

Chemical Analysis Report

NW-DIST-2022-01-11-01

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

Event Description: **NW Run**
Request ID: **RQ-2022-01-10-28**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 02-FEB-2022 12:19



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: Big Escambia Creek Downstream of Fannie Rd. Collection Date/Time: 01/10/2022 11:20

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298693	EPA 8321B	Aldicarb	0.020	U	ug/L	P408407	
		Aldicarb Sulfone	0.0020	U	ug/L	P408407	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P408407	
		Carbaryl	0.0020	U	ug/L	P408407	
		Carbofuran	0.0020	U	ug/L	P408407	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P408407	
		Methiocarb	0.0020	U	ug/L	P408407	
		Methomyl	0.0020	U	ug/L	P408407	
		Oxamyl	0.0020	U	ug/L	P408407	
		Propoxur	0.0020	U	ug/L	P408407	
2298694		2,4-D	0.0020	U	ug/L	P408364	
		Acesulfame K	0.10	U	ug/L	P408366	
		2,4,5-T	0.0040	U	ug/L	P408364	
		AMPA	0.10	U	ug/L	P408366	
		Acetaminophen	0.0080	U	ug/L	P408364	
		Acetamiprid	0.0020	U	ug/L	P408364	
		Endothall	0.25	U	ug/L	P408366	
		Glufosinate	0.10	U	ug/L	P408366	
		Glyphosate	0.10	U	ug/L	P408366	
		Afidopyropen	0.0020	U	ug/L	P408364	
		Bentazon	8.0E-04	U	ug/L	P408364	
		Sucralose	0.10		ug/L	P408366	
		Benzovindiflupyr	0.0020	U	ug/L	P408364	
		Carbamazepine	8.0E-04	U	ug/L	P408364	
		Clothianidin	0.0020	U	ug/L	P408364	
		Dinotefuran	0.0020	U	ug/L	P408364	
		Diuron	0.0020	U	ug/L	P408364	
		Fenuron	0.016	U	ug/L	P408364	
		Fluridone	8.0E-04	U	ug/L	P408364	
		Imazapyr	0.046		ug/L	P408364	
		Hydrocodone	0.0020	U	ug/L	P408364	
		Ibuprofen	0.020	U	ug/L	P408364	MS, RPD
		Imidacloprid	0.0030	I	ug/L	P408364	
		Linuron	0.0040	U	ug/L	P408364	RPD
		Mandestrobin	0.0020	U	ug/L	P408364	
		MCPP	0.0040	U	ug/L	P408364	
		Naproxen	0.0080	U	ug/L	P408364	
		Primidone	0.0040	U	ug/L	P408364	
		Pyraclostrobin	0.0020	U	ug/L	P408364	
		Silvex	0.0040	U	ug/L	P408364	
		Thiamethoxam	0.0020	U	ug/L	P408364	
		Tolfenpyrad	0.0020	U	ug/L	P408364	
		Triclopyr	0.0040	U	ug/L	P408364	
2298698	EPA 8270E	Aldrin	0.66	U	ng/L	P408463	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298698	EPA 8270E	Alpha-BHC	0.10	U	ng/L	P408463	
		Alpha-Chlordane	0.20	U	ng/L	P408463	
		Beta-BHC	0.10	U	ng/L	P408463	
		Beta-Cyfluthrin**	1.3	U	ng/L	P408463	
		Bifenthrin**	0.51	U	ng/L	P408463	
		Chlorothalonil	1.3	U	ng/L	P408463	
		Cis-Nonachlor**	0.20	U	ng/L	P408463	
		Cypermethrin	1.5	U	ng/L	P408463	
		Dacthal**	0.15	U	ng/L	P408463	
		DDD-p,p'	0.25	U	ng/L	P408463	
		DDE-p,p'	0.20	U	ng/L	P408463	
		DDT-p,p'	0.25	U	ng/L	P408463	
		Delta-BHC	0.41	U	ng/L	P408463	
		Deltamethrin**	1.3	U	ng/L	P408463	
		Dichlobenil**	0.25	U	ng/L	P408463	RPD
		Dicofol	1.3	U	ng/L	P408463	
		Dieldrin	0.41	U	ng/L	P408463	
		Endosulfan I	0.41	U	ng/L	P408463	
		Endosulfan II	0.41	U	ng/L	P408463	
		Endosulfan Sulfate	0.30	U	ng/L	P408463	
		Endrin	0.41	U	ng/L	P408463	
		Endrin Aldehyde	0.76	U	ng/L	P408463	
		Endrin Ketone	0.41	U	ng/L	P408463	
		Esfenvalerate**	0.76	U	ng/L	P408463	
		Ethalfuralin**	0.15	U	ng/L	P408463	
		Fenpropathrin**	0.25	U	ng/L	P408463	
		Gamma-BHC	0.13	U	ng/L	P408463	
		Gamma-Chlordane	0.20	U	ng/L	P408463	
		Heptachlor	0.20	U	ng/L	P408463	
		Heptachlor Epoxide	0.25	U	ng/L	P408463	
		Hexachlorobenzene	1.0	U	ng/L	P408463	
		Kepone**	5.1	UJ	ng/L	P408463	CCV
		Lambda-Cyhalothrin**	0.76	U	ng/L	P408463	
		Methoprene**	0.76	U	ng/L	P408463	
		Methoxychlor	0.30	U	ng/L	P408463	
		MGK-264**	0.20	U	ng/L	P408463	
		Mirex	0.71	U	ng/L	P408463	
		Oxychlordane**	0.30	U	ng/L	P408463	
		Permethrin	1.6	U	ng/L	P408463	
		Phenothrin**	0.91	U	ng/L	P408463	
		Piperonyl Butoxide**	0.15	UJ	ng/L	P408463	CCV
		Prallethrin**	2.0	U	ng/L	P408463	
		Tau-Fluvalinate**	0.25	U	ng/L	P408463	
		Tetramethrin**	0.76	UJ	ng/L	P408463	CCV
		Trans-Nonachlor**	0.20	U	ng/L	P408463	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298698	EPA 8270E	Triclosan Methyl**	0.15	U	ng/L	P408463	
		Trifluralin	0.20	U	ng/L	P408463	
	EPA 8276	Chlordane	2.5	U	ng/L	P408463	
		Toxaphene	15	U	ng/L	P408463	
2298699	EPA 8270E	Acetochlor	0.39	I	ng/L	P408428	
		Alachlor	0.24	U	ng/L	P408428	
		Ametryn	0.57	U	ng/L	P408428	
		Atrazine	1.4		ng/L	P408428	
		Atrazine Desethyl	1.4	U	ng/L	P408428	
		Azinphos Methyl	1.9	U	ng/L	P408428	
		Azoxystrobin**	0.47	U	ng/L	P408428	
		Bromacil	0.47	U	ng/L	P408428	
		Butylate	0.38	U	ng/L	P408428	
		Caffeine**	19	I	ng/L	P408428	
		Carbophenothion	0.19	U	ng/L	P408428	
		Carfentrazone Ethyl**	0.094	U	ng/L	P408428	
		Chlorfenapyr**	0.17	U	ng/L	P408428	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P408428	
		Chlorpyrifos Methyl	0.047	U	ng/L	P408428	
		Coumaphos**	0.47	U	ng/L	P408428	
		Cyanazine	3.1	U	ng/L	P408428	
		Cyprodinil**	0.094	U	ng/L	P408428	
		Demeton	1.4	U	ng/L	P408428	
		Diazinon	0.12	U	ng/L	P408428	
		Difenoconazole**	0.57	U	ng/L	P408428	
		Dimethenamid**	0.094	U	ng/L	P408428	
		Dimethomorph**	0.17	U	ng/L	P408428	
		Disulfoton	0.47	U	ng/L	P408428	
		Dithiopyr**	0.17	U	ng/L	P408428	
		EPTC	1.2	U	ng/L	P408428	
		Ethion	0.14	U	ng/L	P408428	
		Ethoprop	0.094	U	ng/L	P408428	
		Etridiazole**	0.14	U	ng/L	P408428	
		Fenamiphos	0.47	U	ng/L	P408428	
		Fenbuconazole**	0.12	U	ng/L	P408428	
		Fipronil	0.24	U	ng/L	P408428	
		Fipronil Desulfinyl**	0.12	U	ng/L	P408428	
		Fipronil Sulfide	0.14	U	ng/L	P408428	
		Fipronil Sulfone	0.14	U	ng/L	P408428	
		Fluazifop-P-butyl**	0.094	U	ng/L	P408428	
		Fludioxonil**	0.12	U	ng/L	P408428	
		Flumioxazin**	1.7	U	ng/L	P408428	
		Flutolanil**	0.33	I	ng/L	P408428	
		Fluxapyroxad**	0.56		ng/L	P408428	
		Fonofos	0.19	U	ng/L	P408428	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298699	EPA 8270E	Hexazinone	1.0	I	ng/L	P408428	
		Imazalil**	0.71	U	ng/L	P408428	
		Iprodione**	0.57	U	ng/L	P408428	
		Loratadine**	0.094	U	ng/L	P408428	
		Malathion	0.33	U	ng/L	P408428	
		Metalaxyl	0.71	U	ng/L	P408428	
		Metolachlor	4.0		ng/L	P408428	
		Metribuzin	2.4	U	ng/L	P408428	
		Mevinphos	0.99	UJ	ng/L	P408428	LCS, MS, RPD
		Molinate	0.28	U	ng/L	P408428	
		Myclobutanil**	0.24	U	ng/L	P408428	
		Naled**	1.4	U	ng/L	P408428	
		Napropamide**	0.38	U	ng/L	P408428	
		Norflurazon	0.49	I	ng/L	P408428	
		Oxadiazon	0.28	U	ng/L	P408428	
		Oxyfluorfen**	0.14	U	ng/L	P408428	
		Parathion Ethyl	0.24	U	ng/L	P408428	
		Parathion Methyl	0.52	U	ng/L	P408428	
		Pendimethalin	0.94	U	ng/L	P408428	
		Phenytol**	3.3	U	ng/L	P408428	
		Phorate	0.50	U	ng/L	P408428	
		Prodiamine**	0.17	U	ng/L	P408428	
		Prometon	0.85	U	ng/L	P408428	
		Prometryn	0.19	U	ng/L	P408428	
		Pronamide**	0.14	U	ng/L	P408428	
		Propanil**	0.12	U	ng/L	P408428	
		Propargite**	1.4	U	ng/L	P408428	
		Propiconazole**	0.47	U	ng/L	P408428	
		Pyraflufen Ethyl**	0.24	U	ng/L	P408428	
		Pyridaben**	0.42	U	ng/L	P408428	
		Pyriproxyfen**	0.12	U	ng/L	P408428	
		Simazine	0.47	U	ng/L	P408428	
		Stirophos**	0.12	U	ng/L	P408428	
		Sulfentrazone**	0.47	U	ng/L	P408428	
		Tebuconazole**	0.83	I	ng/L	P408428	
		Terbufos	0.094	U	ng/L	P408428	
		Terbuthylazine	0.40	U	ng/L	P408428	
		Thiobencarb**	0.57	U	ng/L	P408428	
		Triadimefon**	0.24	U	ng/L	P408428	

