2356916	Diazinon	12.3	Spike	P	0 - 29
2356916	Difenoconazole	13.5	Spike	P	0 - 25
2356916	Dimethenamid	2.37	Spike	P	0 - 30
2356916	Dimethomorph	54.0	Spike	F	0 - 30
2356916	Disulfoton	8.07	Spike	P	0 - 33
2356916	Dithiopyr	11.5	Spike	P	0 - 22
2356916	EPTC	21.6	Spike	P	0 - 38
2356916	Ethion	71.5	Spike	P	0 - 79
2356916	Ethoprop	7.85	Spike	P	0 - 23
2356916	Etridiazole	19.5	Spike	P	0 - 30
2356916	Fenamiphos	1.63	Spike	P	0 - 58
2356916	Fenbuconazole	6.19	Spike	P	0 - 37
2356916	Fipronil	1.43	Spike	P	0 - 33
2356916	Fipronil Desulfinyl	1.27	Spike	P	0 - 26
2356916	Fipronil Sulfide	9.09	Spike	P	0 - 37

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P419712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2356916	Fipronil Sulfone	1.34	Spike	P	0 - 50
2356916	Fluazifop-P-butyl	3.54	Spike	P	0 - 24
2356916	Fludioxonil	3.23	Spike	P	0 - 26
2356916	Flumioxazin	3.28	Spike	P	0 - 37
2356916	Flutolanil	6.72	Spike	P	0 - 26
2356916	Fluxapyroxad	10.1	Spike	P	0 - 34
2356916	Fonofos	4.12	Spike	P	0 - 27
2356916	Hexazinone	6.19	Spike	P	0 - 36
2356916	Imazalil	10.4	Spike	P	0 - 65
2356916	Iprodione	1.62	Spike	P	0 - 33
2356916	Loratadine	52.5	Spike	F	0 - 30
2356916	Malathion	5.23	Spike	P	0 - 44
2356916	Metalaxyl	0.904	Spike	P	0 - 38
2356916	Metolachlor	4.83	Spike	P	0 - 36
2356916	Metribuzin	18.7	Spike	P	0 - 63
2356916	Mevinphos	13.5	Spike	P	0 - 26
2356916	Molinate	6.61	Spike	P	0 - 40
2356916	Myclobutanil	10.2	Spike	P	0 - 21
2356916	Naled	1.29	Spike	P	0 - 26
2356916	Napropamide	22.7	Spike	P	0 - 30
2356916	Norflurazon	1.50	Spike	P	0 - 24
2356916	Octinoxate	36.4	Spike	F	0 - 30
2356916	Oxadiazon	5.03	Spike	P	0 - 27
2356916	Oxybenzone	20.0	Spike	P	0 - 30
2356916	Oxyfluorfen	6.13	Spike	P	0 - 24
2356916	Parathion Ethyl	11.4	Spike	P	0 - 28
2356916	Parathion Methyl	25.9	Spike	P	0 - 27
2356916	PBDE-47	21.9	Spike	P	0 - 30
2356916	PBDE-99	21.4	Spike	P	0 - 30
2356916	Pendimethalin	7.83	Spike	P	0 - 31
2356916	Phenytoin	13.9	Spike	P	0 - 30
2356916	Phorate	7.99	Spike	P	0 - 27
2356916	Prodiamine	21.0	Spike	P	0 - 52
2356916	Prometon	4.73	Spike	P	0 - 31
2356916	Prometryn	1.31	Spike	P	0 - 28
2356916	Pronamide	3.72	Spike	P	0 - 26
2356916	Propanil	3.74	Spike	P	0 - 30
2356916	Propargite	26.9	Spike	P	0 - 30
2356916	Propiconazole	5.81	Spike	P	0 - 31
2356916	Pyraflufen Ethyl	4.20	Spike	P	0 - 30
2356916	Pyridaben	29.7	Spike	P	0 - 30
2356916	Pyriproxyfen	0.962	Spike	P	0 - 50
2356916	Simazine	14.0	Spike	P	0 - 29
2356916	Stirophos	47.8	Spike	F	0 - 30
2356916	Sulfentrazone	7.10	Spike	P	0 - 33
2356916	Tebuconazole	40.7	Spike	P	0 - 44
2356916	Terbufos	10.4	Spike	P	0 - 29
2356916	Terbuthylazine	11.8	Spike	P	0 - 27
2356916	Thiobencarb	11.4	Spike	P	0 - 30
2356916	Tri-o-cresyl Phosphate	34.0	Spike	F	0 - 30
2356916	Triadimefon	11.8	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P419792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357199	Aldrin	17.3	Spike	P	0 - 41
2357199	Alpha-BHC	8.33	Spike	P	0 - 25
2357199	Alpha-Chlordane	5.56	Spike	P	0 - 33
2357199	Beta-BHC	8.33	Spike	P	0 - 36
2357199	Beta-Cyfluthrin	11.1	Spike	P	0 - 42
2357199	Bifenthrin	7.59	Spike	P	0 - 53
2357199	Chlorothalonil	21.9	Spike	P	0 - 71
2357199	Cis-Nonachlor	2.26	Spike	P	0 - 29
2357199	Cypermethrin	52.3	Spike	F	0 - 40
2357199	Dacthal	8.31	Spike	P	0 - 26
2357199	DDD-p,p'	61.7	Spike	F	0 - 39
2357199	DDE-p,p'	13.3	Spike	P	0 - 33
2357199	DDT-p,p'	4.62	Spike	P	0 - 40
2357199	Delta-BHC	10.7	Spike	P	0 - 37
2357199	Deltamethrin	4.48	Spike	P	0 - 100
2357199	Dichlobenil	0.228	Spike	P	0 - 40
2357199	Dicofol	49.7	Spike	F	0 - 31
2357199	Dieldrin	0.482	Spike	P	0 - 27
2357199	Endosulfan I	0.451	Spike	P	0 - 23
2357199	Endosulfan II	5.31	Spike	P	0 - 28
2357199	Endosulfan Sulfate	7.13	Spike	P	0 - 38
2357199	Endrin	20.5	Spike	P	0 - 63
2357199	Endrin Aldehyde	82.6	Spike	F	0 - 60
2357199	Endrin Ketone	9.42	Spike	P	0 - 37
2357199	Esfenvalerate	15.6	Spike	P	0 - 52
2357199	Ethalfuralin	1.66	Spike	P	0 - 23
2357199	Fenpropathrin	15.5	Spike	P	0 - 32
2357199	Gamma-BHC	0.510	Spike	P	0 - 17
2357199	Gamma-Chlordane	9.98	Spike	P	0 - 40
2357199	Heptachlor	3.86	Spike	P	0 - 29
2357199	Heptachlor Epoxide	2.67	Spike	P	0 - 25
2357199	Hexachlorobenzene	3.14	Spike	P	0 - 36
2357199	Kepone	11.9	Spike	P	0 - 93
2357199	Lambda-Cyhalothrin	61.1	Spike	F	0 - 55
2357199	Methoprene	1.51	Spike	P	0 - 53
2357199	Methoxychlor	6.90	Spike	P	0 - 29
2357199	MGK-264	6.04	Spike	P	0 - 35
2357199	Mirex	3.87	Spike	P	0 - 46
2357199	Oxychlordane	2.80	Spike	P	0 - 29
2357199	Permethrin	55.8	Spike	F	0 - 44
2357199	Phenothrin	34.3	Spike	P	0 - 56
2357199	Piperonyl Butoxide	21.1	Spike	P	0 - 100
2357199	Prallethrin	2.62	Spike	P	0 - 42
2357199	Tau-Fluvalinate	1.43	Spike	P	0 - 54
2357199	Tetramethrin	7.19	Spike	P	0 - 51
2357199	Trans-Nonachlor	11.4	Spike	P	0 - 37
2357199	Triclosan Methyl	21.8	Spike	P	0 - 31
2357199	Trifluralin	2.89	Spike	P	0 - 30
2357336	PCB-1016	1.67	Spike	P	0 - 32
2357336	PCB-1260	0.243	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P419792