Ref. Method and Comment:

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

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

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

Sample Location: Little Pine Barren Creek above CR99

Collection Date/Time: 01/10/2022 12:15

Field ID: G4NW0420

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298703	EPA 200.7 Rev. 4.4	Calcium	1.78		mg/L	P408482	
		Iron	1.26E+03		ug/L	P408482	
		Magnesium	1.69		mg/L	P408482	
		Potassium	1.1	I	mg/L	P408482	
		Sodium	2.5		mg/L	P408482	
		Strontium	16.5		ug/L	P408482	
		Tin	3.0	U	ug/L	P408482	
		Titanium	1.3	I	ug/L	P408482	
		Vanadium	2.0	U	ug/L	P408482	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P408482	
		Aluminum	77		ug/L	P408482	
		Antimony	0.050	U	ug/L	P408482	
		Arsenic	0.29		ug/L	P408482	
		Barium	57.4		ug/L	P408482	
		Beryllium	0.046		ug/L	P408482	
		Boron**	10.0		ug/L	P408482	
		Cadmium	0.020	U	ug/L	P408482	
		Chromium	0.40	U	ug/L	P408482	
		Cobalt	0.358		ug/L	P408482	
		Copper	0.40	U	ug/L	P408482	
		Lead	0.20	U	ug/L	P408482	
		Manganese	39.1		ug/L	P408482	
		Molybdenum	0.15	U	ug/L	P408482	
		Nickel	0.50	U	ug/L	P408482	
		Selenium	0.20	U	ug/L	P408482	
		Silver	0.010	U	ug/L	P408482	
		Thallium	0.10	U	ug/L	P408482	
	SM 2340B	Hardness	11.4		mg/L	P408482	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Little Pine Barren Creek below CR99A

Collection Date/Time: 01/10/2022 12:45

Field ID: G4NW0192

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298670	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P408357	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P409039	
		Sulfate	0.93		mg SO4/L	P409042	
		Color (true)**	40	A	PCU	P408372	
	SM 2320 B-2011	Total Alkalinity	5.7		mg CaCO3/L	P408539	
	SM 2540 C-2011	TDS	43		mg/L	P408873	
	SM 2540 D-2011	TSS	3	I	mg/L	P408773	
2298672	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P408542	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P408827	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.26		mg N/L	P408619	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.51		mg N/L	P408599	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P408379	MS
2298674	SM 5310 B-2011	Organic Carbon	2.1		mg C/L	P408584	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P408353	
2298702	EPA 200.7 Rev. 4.4	Calcium	1.85		mg/L	P408482	
		Iron	1.49E+03		ug/L	P408482	
		Magnesium	1.49		mg/L	P408482	
		Potassium	1.3		mg/L	P408482	
		Sodium	2.4		mg/L	P408482	
		Strontium	13.5		ug/L	P408482	
		Tin	3.0	U	ug/L	P408482	
	EPA 200.8 Rev. 5.4	Titanium	1.1	I	ug/L	P408482	
		Vanadium	2.0	U	ug/L	P408482	
		Zinc	5.0	U	ug/L	P408482	
		Aluminum	63		ug/L	P408482	
		Antimony	0.050	U	ug/L	P408482	
		Arsenic	0.32		ug/L	P408482	
		Barium	41.9		ug/L	P408482	
		Beryllium	0.026	I	ug/L	P408482	
		Boron**	10.7		ug/L	P408482	
		Cadmium	0.020	U	ug/L	P408482	
		Chromium	0.40	U	ug/L	P408482	
		Cobalt	0.253		ug/L	P408482	
		Copper	0.40	U	ug/L	P408482	
		Lead	0.20	U	ug/L	P408482	
		Manganese	42.6		ug/L	P408482	
		Molybdenum	0.15	U	ug/L	P408482	
		Nickel	0.50	U	ug/L	P408482	
		Selenium	0.20	U	ug/L	P408482	
		Silver	0.010	U	ug/L	P408482	
		Thallium	0.10	U	ug/L	P408482	
	SM 2340B	Hardness	10.8		mg/L	P408482	

Field ID: G4NW0192

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Brushy Creek upstream of Arthur Brown Rd. Collection Date/Time: 01/10/2022 13:30

Field ID: G5NW0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298704	EPA 200.7 Rev. 4.4	Calcium	1.87		mg/L	P408482	
		Iron	1.33E+03		ug/L	P408482	
		Magnesium	0.89		mg/L	P408482	
		Potassium	0.82	I	mg/L	P408482	
		Sodium	2.4		mg/L	P408482	
		Strontium	9.6		ug/L	P408482	
		Tin	3.0	U	ug/L	P408482	
		Titanium	6.1		ug/L	P408482	
		Vanadium	2.0	U	ug/L	P408482	
	EPA 200.8 Rev. 5.4	Zinc	7.5	I	ug/L	P408482	
		Aluminum	675		ug/L	P408482	
		Antimony	0.050	U	ug/L	P408482	
		Arsenic	0.47		ug/L	P408482	
		Barium	28.4		ug/L	P408482	
		Beryllium	0.090		ug/L	P408482	
		Boron**	10.9		ug/L	P408482	
		Cadmium	0.020	U	ug/L	P408482	
		Chromium	0.88	I	ug/L	P408482	
		Cobalt	0.764		ug/L	P408482	
		Copper	0.94		ug/L	P408482	
		Lead	0.87		ug/L	P408482	
		Manganese	66.3		ug/L	P408482	
		Molybdenum	0.15	U	ug/L	P408482	
		Nickel	0.73	I	ug/L	P408482	
		Selenium	0.20	U	ug/L	P408482	
		Silver	0.010	U	ug/L	P408482	
		Thallium	0.10	U	ug/L	P408482	
	SM 2340B	Hardness	8.3		mg/L	P408482	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 01/14/2022.

Sample Location: McDavid Creek 100 m upstream SR99

Collection Date/Time: 01/10/2022 14:05

Field ID: G5NW0150

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2298705	EPA 200.7 Rev. 4.4	Calcium	0.80		mg/L	P408482	
		Iron	630		ug/L	P408482	
		Magnesium	0.70		mg/L	P408482	
		Potassium	0.35	I	mg/L	P408482	
		Sodium	2.0		mg/L	P408482	
		Strontium	6.3	I	ug/L	P408482	
		Tin	3.0	U	ug/L	P408482	
		Titanium	5.4		ug/L	P408482	
		Vanadium	2.0	U	ug/L	P408482	
		Zinc	5.0	U	ug/L	P408482	
	EPA 200.8 Rev. 5.4	Aluminum	332		ug/L	P408482	
		Antimony	0.050	U	ug/L	P408482	
		Arsenic	0.18	I	ug/L	P408482	
		Barium	20.3		ug/L	P408482	
		Beryllium	0.055		ug/L	P408482	
		Boron**	7.8	I	ug/L	P408482	
		Cadmium	0.020	U	ug/L	P408482	
		Chromium	0.41	I	ug/L	P408482	
		Cobalt	0.339		ug/L	P408482	
		Copper	0.40	U	ug/L	P408482	
		Lead	0.25	I	ug/L	P408482	
		Manganese	23.6		ug/L	P408482	
		Molybdenum	0.15	U	ug/L	P408482	
		Nickel	0.50	U	ug/L	P408482	
		Selenium	0.20	U	ug/L	P408482	
		Silver	0.010	U	ug/L	P408482	
		Thallium	0.10	U	ug/L	P408482	
	SM 2340B	Hardness	4.9		mg/L	P408482	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P408357

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408482

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: P408482

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: P409039

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409042

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408827

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408619

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408599

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408379

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408353

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

Reference Method: EPA 8270E
Batch ID: P408428

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408428

Component	Result	Code	Units
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
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408428

Component	Result	Code	Units
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	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
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	0.18	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408428

Component	Result	Code	Units
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E

Batch ID: P408463

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408463

Component	Result	Code	Units
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408463

Component	Result	Code	Units
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	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	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: P408463

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: P408364

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P408364

Component	Result	Code	Units
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
MCPPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P408366

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

Reference Method: EPA 8321B

Batch ID: P408407

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: SM 2120 B-2011

Batch ID: P408372

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P408539

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P408873

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P408773

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P408542

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P408584

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408482

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	107		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	103		P	85 - 115
Sodium	104		P	85 - 115
Strontium	100		P	85 - 115
Tin	104		P	85 - 115
Titanium	105		P	85 - 115
Vanadium	104		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408482

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	98.3		P	85 - 115
Arsenic	101		P	85 - 115
Barium	105		P	85 - 115
Beryllium	104		P	85 - 115
Boron	96.3		P	85 - 115
Cadmium	97.9		P	85 - 115
Chromium	99.4		P	85 - 115
Cobalt	99.9		P	85 - 115
Copper	103		P	85 - 115
Lead	95.8		P	85 - 115
Manganese	98.6		P	85 - 115
Molybdenum	99.5		P	85 - 115
Nickel	102		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	99.0		P	85 - 115
Thallium	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409039

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409042

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408827

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P408619

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P408599

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P408379

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P408353

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

Reference Method: EPA 8270E

Batch ID: P408428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	96.2		P	70 - 121
Alachlor	85.4		P	68 - 119
Ametryn	102		P	64 - 139
Atrazine	87.9		P	76 - 120
Atrazine Desethyl	45.1		P	44 - 126
Azinphos Methyl	87.6		P	43 - 192
Azoxystrobin	98.7		P	36 - 224
Bromacil	70.8		P	52 - 121
Butylate	60.1		P	28 - 91.0
Caffeine	103		P	50 - 134
Carbophenothion	100		P	56 - 129
Carfentrazone Ethyl	95.0		P	60 - 141
Chlorfenapyr	82.6		P	56 - 115
Chlorpyrifos Ethyl	95.5		P	60 - 118
Chlorpyrifos Methyl	91.2		P	68 - 119
Coumaphos	155		P	18 - 250
Cyanazine	97.9		P	44 - 205
Cyprodinil	103		P	55 - 145
Demeton	69.0		P	41 - 118
Diazinon	98.5		P	70 - 123
Difenoconazole	78.1		P	49 - 204
Dimethenamid	76.8		P	64 - 115
Dimethomorph	101		P	12 - 219
Disulfoton	86.1		P	44 - 125
Dithiopyr	89.9		P	64 - 115
EPTC	55.0		P	28 - 86.0
Ethion	90.9		P	33 - 125
Ethoprop	72.2		P	64 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P408428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Etridiazole	57.9		P	34 - 91.0
Fenamiphos	96.3		P	59 - 126
Fenbuconazole	135		P	59 - 151
Fipronil	92.9		P	67 - 129
Fipronil Desulfinyl	90.5		P	65 - 127
Fipronil Sulfide	85.2		P	61 - 116
Fipronil Sulfone	81.1		P	55 - 117
Fluazifop-P-butyl	90.6		P	62 - 127
Fludioxonil	85.4		P	62 - 128
Flumioxazin	217		P	33 - 250
Flutolanil	72.5		P	56 - 127
Fluxapyroxad	125		P	45 - 128
Fonofos	85.3		P	62 - 111
Hexazinone	90.6		P	64 - 125
Imazalil	90.9		P	38 - 142
Iprodione	53.7		P	47 - 135
Loratadine	83.0		P	10 - 244
Malathion	93.6		P	61 - 139
Metalaxyl	81.7		P	57 - 127
Metolachlor	91.4		P	65 - 118
Metribuzin	87.3		P	47 - 161
Mevinphos	47.6		F	53 - 121
Molinate	69.3		P	42 - 96.0
Myclobutanil	84.3		P	55 - 128
Naled	87.5		P	10 - 98.0
Napropamide	86.6		P	49 - 121
Norflurazon	91.7		P	61 - 126
Oxadiazon	76.2		P	59 - 116
Oxyfluorfen	95.8		P	64 - 137
Parathion Ethyl	88.2		P	70 - 112
Parathion Methyl	105		P	76 - 133
Pendimethalin	73.5		P	52 - 117
Phenytoin	65.7		P	10 - 199
Phorate	52.7		P	48 - 121
Prodiamine	89.9		P	10 - 136
Prometon	113		P	61 - 121
Prometryn	92.0		P	66 - 127
Pronamide	89.7		P	75 - 121
Propanil	72.4		P	45 - 150
Propargite	116		P	42 - 208
Propiconazole	99.0		P	60 - 125
Pyraflufen Ethyl	106		P	70 - 138
Pyridaben	171		P	35 - 245
Pyriproxyfen	44.9		P	30 - 149
Simazine	82.3		P	72 - 125
Stirophos	89.3		P	29 - 164
Sulfentrazone	91.0		P	21 - 139
Tebuconazole	110		P	10 - 115
Terbufos	96.6		P	60 - 123
Terbuthylazine	86.1		P	72 - 115
Thiobencarb	88.4		P	31 - 139
Triadimefon	86.7		P	65 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P408463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	58.8		P	10 - 93.0
Alpha-BHC	94.8		P	75 - 106
Alpha-Chlordane	84.4		P	50 - 109
Beta-BHC	109		P	65 - 135
Beta-Cyfluthrin	74.1		P	23 - 167
Bifenthrin	57.6		P	11 - 123
Chlorothalonil	84.8		P	26 - 182
Cis-Nonachlor	76.9		P	40 - 111
Cypermethrin	83.3		P	25 - 155
Dacthal	98.1		P	73 - 112
DDD-p,p'	85.2		P	47 - 108
DDE-p,p'	77.6		P	48 - 107
DDT-p,p'	75.5		P	49 - 111
Delta-BHC	112		P	68 - 143
Deltamethrin	84.1		P	16 - 176
Dichlobenil	96.5		P	32 - 113
Dicofol	77.3		P	50 - 108
Dieldrin	84.1		P	56 - 110
Endosulfan I	84.3		P	60 - 105
Endosulfan II	89.0		P	50 - 120
Endosulfan Sulfate	95.0		P	55 - 121
Endrin	84.3		P	35 - 117
Endrin Aldehyde	84.9		P	36 - 116
Endrin Ketone	123		P	56 - 130
Esfenvalerate	66.6		P	10 - 179
Ethalfuralin	78.3		P	49 - 99.0
Fenpropathrin	76.0		P	35 - 119
Gamma-BHC	101		P	72 - 115
Gamma-Chlordane	79.1		P	45 - 107
Heptachlor	72.6		P	41 - 100
Heptachlor Epoxide	90.8		P	58 - 106
Hexachlorobenzene	78.2		P	39 - 100
Kepone	134		P	10 - 191
Lambda-Cyhalothrin	68.6		P	10 - 186
Methoprene	47.0		P	10 - 129
Methoxychlor	94.9		P	61 - 111
MGK-264	85.8		P	20 - 123
Mirex	53.1		P	10 - 182
Oxychlordane	78.1		P	39 - 110
Permethrin	75.2		P	26 - 152
Phenothrin	47.3		P	10 - 109
Piperonyl Butoxide	96.1		P	27 - 142
Prallethrin	67.7		P	14 - 109
Tau-Fluvalinate	65.0		P	16 - 134
Tetramethrin	83.6		P	10 - 125
Trans-Nonachlor	78.7		P	45 - 107
Triclosan Methyl	87.6		P	60 - 110
Trifluralin	77.6		P	49 - 98.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P408463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	78.0		P	61 - 118
Toxaphene	67.6		P	51 - 122

Reference Method: EPA 8321B

Batch ID: P408364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	83.0		P	40 - 150
Acetaminophen	102		P	30 - 150
Acetamiprid	79.8		P	40 - 150
Afidopyropen	50.0		P	40 - 150
Bentazon	84.0		P	30 - 150
Benzovindiflupyr	81.4		P	40 - 150
Carbamazepine	82.0		P	40 - 150
Clothianidin	87.5		P	40 - 150
Dinotefuran	95.9		P	40 - 150
Diuron	101		P	40 - 150
Fenuron	92.9		P	40 - 150
Fluridone	87.7		P	40 - 150
Hydrocodone	90.2		P	40 - 150
Ibuprofen	131		P	40 - 150
Imazapyr	96.9		P	40 - 150
Imidacloprid	85.2		P	40 - 150
Linuron	85.4		P	40 - 150
Mandestrobin	95.3		P	40 - 150
MCPP	106		P	40 - 150
Naproxen	88.4		P	40 - 150
Primidone	91.0		P	40 - 150
Pyraclostrobin	83.6		P	40 - 150
Silvex	82.0		P	40 - 150
Thiamethoxam	92.1		P	40 - 150
Tolfenpyrad	43.4		P	30 - 150
Triclopyr	96.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408366

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.4		P	40 - 150
AMPA	95.3		P	40 - 160
Endothall	83.6		P	40 - 150
Glufosinate	99.1		P	40 - 160
Glyphosate	91.2		P	40 - 160
Sucralose	96.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408407

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	43.6		P	40 - 150
Aldicarb	63.5		P	30 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P408407

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldicarb Sulfone	102		P	40 - 150
Aldicarb Sulfoxide	107		P	40 - 150
Carbaryl	90.3		P	40 - 150
Carbofuran	108		P	40 - 150
Methiocarb	94.3		P	40 - 150
Methomyl	101		P	40 - 150
Oxamyl	100		P	40 - 150
Propoxur	103		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P408372

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P408539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.7		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P408542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P408584

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P408482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298497	Iron	109	108	P/P	80 - 120
2298497	Magnesium	108		P	80 - 120
2298497	Potassium	106		P	80 - 120
2298497	Sodium	106		P	80 - 120
2298497	Strontium	103	102	P/P	80 - 120
2298497	Tin	102	102	P/P	80 - 120
2298497	Titanium	105	103	P/P	80 - 120
2298497	Vanadium	105	104	P/P	80 - 120
2298497	Zinc	104	103	P/P	80 - 120
2298617	Iron	107		P	80 - 120
2298617	Magnesium	101		P	80 - 120
2298617	Potassium	103		P	80 - 120
2298617	Sodium	102		P	80 - 120
2298617	Strontium	99.6		P	80 - 120
2298617	Tin	97.9		P	80 - 120
2298617	Titanium	102		P	80 - 120
2298617	Vanadium	102		P	80 - 120
2298617	Zinc	99.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P408482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298497	Aluminum	101	99.8	P/P	80 - 120
2298497	Antimony	102	102	P/P	80 - 120
2298497	Arsenic	105	103	P/P	80 - 120
2298497	Barium	106	105	P/P	80 - 120
2298497	Beryllium	103	100	P/P	80 - 120
2298497	Boron	97.5	97.0	P/P	80 - 120
2298497	Cadmium	101	99.3	P/P	80 - 120
2298497	Chromium	105	104	P/P	80 - 120
2298497	Cobalt	103	102	P/P	80 - 120
2298497	Copper	103	102	P/P	80 - 120
2298497	Lead	99.2	98.9	P/P	80 - 120
2298497	Manganese	102	102	P/P	80 - 120
2298497	Molybdenum	103	104	P/P	80 - 120
2298497	Nickel	106	105	P/P	80 - 120
2298497	Selenium	103	102	P/P	80 - 120
2298497	Silver	100	98.7	P/P	80 - 120
2298497	Thallium	113	112	P/P	80 - 120
2298617	Aluminum	102		P	80 - 120
2298617	Antimony	104		P	80 - 120
2298617	Arsenic	107		P	80 - 120
2298617	Barium	107		P	80 - 120
2298617	Beryllium	106		P	80 - 120
2298617	Boron	102		P	80 - 120
2298617	Cadmium	102		P	80 - 120
2298617	Chromium	105		P	80 - 120
2298617	Cobalt	103		P	80 - 120
2298617	Copper	102		P	80 - 120
2298617	Lead	100		P	80 - 120
2298617	Manganese	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P408482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298617	Molybdenum	108		P	80 - 120
2298617	Nickel	104		P	80 - 120
2298617	Selenium	103		P	80 - 120
2298617	Silver	99.0		P	80 - 120
2298617	Thallium	111		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P409039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298611	Chloride	105		P	90 - 110
2298783	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P409042