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357336	Chlordane	1.11	Spike	P	0 - 25
2357336	Toxaphene	3.64	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P419612

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2356572	Acesulfame K	0.921	Spike	P	0 - 30
2356572	AMPA	8.03	Spike	P	0 - 30
2356572	Endothall	1.60	Spike	P	0 - 30
2356572	Glufosinate	6.78	Spike	P	0 - 30
2356572	Glyphosate	2.29	Spike	P	0 - 30
2356572	Sucralose	1.06	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P419676

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2356891	3-Hydroxycarbofuran	19.2	Spike	P	0 - 30
2356891	Aldicarb	22.7	Spike	P	0 - 30
2356891	Aldicarb Sulfone	6.72	Spike	P	0 - 30
2356891	Aldicarb Sulfoxide	8.91	Spike	P	0 - 30
2356891	Carbaryl	5.68	Spike	P	0 - 30
2356891	Carbofuran	4.00	Spike	P	0 - 30
2356891	Methiocarb	0.0268	Spike	P	0 - 30
2356891	Methomyl	10.7	Spike	P	0 - 30
2356891	Oxamyl	8.04	Spike	P	0 - 30
2356891	Propoxur	7.41	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P419841

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2356890	2,4-D	6.97	Spike	P	0 - 30
2356890	2,4,5-T	3.17	Spike	P	0 - 30
2356890	Acetaminophen	0.0925	Spike	P	0 - 30
2356890	Acetamiprid	0.694	Spike	P	0 - 30
2356890	Afidopyropen	7.44	Spike	P	0 - 30
2356890	Bentazon	1.63	Spike	P	0 - 30
2356890	Benzovindiflupyr	0.440	Spike	P	0 - 30
2356890	Carbamazepine	0.686	Spike	P	0 - 30
2356890	Clothianidin	6.91	Spike	P	0 - 30
2356890	Dinotefuran	0.974	Spike	P	0 - 30
2356890	Diuron	1.96	Spike	P	0 - 30
2356890	Fenuron	2.20	Spike	P	0 - 30
2356890	Fluridone	7.75	Spike	P	0 - 30
2356890	Hydrocodone	0.537	Spike	P	0 - 30
2356890	Ibuprofen	12.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P419841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2356890	Imazapyr	3.93	Spike	P	0 - 30
2356890	Imidacloprid	0.550	Spike	P	0 - 30
2356890	Linuron	6.80	Spike	P	0 - 30
2356890	Mandestrobin	6.27	Spike	P	0 - 30
2356890	MCPP	7.32	Spike	P	0 - 30
2356890	Naproxen	7.02	Spike	P	0 - 30
2356890	Primidone	15.9	Spike	P	0 - 30
2356890	Pyraclostrobin	0.318	Spike	P	0 - 30
2356890	Silvex	4.30	Spike	P	0 - 30
2356890	Thiamethoxam	0.00712	Spike	P	0 - 30
2356890	Tolfenpyrad	4.15	Spike	P	0 - 30
2356890	Triclopyr	17.1	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P420276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357377	Total Alkalinity	1.48	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P420189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357236	TDS	6.69	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P420215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357236	Fluoride	0.479	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P419944