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298611	Sulfate	100		P	90 - 110
2298783	Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P408827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298606	Ammonia-N	97.0	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P408619

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298926	Kjeldahl Nitrogen	105	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P408599

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298593	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P408379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298780	Total-P	111	112	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P408353

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298616	O-Phosphate-P	98.6	99.1	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P408428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298468	Acetochlor	96.4	88.6	P/P	65 - 124
2298468	Alachlor	101	82.5	P/P	61 - 121
2298468	Ametryn	107	98.4	P/P	46 - 169
2298468	Atrazine	81.3	79.0	P/P	68 - 133
2298468	Atrazine Desethyl	36.9	36.7	P/P	26 - 133
2298468	Azinphos Methyl	83.8	71.2	P/P	10 - 228
2298468	Azoxystrobin	98.6	94.8	P/P	12 - 242
2298468	Butylate	57.6	62.2	P/P	14 - 94.0
2298468	Caffeine	149	113	P/P	10 - 226
2298468	Carbophenothion	78.2	81.8	P/P	49 - 122
2298468	Carfentrazone Ethyl	87.1	84.4	P/P	53 - 138
2298468	Chlorfenapyr	68.3	75.0	P/P	50 - 150
2298468	Chlorpyrifos Ethyl	72.8	71.9	P/P	52 - 122
2298468	Chlorpyrifos Methyl	76.9	72.0	P/P	66 - 117
2298468	Coumaphos	133	137	P/P	50 - 220
2298468	Cyanazine	99.7	94.8	P/P	27 - 211
2298468	Cyprodinil	88.7	97.1	P/P	50 - 150
2298468	Demeton	64.7	62.2	P/P	46 - 132
2298468	Diazinon	97.2	98.5	P/P	69 - 131
2298468	Difenoconazole	67.9	66.6	P/P	34 - 231
2298468	Dimethenamid	75.9	72.5	P/P	55 - 118
2298468	Dimethomorph	86.0	80.2	P/P	50 - 150
2298468	Disulfoton	80.1	73.0	P/P	38 - 141
2298468	Dithiopyr	90.9	88.5	P/P	49 - 123
2298468	EPTC	47.7	58.6	P/P	18 - 85.0
2298468	Ethion	79.7	79.6	P/P	10 - 131
2298468	Ethoprop	77.1	69.0	P/P	65 - 129
2298468	Etridiazole	57.4	61.5	P/P	50 - 150
2298468	Fenamiphos	88.9	84.3	P/P	34 - 130
2298468	Fenbuconazole	127	119	P/P	57 - 160
2298468	Fipronil	93.9	91.6	P/P	62 - 132
2298468	Fipronil Desulfinyl	87.0	85.4	P/P	57 - 131
2298468	Fipronil Sulfide	74.8	74.1	P/P	48 - 122
2298468	Fipronil Sulfone	72.9	73.2	P/P	44 - 122
2298468	Fluazifop-P-butyl	89.8	92.6	P/P	54 - 133
2298468	Fludioxonil	78.7	75.3	P/P	58 - 127
2298468	Flumioxazin	202	201	P/P	33 - 300
2298468	Flutolanil	66.5	67.9	P/P	42 - 130
2298468	Fluxapyroxad	122	112	P/P	23 - 141
2298468	Fonofos	75.3	69.8	P/P	58 - 119
2298468	Hexazinone	85.7	81.2	P/P	66 - 129
2298468	Imazalil	73.9	80.8	P/P	10 - 211
2298468	Iprodione	43.5	39.5	P/P	38 - 140
2298468	Loratadine	76.3	65.7	P/P	50 - 150
2298468	Malathion	83.8	93.7	P/P	57 - 138
2298468	Metolachlor	81.9	85.7	P/P	55 - 122
2298468	Metribuzin	80.3	77.7	P/P	38 - 187
2298468	Mevinphos	57.4	43.9	P/F	54 - 134
2298468	Molinate	65.3	68.9	P/P	41 - 97.0
2298468	Myclobutanil	82.8	78.5	P/P	56 - 125
2298468	Naled	78.4	84.9	P/P	10 - 108
2298468	Napropamide	78.3	79.1	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P408428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298468	Oxadiazon	71.9	72.6	P/P	40 - 119
2298468	Oxyfluorfen	102	103	P/P	61 - 153
2298468	Parathion Ethyl	80.7	79.2	P/P	59 - 130
2298468	Parathion Methyl	103	90.5	P/P	65 - 155
2298468	Pendimethalin	67.0	63.3	P/P	49 - 138
2298468	Phenytol	70.2	63.0	P/P	50 - 200
2298468	Phorate	57.2	57.3	P/P	42 - 140
2298468	Prodiamine	111	104	P/P	10 - 155
2298468	Prometon	116	110	P/P	56 - 129
2298468	Prometryn	93.2	88.4	P/P	55 - 134
2298468	Pronamide	96.3	86.2	P/P	66 - 137
2298468	Propanil	76.4	73.8	P/P	50 - 150
2298468	Propargite	116	116	P/P	50 - 200
2298468	Propiconazole	94.3	91.0	P/P	36 - 150
2298468	Pyraflufen Ethyl	99.4	99.0	P/P	50 - 150
2298468	Pyriproxyfen	39.8	37.7	P/P	10 - 165
2298468	Stirophos	70.4	72.0	P/P	50 - 150
2298468	Sulfentrazone	91.3	80.6	P/P	34 - 140
2298468	Tebuconazole	102	97.3	P/P	10 - 112
2298468	Terbufos	91.5	90.5	P/P	59 - 138
2298468	Terbutylazine	81.9	84.1	P/P	68 - 119
2298468	Thiobencarb	80.9	80.4	P/P	50 - 150
2298468	Triadimefon	69.0	70.1	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P408463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298524	Aldrin	60.8		P	10 - 93.0
2298524	Aldrin	56.9		P	10 - 89.0
2298524	Alpha-BHC	93.2		P	75 - 106
2298524	Alpha-BHC	101		P	71 - 105
2298524	Alpha-Chlordane	76.2		P	50 - 109
2298524	Alpha-Chlordane	69.5		P	43 - 107
2298524	Beta-BHC	106		P	65 - 135
2298524	Beta-BHC	79.9		P	57 - 152
2298524	Beta-Cyfluthrin	94.0		P	23 - 167
2298524	Beta-Cyfluthrin	71.4		P	29 - 186
2298524	Bifenthrin	75.1		P	11 - 123
2298524	Bifenthrin	70.5		P	19 - 119
2298524	Chlorothalonil	76.1		P	26 - 182
2298524	Chlorothalonil	76.6		P	10 - 245
2298524	Cis-Nonachlor	64.3		P	40 - 111
2298524	Cis-Nonachlor	55.9		P	36 - 110
2298524	Cypermethrin	99.4		P	25 - 155
2298524	Cypermethrin	80.0		P	24 - 169
2298524	Dacthal	87.2		P	73 - 112
2298524	Dacthal	78.9		P	62 - 115
2298524	DDD-p,p'	78.5		P	47 - 108
2298524	DDD-p,p'	67.7		P	36 - 109
2298524	DDE-p,p'	69.7		P	48 - 107
2298524	DDE-p,p'	69.1		P	30 - 114

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P408463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298524	DDT-p,p'	76.6		P	49 - 111
2298524	DDT-p,p'	71.9		P	42 - 108
2298524	Delta-BHC	105		P	68 - 143
2298524	Delta-BHC	92.2		P	60 - 164
2298524	Deltamethrin	114		P	16 - 176
2298524	Deltamethrin	86.4		P	10 - 210
2298524	Dichlobenil	77.2		P	32 - 113
2298524	Dichlobenil	51.5		P	23 - 108
2298524	Dicofol	81.5		P	50 - 108
2298524	Dicofol	74.8		P	44 - 109
2298524	Dieldrin	71.4		P	56 - 110
2298524	Dieldrin	63.3		P	37 - 119
2298524	Endosulfan I	74.3		P	60 - 105
2298524	Endosulfan I	69.2		P	52 - 105
2298524	Endosulfan II	72.2		P	50 - 120
2298524	Endosulfan II	56.2		P	35 - 127
2298524	Endosulfan Sulfate	80.2		P	55 - 121
2298524	Endosulfan Sulfate	54.7		P	39 - 130
2298524	Endrin	76.1		P	35 - 117
2298524	Endrin	66.9		P	30 - 116
2298524	Endrin Aldehyde	75.8		P	36 - 116
2298524	Endrin Aldehyde	55.2		P	20 - 110
2298524	Endrin Ketone	103		P	56 - 130
2298524	Endrin Ketone	76.7		P	48 - 134
2298524	Esfenvalerate	84.8		P	10 - 179
2298524	Esfenvalerate	66.0		P	10 - 199
2298524	Ethalfuralin	79.7		P	49 - 99.0
2298524	Ethalfuralin	75.3		P	48 - 95.0
2298524	Fenpropathrin	88.6		P	35 - 119
2298524	Fenpropathrin	76.3		P	37 - 121
2298524	Gamma-BHC	95.7		P	72 - 115
2298524	Gamma-BHC	92.1		P	61 - 126
2298524	Gamma-Chlordane	74.6		P	45 - 107
2298524	Gamma-Chlordane	67.5		P	39 - 105
2298524	Heptachlor	68.2		P	41 - 100
2298524	Heptachlor	63.3		P	38 - 96.0
2298524	Heptachlor Epoxide	82.3		P	58 - 106
2298524	Heptachlor Epoxide	70.4		P	42 - 114
2298524	Hexachlorobenzene	78.5		P	39 - 100
2298524	Hexachlorobenzene	73.7		P	39 - 93.0
2298524	Kepone	106		P	10 - 191
2298524	Kepone	75.1		P	10 - 215
2298524	Lambda-Cyhalothrin	98.5		P	10 - 186
2298524	Lambda-Cyhalothrin	90.8		P	10 - 204
2298524	Methoprene	65.6		P	10 - 129
2298524	Methoprene	67.2		P	17 - 108
2298524	Methoxychlor	104		P	61 - 111
2298524	Methoxychlor	93.3		P	56 - 115
2298524	MGK-264	82.8		P	20 - 123
2298524	MGK-264	76.2		P	35 - 120
2298524	Mirex	55.5		P	10 - 182
2298524	Mirex	53.9		P	10 - 178

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P408463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298524	Oxychlordane	79.7		P	39 - 110
2298524	Oxychlordane	75.3		P	47 - 91.0
2298524	Permethrin	97.2		P	26 - 152
2298524	Permethrin	87.8		P	27 - 170
2298524	Phenothrin	78.7		P	10 - 109
2298524	Phenothrin	77.0		P	10 - 133
2298524	Piperonyl Butoxide	101		P	27 - 142
2298524	Piperonyl Butoxide	91.8		P	23 - 150
2298524	Prallethrin	70.4		P	14 - 109
2298524	Prallethrin	63.7		P	21 - 113
2298524	Tau-Fluvalinate	84.8		P	16 - 134
2298524	Tau-Fluvalinate	62.0		P	16 - 158
2298524	Tetramethrin	103		P	10 - 125
2298524	Tetramethrin	91.3		P	22 - 132
2298524	Trans-Nonachlor	79.0		P	45 - 107
2298524	Trans-Nonachlor	64.8		P	43 - 102
2298524	Triclosan Methyl	73.2		P	60 - 110
2298524	Triclosan Methyl	71.3		P	49 - 109
2298524	Trifluralin	79.6		P	49 - 98.0
2298524	Trifluralin	75.3		P	48 - 93.0

Reference Method: EPA 8276

Batch ID: P408463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299619	Chlordane	77.8	68.4	P/P	55 - 128
2299619	Toxaphene	75.2	86.9	P/P	29 - 164

Reference Method: EPA 8321B

Batch ID: P408364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298464	2,4-D	101	115	P/P	40 - 150
2298464	2,4,5-T	93.0	122	P/P	40 - 150
2298464	Acetaminophen	97.0	104	P/P	30 - 150
2298464	Acetamiprid	96.3	98.8	P/P	40 - 150
2298464	Afidopyropen	81.4	83.5	P/P	40 - 150
2298464	Bentazon	72.5	86.2	P/P	30 - 150
2298464	Benzovindiflupyr	85.5	105	P/P	40 - 150
2298464	Carbamazepine	86.4	114	P/P	40 - 150
2298464	Clothianidin	126	115	P/P	40 - 150
2298464	Dinotefuran	107	118	P/P	40 - 150
2298464	Diuron	97.4	121	P/P	40 - 150
2298464	Fenuron	98.2	103	P/P	40 - 150
2298464	Fluridone	96.6	108	P/P	40 - 150
2298464	Hydrocodone	101	101	P/P	40 - 150
2298464	Ibuprofen	69.3	154	P/F	40 - 150
2298464	Imazapyr	113	108	P/P	40 - 150
2298464	Linuron	79.8	123	P/P	40 - 150
2298464	Mandestrobin	103	104	P/P	40 - 150
2298464	MCP	95.5	108	P/P	40 - 150
2298464	Naproxen	110	142	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P408364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298464	Primidone	122	120	P/P	40 - 150
2298464	Pyraclostrobin	100	107	P/P	40 - 150
2298464	Silvex	87.5	117	P/P	40 - 150
2298464	Thiamethoxam	111	123	P/P	40 - 150
2298464	Tolfenpyrad	56.6	66.2	P/P	30 - 150
2298464	Triclopyr	102	96.4	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408366

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298464	Acesulfame K	128	140	P/P	40 - 150
2298464	AMPA	97.0	93.1	P/P	40 - 160
2298464	Endothall	124	135	P/P	40 - 150
2298464	Glufosinate	108	101	P/P	40 - 160
2298464	Glyphosate	93.9	93.7	P/P	40 - 160
2298464	Sucralose	102	109	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298463	3-Hydroxycarbofuran	85.4	90.9	P/P	40 - 150
2298463	Aldicarb	84.3	66.9	P/P	30 - 150
2298463	Aldicarb Sulfone	82.9	94.5	P/P	40 - 150
2298463	Aldicarb Sulfoxide	49.8	55.2	P/P	40 - 150
2298463	Carbaryl	70.4	66.4	P/P	40 - 150
2298463	Carbofuran	102	95.7	P/P	40 - 150
2298463	Methiocarb	81.1	101	P/P	40 - 150
2298463	Methomyl	84.1	85.6	P/P	40 - 150
2298463	Oxamyl	43.9	55.6	P/P	40 - 150
2298463	Propoxur	81.1	97.9	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P408542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298602	Fluoride	99.0	99.7	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P408584

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2298654	Organic Carbon	101	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P408357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298591	Turbidity	0.692	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P408482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298497	Calcium	0.704	Spike	P	0 - 20
2298497	Iron	0.193	Spike	P	0 - 20
2298497	Magnesium	0.763	Spike	P	0 - 20
2298497	Potassium	0.278	Spike	P	0 - 20
2298497	Sodium	0.0437	Spike	P	0 - 20
2298497	Strontium	0.986	Spike	P	0 - 20
2298497	Tin	0.102	Spike	P	0 - 20
2298497	Titanium	1.37	Spike	P	0 - 20
2298497	Vanadium	0.983	Spike	P	0 - 20
2298497	Zinc	1.37	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P408482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298497	Aluminum	1.08	Spike	P	0 - 20
2298497	Antimony	0.0631	Spike	P	0 - 20
2298497	Arsenic	1.57	Spike	P	0 - 20
2298497	Barium	0.721	Spike	P	0 - 20
2298497	Beryllium	2.56	Spike	P	0 - 20
2298497	Boron	0.397	Spike	P	0 - 20
2298497	Cadmium	1.37	Spike	P	0 - 20
2298497	Chromium	0.515	Spike	P	0 - 20
2298497	Cobalt	0.635	Spike	P	0 - 20
2298497	Copper	0.345	Spike	P	0 - 20
2298497	Lead	0.324	Spike	P	0 - 20
2298497	Manganese	0.108	Spike	P	0 - 20
2298497	Molybdenum	0.572	Spike	P	0 - 20
2298497	Nickel	0.683	Spike	P	0 - 20
2298497	Selenium	0.476	Spike	P	0 - 20
2298497	Silver	1.62	Spike	P	0 - 20
2298497	Thallium	0.344	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298611	Chloride	2.18	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298611	Sulfate	1.12	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P408827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298606	Ammonia-N	0.905	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298926	Kjeldahl Nitrogen	0.482	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408599

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298593	NO2NO3-N	0.232	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298780	Total-P	0.731	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408353

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298616	O-Phosphate-P	0.360	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P408428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298468	Acetochlor	8.41	Spike	P	0 - 24
2298468	Alachlor	20.2	Spike	P	0 - 24
2298468	Ametryn	8.87	Spike	P	0 - 27
2298468	Atrazine	2.16	Spike	P	0 - 29
2298468	Atrazine Desethyl	0.488	Spike	P	0 - 30
2298468	Azinphos Methyl	16.3	Spike	P	0 - 50
2298468	Azoxystrobin	3.91	Spike	P	0 - 32
2298468	Bromacil	3.07	Spike	P	0 - 30
2298468	Butylate	7.60	Spike	P	0 - 47