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357184	Organic Carbon	0.656	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2357334
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	60.5	P	30 - 160

Lab Sample ID: 2357335
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	97.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.3	P	30 - 160
EPA 8321B	Diuron-d6	71.6	P	30 - 160
EPA 8321B	Endothall-d6	91.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.8	P	30 - 160
EPA 8321B	Primidone-d5	122	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2357336
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	92.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	77.9	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	59.0	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	66.9	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	81.6	P	30 - 101
EPA 8276	PCNB	82.4	P	48 - 121

Lab Sample ID: 2357337
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	60.9	P	20 - 200
EPA 8270E	Simazine-d10	109	P	71 - 140
EPA 8270E	Terbufos-d10	102	P	62 - 131
EPA 8270E	Terphenyl-d14	82.1	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A114787

Included Lab Sample IDs: 2357321, 2357323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114790

Included Lab Sample IDs: 2357321, 2357323

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

Reference Method: EPA 8321B

Run ID: A114835

Included Lab Sample IDs: 2357334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	106	105	P/P	60 - 150
Aldicarb	115	105	P/P	60 - 150
Aldicarb Sulfone	102	104	P/P	50 - 150
Aldicarb Sulfoxide	105	105	P/P	50 - 150
Carbaryl	120	124	P/P	60 - 150
Carbofuran	115	96.0	P/P	50 - 150
Methiocarb	121	110	P/P	50 - 150
Methomyl	104	109	P/P	50 - 150
Oxamyl	103	108	P/P	50 - 150
Propoxur	110	99.0	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A114851

Included Lab Sample IDs: 2357335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	105	107	P/P	60 - 160
Endothall	74.9	80.6	P/P	60 - 160
Glufosinate	73.0	75.6	P/P	60 - 160
Glyphosate	108	114	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114853

Included Lab Sample IDs: 2357335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	120	P/P	60 - 160
Sucralose	107	107	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114857

Included Lab Sample IDs: 2357321, 2357323

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114857

Included Lab Sample IDs: 2357321, 2357323

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114864

Included Lab Sample IDs: 2357324

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.0	96.8	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A114868

Included Lab Sample IDs: 2357322, 2357324

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.6	95.6	P/P	90 - 110
Organic Carbon	95.9	94.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114877

Included Lab Sample IDs: 2357336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	100		P	80 - 120
PCB-1260	98.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114903

Included Lab Sample IDs: 2357338, 2357339, 2357340, 2357341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Aluminum	101	103	P/P	90 - 110
Antimony	97.5	97.0	P/P	90 - 110
Antimony	97.8	97.5	P/P	90 - 110
Arsenic	98.5	99.4	P/P	90 - 110
Arsenic	99.4	98.4	P/P	90 - 110
Barium	97.7	96.9	P/P	90 - 110
Barium	97.9	97.7	P/P	90 - 110
Beryllium	94.9	93.7	P/P	90 - 110
Beryllium	95.3	94.9	P/P	90 - 110
Boron	98.6	100	P/P	90 - 110
Boron	100	103	P/P	90 - 110
Cadmium	99.3	99.8	P/P	90 - 110
Cadmium	99.8	98.6	P/P	90 - 110
Chromium	97.7	98.4	P/P	90 - 110
Chromium	98.4	96.7	P/P	90 - 110
Cobalt	101	99.4	P/P	90 - 110
Cobalt	99.5	101	P/P	90 - 110
Copper	97.4	99.0	P/P	90 - 110
Copper	99.0	97.1	P/P	90 - 110
Lead	95.6	95.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114903

Included Lab Sample IDs: 2357338, 2357339, 2357340, 2357341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	96.4	95.6	P/P	90 - 110
Manganese	100	98.8	P/P	90 - 110
Manganese	99.1	100	P/P	90 - 110
Molybdenum	97.0	97.3	P/P	90 - 110
Molybdenum	97.3	95.8	P/P	90 - 110
Nickel	100	98.3	P/P	90 - 110
Nickel	98.6	100	P/P	90 - 110
Selenium	98.5	99.4	P/P	90 - 110
Selenium	99.4	98.7	P/P	90 - 110
Silver	99.4	99.5	P/P	90 - 110
Silver	99.5	98.4	P/P	90 - 110
Thallium	93.3	93.1	P/P	90 - 110
Thallium	94.6	93.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114906

Included Lab Sample IDs: 2357336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.6		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	106		P	80 - 120
Beta-BHC	99.1		P	80 - 120
Beta-Cyfluthrin	96.5		P	80 - 120
Bifenthrin	94.9		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	101		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	109		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	98.3		P	80 - 120
Deltamethrin	95.6		P	80 - 120
Dichlobenil	96.9		P	80 - 120
Dicofol	99.9		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	97.8		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	99.6		P	80 - 120
Endrin Ketone	91.4		P	80 - 120
Esfenvalerate	100		P	80 - 120
Ethalfuralin	105		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	108		P	80 - 120
Gamma-Chlordane	103		P	80 - 120
Heptachlor	97.3		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	98.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114906
Included Lab Sample IDs: 2357336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kepone	109		P	80 - 120
Lambda-Cyhalothrin	97.9		P	80 - 120
Methoprene	99.0		P	80 - 120
Methoxychlor	96.7		P	80 - 120
MGK-264	100		P	80 - 120
Mirex	101		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	100		P	80 - 120
Phenothrin	98.0		P	80 - 120
Piperonyl Butoxide	100		P	80 - 120
Prallethrin	97.6		P	80 - 120
Tau-Fluvalinate	97.7		P	80 - 120
Tetramethrin	90.8		P	80 - 120
Trans-Nonachlor	106		P	80 - 120
Triclosan Methyl	97.4		P	80 - 120
Trifluralin	103		P	80 - 120

Reference Method: EPA 8276
Run ID: A114908
Included Lab Sample IDs: 2357336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	94.0		P	80 - 120

Reference Method: EPA 8321B
Run ID: A114916
Included Lab Sample IDs: 2357335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	111	P/P	50 - 150
2,4,5-T	114	112	P/P	50 - 150
Acetaminophen	114	110	P/P	60 - 160
Acetamiprid	104	103	P/P	50 - 150
Afidopyropen	107	112	P/P	50 - 150
Bentazon	109	99.2	P/P	50 - 160
Benzovindiflupyr	113	119	P/P	50 - 160
Carbamazepine	110	107	P/P	60 - 150
Clothianidin	113	104	P/P	60 - 150
Dinotefuran	110	112	P/P	50 - 150
Diuron	116	113	P/P	60 - 160
Fenuron	106	106	P/P	60 - 150
Fluridone	112	110	P/P	60 - 160
Hydrocodone	109	117	P/P	60 - 150
Ibuprofen	109	142	P/P	50 - 160
Imazapyr	98.5	99.0	P/P	50 - 150
Imidacloprid	103	100	P/P	60 - 150
Linuron	100	109	P/P	60 - 150
Mandestrobin	116	111	P/P	50 - 150
MCPP	93.6	101	P/P	50 - 150
Naproxen	105	86.5	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114916
Included Lab Sample IDs: 2357335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	93.9	106	P/P	60 - 150
Pyraclostrobin	107	109	P/P	60 - 150
Silvex	103	104	P/P	50 - 150
Thiamethoxam	108	111	P/P	50 - 150
Tolfenpyrad	116	118	P/P	60 - 150
Triclopyr	91.5	106	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A114926
Included Lab Sample IDs: 2357337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.8		P	80 - 120
Alachlor	97.8		P	80 - 120
Ametryn	91.4		P	80 - 120
Atrazine	95.1		P	80 - 120
Atrazine Desethyl	91.3		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	97.4		P	80 - 120
Bromacil	94.0		P	80 - 120
Butylate	98.4		P	80 - 120
Caffeine	99.3		P	80 - 120
Carbophenothion	96.6		P	80 - 120
Carfentrazone Ethyl	96.9		P	80 - 120
Chlorfenapyr	92.1		P	80 - 120
Chlorpyrifos Ethyl	94.6		P	80 - 120
Chlorpyrifos Methyl	94.5		P	80 - 120
Coumaphos	89.4		P	80 - 120
Cyanazine	91.8		P	80 - 120
Cyprodinil	96.6		P	80 - 120
Demeton	96.8		P	80 - 120
Diazinon	97.5		P	80 - 120
Difenoconazole	93.3		P	80 - 120
Dimethenamid	95.9		P	80 - 120
Dimethomorph	98.5		P	80 - 120
Disulfoton	92.6		P	80 - 120
Dithiopyr	92.1		P	80 - 120
EPTC	99.3		P	80 - 120
Ethion	99.2		P	80 - 120
Ethoprop	96.7		P	80 - 120
Etridiazole	96.2		P	80 - 120
Fenamiphos	97.3		P	80 - 120
Fenbuconazole	92.1		P	80 - 120
Fipronil	97.4		P	80 - 120
Fipronil Desulfinyl	95.5		P	80 - 120
Fipronil Sulfide	98.4		P	80 - 120
Fipronil Sulfone	93.9		P	80 - 120
Fluazifop-P-butyl	97.2		P	80 - 120
Fludioxonil	98.0		P	80 - 120
Flumioxazin	92.0		P	80 - 120
Flutolanil	97.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114926
Included Lab Sample IDs: 2357337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluxapyroxad	93.4		P	80 - 120
Fonofos	97.5		P	80 - 120
Hexazinone	97.6		P	80 - 120
Imazalil	95.4		P	80 - 120
Iprodione	94.4		P	80 - 120
Loratadine	97.2		P	80 - 120
Malathion	94.3		P	80 - 120
Metalaxyl	95.7		P	80 - 120
Metolachlor	99.0		P	80 - 120
Metribuzin	98.9		P	80 - 120
Mevinphos	90.0		P	80 - 120
Molinate	99.4		P	80 - 120
Myclobutanil	97.3		P	80 - 120
Naled	95.6		P	80 - 120
Napropamide	98.1		P	80 - 120
Norflurazon	91.1		P	80 - 120
Oxadiazon	96.7		P	80 - 120
Oxyfluorfen	99.2		P	80 - 120
Parathion Ethyl	99.0		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	104		P	80 - 120
Phenytoin	93.8		P	80 - 120
Phorate	97.7		P	80 - 120
Prodiamine	97.2		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	97.9		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	102		P	80 - 120
Propargite	96.2		P	80 - 120
Propiconazole	93.6		P	80 - 120
Pyraflufen Ethyl	93.3		P	80 - 120
Pyridaben	96.0		P	80 - 120
Pyriproxyfen	97.9		P	80 - 120
Simazine	97.1		P	80 - 120
Stiropfos	94.2		P	80 - 120
Sulfentrazone	86.6		P	80 - 120
Tebuconazole	96.2		P	80 - 120
Terbufos	98.8		P	80 - 120
Terbuthylazine	101		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	95.4		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114937
Included Lab Sample IDs: 2357322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.2	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114942