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P408428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298468	Caffeine	27.7	Spike	P	0 - 60
2298468	Carbophenothion	4.48	Spike	P	0 - 24
2298468	Carfentrazone Ethyl	3.18	Spike	P	0 - 26
2298468	Chlorfenapyr	9.34	Spike	P	0 - 30
2298468	Chlorpyrifos Ethyl	1.20	Spike	P	0 - 27
2298468	Chlorpyrifos Methyl	6.66	Spike	P	0 - 22
2298468	Coumaphos	2.81	Spike	P	0 - 30
2298468	Cyanazine	5.08	Spike	P	0 - 32
2298468	Cyprodinil	9.05	Spike	P	0 - 30
2298468	Demeton	3.86	Spike	P	0 - 25
2298468	Diazinon	1.36	Spike	P	0 - 24
2298468	Difenoconazole	1.88	Spike	P	0 - 25
2298468	Dimethenamid	4.49	Spike	P	0 - 30
2298468	Dimethomorph	7.04	Spike	P	0 - 30
2298468	Disulfoton	9.27	Spike	P	0 - 26
2298468	Dithiopyr	2.68	Spike	P	0 - 22
2298468	EPTC	20.4	Spike	P	0 - 38
2298468	Ethion	0.125	Spike	P	0 - 47
2298468	Ethoprop	11.2	Spike	P	0 - 23
2298468	Etridiazole	6.88	Spike	P	0 - 30
2298468	Fenamiphos	5.30	Spike	P	0 - 34
2298468	Fenbuconazole	5.87	Spike	P	0 - 37
2298468	Fipronil	2.55	Spike	P	0 - 23
2298468	Fipronil Desulfinyl	1.88	Spike	P	0 - 26
2298468	Fipronil Sulfide	0.873	Spike	P	0 - 23
2298468	Fipronil Sulfone	0.481	Spike	P	0 - 24
2298468	Fluazifop-P-butyl	3.15	Spike	P	0 - 24
2298468	Fludioxonil	4.44	Spike	P	0 - 26
2298468	Flumioxazin	0.692	Spike	P	0 - 37
2298468	Flutolanil	2.06	Spike	P	0 - 26
2298468	Fluxapyroxad	8.48	Spike	P	0 - 34
2298468	Fonofos	7.63	Spike	P	0 - 22
2298468	Hexazinone	5.43	Spike	P	0 - 21
2298468	Imazalil	8.89	Spike	P	0 - 65
2298468	Iprodione	9.64	Spike	P	0 - 33
2298468	Loratadine	15.0	Spike	P	0 - 30
2298468	Malathion	11.1	Spike	P	0 - 26
2298468	Metalaxyl	3.52	Spike	P	0 - 38
2298468	Metolachlor	4.64	Spike	P	0 - 36
2298468	Metribuzin	3.28	Spike	P	0 - 29
2298468	Mevinphos	26.7	Spike	F	0 - 26
2298468	Molinate	5.40	Spike	P	0 - 27
2298468	Myclobutanil	5.35	Spike	P	0 - 21
2298468	Naled	7.91	Spike	P	0 - 26
2298468	Napropamide	1.04	Spike	P	0 - 30
2298468	Norflurazon	17.6	Spike	P	0 - 24
2298468	Oxadiazon	0.862	Spike	P	0 - 23
2298468	Oxyfluorfen	0.447	Spike	P	0 - 24
2298468	Parathion Ethyl	1.86	Spike	P	0 - 23
2298468	Parathion Methyl	12.7	Spike	P	0 - 23
2298468	Pendimethalin	5.59	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P408428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298468	Phenytoin	10.7	Spike	P	0 - 30
2298468	Phorate	0.161	Spike	P	0 - 27
2298468	Prodiamine	6.35	Spike	P	0 - 52
2298468	Prometon	5.52	Spike	P	0 - 31
2298468	Prometryn	5.39	Spike	P	0 - 24
2298468	Pronamide	11.0	Spike	P	0 - 26
2298468	Propanil	3.47	Spike	P	0 - 30
2298468	Propargite	0.118	Spike	P	0 - 30
2298468	Propiconazole	3.53	Spike	P	0 - 31
2298468	Pyraflufen Ethyl	0.406	Spike	P	0 - 30
2298468	Pyridaben	8.44	Spike	P	0 - 30
2298468	Pyriproxyfen	5.48	Spike	P	0 - 50
2298468	Simazine	3.98	Spike	P	0 - 25
2298468	Stirophos	2.28	Spike	P	0 - 30
2298468	Sulfentrazone	12.5	Spike	P	0 - 33
2298468	Tebuconazole	4.73	Spike	P	0 - 43
2298468	Terbufos	1.05	Spike	P	0 - 22
2298468	Terbutylazine	2.61	Spike	P	0 - 24
2298468	Thiobencarb	0.681	Spike	P	0 - 30
2298468	Triadimefon	1.55	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P408463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298524	Aldrin	6.74	Spike	P	0 - 37
2298524	Alpha-BHC	7.74	Spike	P	0 - 16
2298524	Alpha-Chlordane	9.18	Spike	P	0 - 28
2298524	Beta-BHC	28.3	Spike	P	0 - 32
2298524	Beta-Cyfluthrin	27.3	Spike	P	0 - 41
2298524	Bifenthrin	6.26	Spike	P	0 - 36
2298524	Chlorothalonil	0.639	Spike	P	0 - 54
2298524	Cis-Nonachlor	14.1	Spike	P	0 - 33
2298524	Cypermethrin	21.7	Spike	P	0 - 38
2298524	Dacthal	9.92	Spike	P	0 - 23
2298524	DDD-p,p'	14.9	Spike	P	0 - 35
2298524	DDE-p,p'	0.842	Spike	P	0 - 27
2298524	DDT-p,p'	6.37	Spike	P	0 - 31
2298524	Delta-BHC	13.4	Spike	P	0 - 30
2298524	Deltamethrin	27.6	Spike	P	0 - 76
2298524	Dichlobenil	39.8	Spike	F	0 - 33
2298524	Dicofol	8.65	Spike	P	0 - 24
2298524	Dieldrin	11.3	Spike	P	0 - 35
2298524	Endosulfan I	7.08	Spike	P	0 - 25
2298524	Endosulfan II	24.9	Spike	P	0 - 31
2298524	Endosulfan Sulfate	37.8	Spike	P	0 - 38
2298524	Endrin	12.9	Spike	P	0 - 53
2298524	Endrin Aldehyde	31.5	Spike	P	0 - 81
2298524	Endrin Ketone	29.5	Spike	P	0 - 33
2298524	Esfenvalerate	24.9	Spike	P	0 - 46

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P408463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298524	Ethalfuralin	5.69	Spike	P	0 - 22
2298524	Fenpropathrin	14.9	Spike	P	0 - 29
2298524	Gamma-BHC	3.81	Spike	P	0 - 17
2298524	Gamma-Chlordane	9.98	Spike	P	0 - 28
2298524	Heptachlor	7.41	Spike	P	0 - 28
2298524	Heptachlor Epoxide	15.6	Spike	P	0 - 23
2298524	Hexachlorobenzene	6.28	Spike	P	0 - 22
2298524	Kepone	33.8	Spike	P	0 - 61
2298524	Lambda-Cyhalothrin	8.17	Spike	P	0 - 52
2298524	Methoprene	2.46	Spike	P	0 - 38
2298524	Methoxychlor	11.1	Spike	P	0 - 29
2298524	MGK-264	8.29	Spike	P	0 - 41
2298524	Mirex	2.77	Spike	P	0 - 39
2298524	Oxychlordane	5.71	Spike	P	0 - 33
2298524	Permethrin	10.1	Spike	P	0 - 39
2298524	Phenothrin	2.19	Spike	P	0 - 52
2298524	Piperonyl Butoxide	9.33	Spike	P	0 - 91
2298524	Prallethrin	9.99	Spike	P	0 - 34
2298524	Tau-Fluvalinate	31.1	Spike	P	0 - 41
2298524	Tetramethrin	12.0	Spike	P	0 - 43
2298524	Trans-Nonachlor	19.8	Spike	P	0 - 31
2298524	Triclosan Methyl	2.68	Spike	P	0 - 24
2298524	Trifluralin	5.55	Spike	P	0 - 23

Reference Method: EPA 8276

Batch ID: P408463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299619	Chlordane	11.0	Spike	P	0 - 30
2299619	Toxaphene	14.5	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P408364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298464	2,4-D	12.3	Spike	P	0 - 30
2298464	2,4,5-T	26.8	Spike	P	0 - 30
2298464	Acetaminophen	6.65	Spike	P	0 - 30
2298464	Acetamiprid	2.61	Spike	P	0 - 30
2298464	Afidopyropen	2.55	Spike	P	0 - 30
2298464	Bentazon	17.3	Spike	P	0 - 30
2298464	Benzovindiflupyr	20.6	Spike	P	0 - 30
2298464	Carbamazepine	27.9	Spike	P	0 - 30
2298464	Clothianidin	6.54	Spike	P	0 - 30
2298464	Dinotefuran	10.2	Spike	P	0 - 30
2298464	Diuron	20.3	Spike	P	0 - 30
2298464	Fenuron	4.90	Spike	P	0 - 30
2298464	Fluridone	11.3	Spike	P	0 - 30
2298464	Hydrocodone	0.0362	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P408364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298464	Ibuprofen	76.0	Spike	F	0 - 30
2298464	Imazapyr	4.08	Spike	P	0 - 30
2298464	Imidacloprid	6.97	Spike	P	0 - 30
2298464	Linuron	42.5	Spike	F	0 - 30
2298464	Mandestrobin	1.02	Spike	P	0 - 30
2298464	MCPPP	12.2	Spike	P	0 - 30
2298464	Naproxen	25.6	Spike	P	0 - 30
2298464	Primidone	1.36	Spike	P	0 - 30
2298464	Pyraclostrobin	6.72	Spike	P	0 - 30
2298464	Silvex	28.8	Spike	P	0 - 30
2298464	Thiamethoxam	6.13	Spike	P	0 - 30
2298464	Tolfenpyrad	15.7	Spike	P	0 - 30
2298464	Triclopyr	5.69	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P408366

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298464	Acesulfame K	9.50	Spike	P	0 - 30
2298464	AMPA	4.14	Spike	P	0 - 30
2298464	Endothall	7.94	Spike	P	0 - 30
2298464	Glufosinate	6.24	Spike	P	0 - 30
2298464	Glyphosate	0.124	Spike	P	0 - 30
2298464	Sucralose	5.95	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P408407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298463	3-Hydroxycarbofuran	6.17	Spike	P	0 - 30
2298463	Aldicarb	22.9	Spike	P	0 - 30
2298463	Aldicarb Sulfone	12.1	Spike	P	0 - 30
2298463	Aldicarb Sulfoxide	10.3	Spike	P	0 - 30
2298463	Carbaryl	5.84	Spike	P	0 - 30
2298463	Carbofuran	6.11	Spike	P	0 - 30
2298463	Methiocarb	21.5	Spike	P	0 - 30
2298463	Methomyl	1.73	Spike	P	0 - 30
2298463	Oxamyl	12.6	Spike	P	0 - 30
2298463	Propoxur	18.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P408372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298670	Color (true)	0.560	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P408539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298602	Total Alkalinity	1.59	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P408873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299081	TDS	5.45	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P408542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298602	Fluoride	0.531	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P408584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2298654	Organic Carbon	1.17	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2298693
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	105	P	30 - 160

Lab Sample ID: 2298694
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	123	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	109	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.0	P	30 - 160
EPA 8321B	Primidone-d5	70.9	P	30 - 160
EPA 8321B	Sucralose-d6	126	P	30 - 160

Lab Sample ID: 2298698
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	43.9	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	54.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	50.9	P	30 - 97.0
EPA 8276	PCNB	58.0	P	45 - 119

Lab Sample ID: 2298699
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	51.0	P	20 - 200
EPA 8270E	Simazine-d10	104	P	71 - 140
EPA 8270E	Terbufos-d10	87.4	P	62 - 131

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A109791

Included Lab Sample IDs: 2298674

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	99.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109792