Included Lab Sample IDs: 2357322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	98.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A114980

Included Lab Sample IDs: 2357321, 2357323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	97.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114997

Included Lab Sample IDs: 2357324

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

Reference Method: SM 2320 B-2011

Run ID: A115007

Included Lab Sample IDs: 2357321, 2357323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115017

Included Lab Sample IDs: 2357338, 2357339, 2357340, 2357341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.2	96.6	P/P	90 - 110
Iron	99.9	99.5	P/P	90 - 110
Magnesium	97.9	97.1	P/P	90 - 110
Potassium	98.6	98.0	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Strontium	99.3	100	P/P	90 - 110
Tin	95.5	95.2	P/P	90 - 110
Titanium	98.9	99.0	P/P	90 - 110
Vanadium	98.0	97.4	P/P	90 - 110
Zinc	95.0	94.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115027

Included Lab Sample IDs: 2357322, 2357324

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115032

Included Lab Sample IDs: 2357322, 2357324

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115032

Included Lab Sample IDs: 2357322, 2357324

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115064

Included Lab Sample IDs: 2357337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	100		P	80 - 120
Avobenzone	98.0		P	80 - 120
Dechlorane Plus	101		P	80 - 120
Octinoxate	97.4		P	80 - 120
Oxybenzone	96.6		P	80 - 120
PBDE-47	97.0		P	80 - 120
PBDE-99	101		P	80 - 120
Tri-o-cresyl Phosphate	98.1		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			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	103				1.72	
EPA 180.1 Rev. 2.0	Turbidity	101				5.68	
EPA 200.7 Rev. 4.4	Calcium	103	99.5	98.9	98.5		0.389
	Iron	102	104	102	101		1.93
	Magnesium	102	102	100	102		1.59
	Potassium	103	101	101	101		0.258
	Sodium	106	99.6	99.0	103		0.359
	Strontium	101	105	104	103		0.731
	Tin	98.4	101	101	98.4		0.0959
	Titanium	99.9	102	102	100		0.204
	Vanadium	99.4	100	100	99.3		0.354
	Zinc	96.6	96.5	96.1	95.6		0.352
EPA 200.8 Rev. 5.4	Aluminum	102	98.5	98.1	100		0.373
	Antimony	104	101	100	99.8		1.08
	Arsenic	102	99.8	99.1	100		0.750
	Barium	105	101	100	101		0.167
	Beryllium	92.8	91.1	90.1	89.9		0.982
	Boron	105	100	101	104		0.968
	Cadmium	102	98.6	99.4	99.3		0.851
	Chromium	102	99.9	100	100		0.403
	Cobalt	104	101	101	102		0.156
	Copper	101	98.9	99.4	100		0.479
	Lead	97.4	96.1	95.6	95.6		0.487
	Manganese	104	98.3	99.2			0.604
	Molybdenum	99.0	96.2	96.1	96.7		0.0779
	Nickel	102	99.8	99.8	101		0.0631
	Selenium	101	98.3	95.9	98.0		2.47
	Silver	87.3	83.2	83.7	84.2		0.603
	Thallium	96.2	95.3	95.3	93.9		0.0495
EPA 300.0 Rev. 2.1	Chloride	103	101	101		0.287	
	Chloride	105	105	102		0.473	
	Sulfate	103	98.8	99.0		0.287	
	Sulfate	104	102	101		0.755	
EPA 350.1 Rev. 2.0	Ammonia-N	95.2	102	103			0.888
	Ammonia-N	97.0	99.8	101			0.587
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	97.5	101			3.15
EPA 353.2 Rev. 2.0	NO2NO3-N	100	92.0	92.5			0.542
EPA 365.1 Rev. 2.0	Total-P	105	106	106			0.0
	Total-P	104	106	107			0.819
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	80.3	43.8	58.5			28.6
	Acetochlor	97.5	90.5	99.8			9.70
	Alachlor	93.5	81.8	91.4			11.1
	Aldrin	46.7	65.9	55.4			17.3
	Alpha-BHC	83.2	84.1	77.1			8.33
	Alpha-Chlordane	67.3	67.7	62.0			5.56
	Ametryn	83.3	67.8	76.4			6.32
	Atrazine	98.2	89.2	103			11.2
	Atrazine Desethyl	59.7	56.3	69.1			20.3
	Avobenzone	76.0	61.9	77.1			21.8
	Azinphos Methyl	138	105	115			9.67
	Azoxystrobin	136	98.5	139			28.5
	Beta-BHC	112	82.6	91.1			8.33

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Beta-Cyfluthrin	59.0	80.7	72.2			11.1
	Bifenthrin	36.6	99.8	108			7.59
	Bromacil	68.4	79.1	94.0			9.57
	Butylate	58.5	34.7	41.0			16.8
	Caffeine	78.0	84.1	76.5			9.14
	Carbophenothion	90.3	76.6	76.2			0.494
	Carfentrazone Ethyl	95.2	81.4	76.9			5.59
	Chlorfenapyr	81.1	64.0	64.6			0.890
	Chlorothalonil	65.0	109	87.8			21.9
	Chlorpyrifos Ethyl	91.4	71.7	67.7			5.83
	Chlorpyrifos Methyl	98.4	72.2	81.0			11.4
	Cis-Nonachlor	65.2	71.5	73.1			2.26
	Coumaphos	82.3	39.0	32.8			17.5
	Cyanazine	87.6	74.2	77.1			3.82
	Cypermethrin	62.6	63.0	108			52.3
	Cyprodinil	92.5	73.1	69.9			4.42
	Dacthal	85.6	83.7	77.0			8.31
	DDD-p,p'	82.9	56.5	107			61.7
	DDE-p,p'	68.3	76.0	66.5			13.3
	DDT-p,p'	65.5	70.6	67.4			4.62
	Dechlorane Plus	95.1	54.4	65.7			18.7
	Delta-BHC	115	108	96.4			10.7
	Deltamethrin	57.1	105	101			4.48
	Demeton	92.2	89.4	106			17.2
	Diazinon	98.1	90.4	102			12.3
	Dichlobenil	89.0	62.3	62.4			0.228
	Dicofol	81.0	104	62.6			49.7
	Dieldrin	75.8	51.2	52.0			0.482
	Difenoconazole	88.1	100	87.6			13.5
	Dimethenamid	67.6	71.2	69.5			2.37
	Dimethomorph	182	109	189			54.0
	Disulfoton	98.2	77.7	84.3			8.07
	Dithiopyr	86.1	62.2	70.6			11.5
	Endosulfan I	75.1	80.5	80.1			0.451
	Endosulfan II	81.0	76.5	80.7			5.31
	Endosulfan Sulfate	92.8	68.3	73.3			7.13
	Endrin	70.2	67.3	82.7			20.5
	Endrin Aldehyde	83.4	64.5	26.8			82.6
	Endrin Ketone	94.3	91.3	82.7			9.42
	EPTC	52.8	33.1	41.1			21.6
	Esfenvalerate	54.3	82.5	96.5			15.6
	Ethalfuralin	70.7	67.8	66.7			1.66
	Ethion	36.1	76.7	36.3			71.5
	Ethoprop	90.5	80.9	87.5			7.85
	Etridiazole	58.0	50.6	61.6			19.5
	Fenamiphos	96.6	79.7	78.4			1.63
	Fenbuconazole	86.6	78.8	83.8			6.19
	Fenpropathrin	62.2	63.3	74.0			15.5
	Fipronil	89.1	86.7	87.9			1.43
	Fipronil Desulfanyl	85.6	74.8	75.7			1.27
	Fipronil Sulfide	67.9	65.9	72.1			9.09
	Fipronil Sulfone	80.1	74.5	75.5			1.34
	Fluazifop-P-butyl	86.3	78.4	75.6			3.54
	Fludioxonil	82.8	76.4	73.9			3.23

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Flumioxazin	106	120	117			3.28
	Flutolanil	82.4	73.9	69.0			6.72
	Fluxapyroxad	60.7	68.9	62.3			10.1
	Fonofos	84.1	71.0	74.0			4.12
	Gamma-BHC	85.7	91.3	90.8			0.510
	Gamma-Chlordane	68.4	62.4	71.4			9.98
	Heptachlor	59.8	66.2	63.7			3.86
	Heptachlor Epoxide	73.2	51.4	55.8			2.67
	Hexachlorobenzene	63.8	72.8	75.1			3.14
	Hexazinone	87.4	97.2	103			6.19
	Imazalil	89.9	100	90.4			10.4
	Iprodione	90.5	81.9	80.6			1.62
	Kepone	187	137	155			11.9
	Lambda-Cyhalothrin	46.3	121	64.5			61.1
	Loratadine	180	103	176			52.5
	Malathion	104	84.0	88.5			5.23
	Metalaxyl	87.2	75.1	75.9			0.904
	Methoprene	41.1	73.7	72.6			1.51
	Methoxychlor	76.6	85.4	78.8			6.90
	Metolachlor	93.3	80.8	84.8			4.83
	Metribuzin	107	86.8	105			18.7
	Mevinphos	70.8	63.2	72.3			13.5
	MGK-264	83.0	72.8	77.8			6.04
	Mirex	45.1	66.9	64.4			3.87
	Molinate	75.7	64.6	60.4			6.61
	Myclobutanil	81.4	82.3	74.3			10.2
	Naled	77.9	92.6	91.4			1.29
	Napropamide	65.8	67.9	54.1			22.7
	Norflurazon	74.3	91.7	94.1			1.50
	Octinoxate	88.9	63.7	92.0			36.4
	Oxadiazon	72.9	73.3	69.7			5.03
	Oxybenzone	83.1	61.7	75.4			20.0
	Oxychlordane	68.3	71.9	73.9			2.80
	Oxyfluorfen	113	111	104			6.13
	Parathion Ethyl	99.6	84.6	94.8			11.4
	Parathion Methyl	115	93.0	121			25.9
	PBDE-47	67.3	56.4	70.3			21.9
	PBDE-99	76.0	44.4	55.1			21.4
	PCB-1016	85.5	105	107			1.67
	PCB-1260	80.2	84.8	84.6			0.243
	Pendimethalin	83.7	75.4	81.6			7.83
	Permethrin	58.3	102	57.7			55.8
	Phenothrin	39.5	85.9	60.8			34.3
	Phenytoin	11.3	28.7	25.0			13.9
	Phorate	77.3	76.1	70.2			7.99
	Piperonyl Butoxide	89.9	68.8	90.5			21.1
	Prallethrin	76.5	75.3	73.4			2.62
	Prodiamine	59.2	56.0	69.2			21.0
	Prometon	68.0	77.4	81.1			4.73
	Prometryn	84.5	67.8	68.7			1.31
	Pronamide	101	95.1	98.7			3.72
	Propanil	86.3	83.2	86.4			3.74
	Propargite	41.1	59.2	45.2			26.9
	Propiconazole	75.7	60.5	64.1			5.81