Included Lab Sample IDs: 2298670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A109799

Included Lab Sample IDs: 2298670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.8	103	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A109837

Included Lab Sample IDs: 2298694

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.8	106	P/P	60 - 160
Glufosinate	106	119	P/P	60 - 160
Glyphosate	107	112	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A109860

Included Lab Sample IDs: 2298702, 2298703, 2298704, 2298705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	103	P/P	90 - 110
Antimony	99.2	99.9	P/P	90 - 110
Arsenic	99.7	102	P/P	90 - 110
Barium	100	99.6	P/P	90 - 110
Beryllium	101	101	P/P	90 - 110
Boron	102	103	P/P	90 - 110
Cadmium	100	99.1	P/P	90 - 110
Chromium	99.8	101	P/P	90 - 110
Cobalt	97.6	98.8	P/P	90 - 110
Copper	100	102	P/P	90 - 110
Lead	94.8	95.1	P/P	90 - 110
Manganese	101	102	P/P	90 - 110
Molybdenum	99.6	99.6	P/P	90 - 110
Nickel	100	101	P/P	90 - 110
Selenium	98.4	101	P/P	90 - 110
Silver	100	99.5	P/P	90 - 110
Thallium	106	107	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A109872
Included Lab Sample IDs: 2298694

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	101	100	P/P	60 - 160
Endothall	94.3	85.3	P/P	60 - 160
Sucralose	109	111	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A109873
Included Lab Sample IDs: 2298670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.9	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A109873
Included Lab Sample IDs: 2298670

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A109886
Included Lab Sample IDs: 2298672

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A109892
Included Lab Sample IDs: 2298702, 2298703, 2298704, 2298705

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Calcium	103	101	P/P	90 - 110
Iron	103	104	P/P	90 - 110
Iron	104	103	P/P	90 - 110
Magnesium	102	103	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	100	99.6	P/P	90 - 110
Potassium	99.7	100	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Strontium	101	98.1	P/P	90 - 110
Strontium	98.1	99.8	P/P	90 - 110
Tin	98.4	98.8	P/P	90 - 110
Tin	98.8	96.9	P/P	90 - 110
Titanium	98.8	98.9	P/P	90 - 110
Titanium	99.2	98.8	P/P	90 - 110
Vanadium	97.4	97.2	P/P	90 - 110
Vanadium	98.0	97.4	P/P	90 - 110
Zinc	98.6	98.7	P/P	90 - 110
Zinc	98.7	98.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A109902

Included Lab Sample IDs: 2298672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	94.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109906

Included Lab Sample IDs: 2298672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A109917

Included Lab Sample IDs: 2298698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.7		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	106		P	80 - 120
Beta-BHC	100		P	80 - 120
Beta-Cyfluthrin	89.8		P	80 - 120
Bifenthrin	98.3		P	80 - 120
Chlorothalonil	93.2		P	80 - 120
Cis-Nonachlor	102		P	80 - 120
Cypermethrin	104		P	80 - 120
Dacthal	99.2		P	80 - 120
DDD-p,p'	98.4		P	80 - 120
DDE-p,p'	99.5		P	80 - 120
DDT-p,p'	99.8		P	80 - 120
Delta-BHC	98.4		P	80 - 120
Deltamethrin	90.5		P	80 - 120
Dichlobenil	95.8		P	80 - 120
Dicofol	98.6		P	80 - 120
Dieldrin	98.1		P	80 - 120
Endosulfan I	98.7		P	80 - 120
Endosulfan II	97.0		P	80 - 120
Endosulfan Sulfate	93.3		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	112		P	80 - 120
Esfenvalerate	92.1		P	80 - 120
Ethalfuralin	99.2		P	80 - 120
Fenpropathrin	92.8		P	80 - 120
Gamma-BHC	99.2		P	80 - 120
Gamma-Chlordane	97.8		P	80 - 120
Heptachlor	99.3		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Kepone	57.1*		F	80 - 120
Lambda-Cyhalothrin	88.5		P	80 - 120
Methoprene	95.4		P	80 - 120
Methoxychlor	100		P	80 - 120
MGK-264	87.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A109917
Included Lab Sample IDs: 2298698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mirex	96.2		P	80 - 120
Oxychlordane	97.8		P	80 - 120
Permethrin	98.8		P	80 - 120
Phenothrin	99.1		P	80 - 120
Piperonyl Butoxide	72.5*		F	80 - 120
Prallethrin	84.1		P	80 - 120
Tau-Fluvalinate	94.2		P	80 - 120
Tetramethrin	79.6*		F	80 - 120
Trans-Nonachlor	103		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	98.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A109920
Included Lab Sample IDs: 2298693

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	109	110	P/P	60 - 150
Aldicarb	92.1	68.2	P/P	60 - 150
Aldicarb Sulfone	98.3	99.8	P/P	50 - 150
Aldicarb Sulfoxide	104	90.8	P/P	50 - 150
Carbaryl	79.2	106	P/P	60 - 150
Carbofuran	113	123	P/P	50 - 150
Methiocarb	112	110	P/P	50 - 150
Methomyl	106	103	P/P	50 - 150
Oxamyl	86.6	93.1	P/P	50 - 150
Propoxur	99.1	103	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A109942
Included Lab Sample IDs: 2298672

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	95.7	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A109954
Included Lab Sample IDs: 2298698

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.6		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 8321B
Run ID: A109964
Included Lab Sample IDs: 2298694

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.6	111	P/P	50 - 150
2,4,5-T	118	108	P/P	50 - 150
Acetaminophen	96.5	99.2	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A109964
Included Lab Sample IDs: 2298694

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetamiprid	101	107	P/P	50 - 150
Afidopyropen	77.5	106	P/P	50 - 150
Bentazon	77.5	89.5	P/P	50 - 160
Benzovindiflupyr	102	98.2	P/P	50 - 150
Carbamazepine	104	109	P/P	60 - 150
Clothianidin	92.9	129	P/P	60 - 150
Dinotefuran	97.8	104	P/P	50 - 150
Diuron	123	67.8	P/P	60 - 160
Fenuron	108	113	P/P	60 - 150
Fluridone	103	135	P/P	60 - 160
Hydrocodone	102	108	P/P	60 - 150
Ibuprofen	99.3	80.0	P/P	50 - 160
Imazapyr	118	99.9	P/P	50 - 150
Imidacloprid	88.1	83.9	P/P	60 - 150
Linuron	90.2	85.9	P/P	60 - 150
Mandestrobin	103	102	P/P	50 - 150
MCPP	81.0	88.1	P/P	50 - 150
Naproxen	65.0	62.9	P/P	50 - 160
Primidone	62.1	97.9	P/P	60 - 150
Pyraclostrobin	112	107	P/P	60 - 150
Silvex	105	116	P/P	50 - 150
Thiamethoxam	89.0	103	P/P	50 - 150
Tolfenpyrad	109	118	P/P	60 - 150
Triclopyr	114	92.6	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A110005
Included Lab Sample IDs: 2298699

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	117		P	80 - 120
Atrazine	99.2		P	80 - 120
Atrazine Desethyl	106		P	80 - 120
Azinphos Methyl	109		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	108		P	80 - 120
Butylate	105		P	80 - 120
Caffeine	103		P	80 - 120
Carbophenothion	81.6		P	80 - 120
Carfentrazone Ethyl	95.0		P	80 - 120
Chlorfenapyr	88.2		P	80 - 120
Chlorpyrifos Ethyl	87.1		P	80 - 120
Chlorpyrifos Methyl	86.5		P	80 - 120
Coumaphos	85.7		P	80 - 120
Cyanazine	113		P	80 - 120
Cyprodinil	110		P	80 - 120
Demeton	86.9		P	80 - 120
Diazinon	112		P	80 - 120
Difenoconazole	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A110005
Included Lab Sample IDs: 2298699

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dimethenamid	106		P	80 - 120
Dimethomorph	103		P	80 - 120
Disulfoton	88.8		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	100		P	80 - 120
Ethion	89.3		P	80 - 120
Ethoprop	104		P	80 - 120
Etridiazole	106		P	80 - 120
Fenamiphos	87.1		P	80 - 120
Fenbuconazole	99.1		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	86.8		P	80 - 120
Fipronil Sulfone	82.2		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	107		P	80 - 120
Flumioxazin	97.4		P	80 - 120
Flutolanil	86.6		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	104		P	80 - 120
Imazalil	100		P	80 - 120
Iprodione	102		P	80 - 120
Loratadine	109		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	107		P	80 - 120
Mevinphos	95.7		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	107		P	80 - 120
Naled	90.4		P	80 - 120
Napropamide	103		P	80 - 120
Norflurazon	97.8		P	80 - 120
Oxadiazon	107		P	80 - 120
Oxyfluorfen	105		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	107		P	80 - 120
Phenytol	107		P	80 - 120
Phorate	91.3		P	80 - 120
Prodiamine	103		P	80 - 120
Prometon	113		P	80 - 120
Prometryn	109		P	80 - 120
Pronamide	104		P	80 - 120
Propanil	92.1		P	80 - 120
Propargite	102		P	80 - 120
Propiconazole	101		P	80 - 120
Pyraflufen Ethyl	97.9		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	110		P	80 - 120
Simazine	96.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A110005
Included Lab Sample IDs: 2298699

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Stirophos	80.0		P	80 - 120
Sulfentrazone	101		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	94.8		P	80 - 120
Terbuthylazine	101		P	80 - 120
Thiobencarb	106		P	80 - 120
Triadimefon	112		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110037
Included Lab Sample IDs: 2298699