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pyraflufen Ethyl	75.2	58.2	60.6		4.20
	Pyridaben	96.0	55.2	40.9		29.7
	Pyriproxyfen	77.5	67.6	68.3		0.962
	Simazine	89.2	82.6	95.1		14.0
	Stiropfos	43.1	51.1	31.4		47.8
	Sulfentrazone	36.8	77.2	82.9		7.10
	Tau-Fluvalinate	41.6	81.8	83.0		1.43
	Tebuconazole	31.7	45.8	30.3		40.7
	Terbufos	109	91.2	101		10.4
	Terbuthylazine	94.4	88.0	99.1		11.8
	Tetramethrin	95.1	140	150		7.19
	Thiobencarb	91.7	76.3	85.5		11.4
	Trans-Nonachlor	67.9	66.1	75.0		11.4
	Tri-o-cresyl Phosphate	82.3	60.2	84.9		34.0
	Triadimefon	78.5	73.4	65.2		11.8
	Triclosan Methyl	75.8	66.9	83.2		21.8
	Trifluralin	66.4	65.0	66.9		2.89
EPA 8276	Chlordane	78.3	87.2	88.2		1.11
	Toxaphene	81.0	89.5	86.3		3.64
EPA 8321B	2,4-D	71.6	97.8	107		6.97
	2,4,5-T	65.9	86.4	83.7		3.17
	3-Hydroxycarbofuran	84.7	96.6	117		19.2
	Acesulfame K	115	110	109		0.921
	Acetaminophen	99.5	119	119		0.0925
	Acetamiprid	86.2	60.8	60.4		0.694
	Afidopyropen	71.1	89.0	82.7		7.44
	Aldicarb	73.5	60.5	76.1		22.7
	Aldicarb Sulfone	89.0	108	116		6.72
	Aldicarb Sulfoxide	91.8	65.5	71.6		8.91
	AMPA	105	103	94.6		8.03
	Bentazon	90.7				1.63
	Benzovindiflupyr	84.4	79.8	79.4		0.440
	Carbamazepine	87.7	69.7	70.2		0.686
	Carbaryl	68.5	66.5	70.4		5.68
	Carbofuran	78.1	72.8	70.0		4.00
	Clothianidin	98.6	111	119		6.91
	Dinotefuran	105	114	116		0.974
	Diuron	58.8	51.9	50.9		1.96
	Endothall	98.0	99.4	97.9		1.60
	Fenuron	107	96.6	94.4		2.20
	Fluridone	92.4	96.5	88.1		7.75
	Glufosinate	97.9	85.8	91.8		6.78
	Glyphosate	113	117	115		2.29
	Hydrocodone	96.5	100	101		0.537
	Ibuprofen	84.4	81.4	92.6		12.9
	Imazapyr	91.7				3.93
	Imidacloprid	93.3				0.550
	Linuron	91.9	78.6	73.5		6.80
	Mandestrobin	95.2	91.4	97.4		6.27
	MCPP	78.9	89.3	96.1		7.32
	Methiocarb	76.7	82.2	82.1		0.0268
	Methomyl	89.7	92.1	103		10.7
	Naproxen	81.2	102	95.2		7.02
	Oxamyl	90.9	97.1	105		8.04

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Primidone	95.1	103	120		15.9
	Propoxur	75.3	64.8	69.8		7.41
	Pyraclostrobin	82.2	91.0	91.2		0.318
	Silvex	61.4	85.6	89.3		4.30
	Sucralose	110	105	103		1.06
	Thiamethoxam	92.7	140	141		0.0071
	Tolfenpyrad	64.9	64.7	67.5		4.15
	Triclopyr	64.4	79.8	94.7		17.1
SM 2320 B-2011	Total Alkalinity	95.7			1.48	
SM 2540 C-2011	TDS				6.69	
SM 4500-F- C-2011	Fluoride	99.9	100	99.8		0.479
SM 5310 B-2011	Organic Carbon	95.0	99.4	100		0.656

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2357321, 2357323
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2357321, 2357323
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2357338, 2357339, 2357340, 2357341
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2357338, 2357339, 2357340, 2357341
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2357321, 2357323
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2357321, 2357323
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2357322, 2357324
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2357322, 2357324
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2357322, 2357324
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2357322, 2357324
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2357337
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2357336
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2357337
EPA 8270E	PCBs in water matrices by GC/MS/MS	2357336
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2357336
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2357334
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2357335
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2357321, 2357323
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2357338, 2357339, 2357340, 2357341
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2357321, 2357323
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2357321, 2357323
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2357321, 2357323
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2357322, 2357324

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	09/16/2022			09/16/2022 14:38	Samantha L Bates	2357321
	09/16/2022			09/16/2022 14:39	Samantha L Bates	2357323
EPA 180.1 Rev. 2.0	09/16/2022			09/16/2022 14:59	Chandler E Cox	2357323
	09/16/2022			09/16/2022 15:01	Chandler E Cox	2357321
EPA 200.7 Rev. 4.4	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/28/2022 21:51	Betina Topolski	2357338
	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/28/2022 22:10	Betina Topolski	2357339
	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/28/2022 22:15	Betina Topolski	2357340
	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/28/2022 22:23	Betina Topolski	2357341
EPA 200.8 Rev. 5.4	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/22/2022 17:44	Alexander Thompson	2357338
	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/22/2022 18:56	Alexander Thompson	2357339
	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/22/2022 19:05	Alexander Thompson	2357340
	09/16/2022	09/20/2022 08:20	Megan Whitefoot	09/22/2022 19:14	Alexander Thompson	2357341
EPA 300.0 Rev. 2.1	09/16/2022			09/23/2022 08:37	Anna M. Plaviak	2357321
	09/16/2022			09/23/2022 11:07	Anna M. Plaviak	2357323
EPA 350.1 Rev. 2.0	09/16/2022			09/26/2022 13:34	Judith K. Clark	2357322
	09/16/2022			09/28/2022 12:26	Ping Hua	2357324
EPA 351.2 Rev. 2.0	09/16/2022	09/22/2022 09:22	Alexandra J Mattheus	09/29/2022 11:32	Samantha L Bates	2357322
	09/16/2022	09/22/2022 09:22	Alexandra J Mattheus	09/29/2022 11:34	Samantha L Bates	2357324
EPA 353.2 Rev. 2.0	09/16/2022			09/29/2022 14:09	Judith K. Clark	2357322
	09/16/2022			09/29/2022 14:22	Judith K. Clark	2357324
EPA 365.1 Rev. 2.0	09/16/2022	09/21/2022 08:40	Adam P Silver	09/21/2022 16:55	Simonne.V. Calhoun	2357324
	09/16/2022	09/23/2022 12:15	Adam P Silver	09/26/2022 09:23	Simonne.V. Calhoun	2357322
EPA 8270E	09/16/2022	09/19/2022 08:00	Fe-Val Siddell	09/22/2022 21:42	Michael Poppell	2357337
	09/16/2022	09/19/2022 08:00	Fe-Val Siddell	09/29/2022 22:32	Lipi Saha	2357337
	09/16/2022	09/20/2022 08:30	Rasheda Ghaffari	09/21/2022 23:47	Vandana T. Nagar	2357336
	09/16/2022	09/20/2022 08:30	Rasheda Ghaffari	09/22/2022 01:41	Julie Wi	2357336
EPA 8276	09/16/2022	09/20/2022 08:30	Rasheda Ghaffari	09/23/2022 02:42	Arthur Maknenko	2357336
EPA 8321B	09/16/2022	09/16/2022 13:00	Umesh Chiluwal	09/17/2022 04:20	Umesh Chiluwal	2357335
	09/16/2022	09/16/2022 13:00	Umesh Chiluwal	09/19/2022 16:53	Umesh Chiluwal	2357335
	09/16/2022	09/20/2022 09:30	June Rhew	09/20/2022 19:05	Juyoung Kim	2357334
	09/16/2022	09/21/2022 08:45	June Rhew	09/22/2022 19:52	Juyoung Kim	2357335
SM 2320 B-2011	09/16/2022			09/28/2022 22:14	Adam P Silver	2357321
	09/16/2022			09/28/2022 22:23	Adam P Silver	2357323
SM 2340 B-2011	09/16/2022			09/28/2022 21:51	Betina Topolski	2357338
	09/16/2022			09/28/2022 22:10	Betina Topolski	2357339
	09/16/2022			09/28/2022 22:15	Betina Topolski	2357340
	09/16/2022			09/28/2022 22:23	Betina Topolski	2357341
SM 2540 C-2011	09/16/2022			09/20/2022 15:08	Yijie Li	2357321, 2357323
SM 2540 D-2011	09/16/2022			09/20/2022 15:08	Yijie Li	2357321, 2357323
SM 4500-F- C-2011	09/16/2022			09/28/2022 02:57	Adam P Silver	2357321

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	09/16/2022			09/28/2022 03:08	Adam P Silver	2357323
SM 5310 B-2011	09/16/2022			09/21/2022 16:37	Khloe J Berg	2357324
	09/16/2022			09/21/2022 21:09	Khloe J Berg	2357322