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Malathion	95.6		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A110040
Included Lab Sample IDs: 2298670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	105	104	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.692	
EPA 200.7 Rev. 4.4	Calcium	106						0.704
	Iron	107	109	108	107			0.193
	Magnesium	105	108	101				0.763
	Potassium	103	106	103				0.278
	Sodium	104	106	102				0.0437
	Strontium	100	103	102	99.6			0.986
	Tin	104	102	102	97.9			0.102
	Titanium	105	105	103	102			1.37
	Vanadium	104	105	104	102			0.983
	Zinc	105	104	103	99.3			1.37
EPA 200.8 Rev. 5.4	Aluminum	100	101	99.8	102			1.08
	Antimony	98.3	102	102	104			0.0631
	Arsenic	101	105	103	107			1.57
	Barium	105	106	105	107			0.721
	Beryllium	104	103	100	106			2.56
	Boron	96.3	97.5	97.0	102			0.397
	Cadmium	97.9	101	99.3	102			1.37
	Chromium	99.4	105	104	105			0.515
	Cobalt	99.9	103	102	103			0.635
	Copper	103	103	102	102			0.345
	Lead	95.8	99.2	98.9	100			0.324
	Manganese	98.6	102	102	103			0.108
	Molybdenum	99.5	103	104	108			0.572
	Nickel	102	106	105	104			0.683
	Selenium	99.8	103	102	103			0.476
	Silver	99.0	100	98.7	99.0			1.62
	Thallium	105	113	112	111			0.344
EPA 300.0 Rev. 2.1	Chloride	106	105	105			2.18	
	Sulfate	101	100	99.7			1.12	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8	97.0	98.0				0.905
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.1	105	106				0.482
EPA 353.2 Rev. 2.0	NO2NO3-N	105	102					0.232
EPA 365.1 Rev. 2.0	Total-P	108	111	112				0.731
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.8	98.6	99.1				0.360
EPA 8270E	Acetochlor	96.2	96.4	88.6				8.41
	Alachlor	85.4	101	82.5				20.2
	Aldrin	58.8	60.8	56.9				6.74
	Alpha-BHC	94.8	93.2	101				7.74
	Alpha-Chlordane	84.4	76.2	69.5				9.18
	Ametryn	102	107	98.4				8.87
	Atrazine	87.9	81.3	79.0				2.16
	Atrazine Desethyl	45.1	36.9	36.7				0.488
	Azinphos Methyl	87.6	83.8	71.2				16.3
	Azoxystrobin	98.7	98.6	94.8				3.91
	Beta-BHC	109	106	79.9				28.3
	Beta-Cyfluthrin	74.1	94.0	71.4				27.3
	Bifenthrin	57.6	75.1	70.5				6.26
	Bromacil	70.8						3.07
	Butylate	60.1	57.6	62.2				7.60
	Caffeine	103	149	113				27.7
	Carbophenothion	100	78.2	81.8				4.48
	Carfentrazone Ethyl	95.0	87.1	84.4				3.18
	Chlorfenapyr	82.6	68.3	75.0				9.34

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Chlorothalonil	84.8	76.1	76.6			0.639
	Chlorpyrifos Ethyl	95.5	72.8	71.9			1.20
	Chlorpyrifos Methyl	91.2	76.9	72.0			6.66
	Cis-Nonachlor	76.9	64.3	55.9			14.1
	Coumaphos	155	133	137			2.81
	Cyanazine	97.9	99.7	94.8			5.08
	Cypermethrin	83.3	99.4	80.0			21.7
	Cyprodinil	103	88.7	97.1			9.05
	Dacthal	98.1	87.2	78.9			9.92
	DDD-p,p'	85.2	78.5	67.7			14.9
	DDE-p,p'	77.6	69.7	69.1			0.842
	DDT-p,p'	75.5	76.6	71.9			6.37
	Delta-BHC	112	105	92.2			13.4
	Deltamethrin	84.1	114	86.4			27.6
	Demeton	69.0	64.7	62.2			3.86
	Diazinon	98.5	97.2	98.5			1.36
	Dichlobenil	96.5	77.2	51.5			39.8
	Dicofol	77.3	81.5	74.8			8.65
	Dieldrin	84.1	71.4	63.3			11.3
	Difenoconazole	78.1	67.9	66.6			1.88
	Dimethenamid	76.8	75.9	72.5			4.49
	Dimethomorph	101	86.0	80.2			7.04
	Disulfoton	86.1	80.1	73.0			9.27
	Dithiopyr	89.9	90.9	88.5			2.68
	Endosulfan I	84.3	74.3	69.2			7.08
	Endosulfan II	89.0	72.2	56.2			24.9
	Endosulfan Sulfate	95.0	80.2	54.7			37.8
	Endrin	84.3	76.1	66.9			12.9
	Endrin Aldehyde	84.9	75.8	55.2			31.5
	Endrin Ketone	123	103	76.7			29.5
	EPTC	55.0	47.7	58.6			20.4
	Esfenvalerate	66.6	84.8	66.0			24.9
	Ethalfuralin	78.3	79.7	75.3			5.69
	Ethion	90.9	79.7	79.6			0.125
	Ethoprop	72.2	77.1	69.0			11.2
	Etridiazole	57.9	57.4	61.5			6.88
	Fenamiphos	96.3	88.9	84.3			5.30
	Fenbuconazole	135	127	119			5.87
	Fenpropathrin	76.0	88.6	76.3			14.9
	Fipronil	92.9	93.9	91.6			2.55
	Fipronil Desulfinyl	90.5	87.0	85.4			1.88
	Fipronil Sulfide	85.2	74.8	74.1			0.873
	Fipronil Sulfone	81.1	72.9	73.2			0.481
	Fluazifop-P-butyl	90.6	89.8	92.6			3.15
	Fludioxonil	85.4	78.7	75.3			4.44
	Flumioxazin	217	202	201			0.692
	Flutolanil	72.5	66.5	67.9			2.06
	Fluxapyroxad	125	122	112			8.48
	Fonofos	85.3	75.3	69.8			7.63
	Gamma-BHC	101	95.7	92.1			3.81
	Gamma-Chlordane	79.1	74.6	67.5			9.98
	Heptachlor	72.6	68.2	63.3			7.41
	Heptachlor Epoxide	90.8	82.3	70.4			15.6
	Hexachlorobenzene	78.2	78.5	73.7			6.28

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Hexazinone	90.6		85.7	81.2			5.43
	Imazalil	90.9		73.9	80.8			8.89
	Iprodione	53.7		43.5	39.5			9.64
	Kepone	134		106	75.1			33.8
	Lambda-Cyhalothrin	68.6		98.5	90.8			8.17
	Loratadine	83.0		76.3	65.7			15.0
	Malathion	93.6		83.8	93.7			11.1
	Metalaxyl	81.7						3.52
	Methoprene	47.0		65.6	67.2			2.46
	Methoxychlor	94.9		104	93.3			11.1
	Metolachlor	91.4		81.9	85.7			4.64
	Metribuzin	87.3		80.3	77.7			3.28
	Mevinphos	47.6		57.4	43.9			26.7
	MGK-264	85.8		82.8	76.2			8.29
	Mirex	53.1		55.5	53.9			2.77
	Molinate	69.3		65.3	68.9			5.40
	Myclobutanil	84.3		82.8	78.5			5.35
	Naled	87.5		78.4	84.9			7.91
	Napropamide	86.6		78.3	79.1			1.04
	Norflurazon	91.7						17.6
	Oxadiazon	76.2		71.9	72.6			0.862
	Oxychlorthane	78.1		79.7	75.3			5.71
	Oxyfluorfen	95.8		102	103			0.447
	Parathion Ethyl	88.2		80.7	79.2			1.86
	Parathion Methyl	105		103	90.5			12.7
	Pendimethalin	73.5		67.0	63.3			5.59
	Permethrin	75.2		97.2	87.8			10.1
	Phenothrin	47.3		78.7	77.0			2.19
	Phenytol	65.7		70.2	63.0			10.7
	Phorate	52.7		57.2	57.3			0.161
	Piperonyl Butoxide	96.1		101	91.8			9.33
	Prallethrin	67.7		70.4	63.7			9.99
	Prodiamine	89.9		111	104			6.35
	Prometon	113		116	110			5.52
	Prometryn	92.0		93.2	88.4			5.39
	Pronamide	89.7		96.3	86.2			11.0
	Propanil	72.4		76.4	73.8			3.47
	Propargite	116		116	116			0.118
	Propiconazole	99.0		94.3	91.0			3.53
	Pyraflufen Ethyl	106		99.4	99.0			0.406
	Pyridaben	171						8.44
	Pyriproxyfen	44.9		39.8	37.7			5.48
	Simazine	82.3						3.98
	Stirophos	89.3		70.4	72.0			2.28
	Sulfentrazon	91.0		91.3	80.6			12.5
	Tau-Fluvalinate	65.0		84.8	62.0			31.1
	Tebuconazole	110		102	97.3			4.73
	Terbufos	96.6		91.5	90.5			1.05
	Terbutylazine	86.1		81.9	84.1			2.61
	Tetramethrin	83.6		103	91.3			12.0
	Thiobencarb	88.4		80.9	80.4			0.681
	Trans-Nonachlor	78.7		79.0	64.8			19.8
	Triadimefon	86.7		69.0	70.1			1.55
	Triclosan Methyl	87.6		73.2	71.3			2.68

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Trifluralin	77.6	79.6	75.3			5.55
EPA 8276	Chlordane	78.0	77.8	68.4			11.0
	Toxaphene	67.6	75.2	86.9			14.5
EPA 8321B	2,4-D	110	101	115			12.3
	2,4,5-T	83.0	93.0	122			26.8
	3-Hydroxycarbofuran	43.6	85.4	90.9			6.17
	Acesulfame K	94.4	128	140			9.50
	Acetaminophen	102	97.0	104			6.65
	Acetamiprid	79.8	96.3	98.8			2.61
	Afidopyropen	50.0	81.4	83.5			2.55
	Aldicarb	63.5	84.3	66.9			22.9
	Aldicarb Sulfone	102	82.9	94.5			12.1
	Aldicarb Sulfoxide	107	49.8	55.2			10.3
	AMPA	95.3	97.0	93.1			4.14
	Bentazon	84.0	72.5	86.2			17.3
	Benzovindiflupyr	81.4	85.5	105			20.6
	Carbamazepine	82.0	86.4	114			27.9
	Carbaryl	90.3	70.4	66.4			5.84
	Carbofuran	108	102	95.7			6.11
	Clothianidin	87.5	126	115			6.54
	Dinotefuran	95.9	107	118			10.2
	Diuron	101	97.4	121			20.3
	Endothall	83.6	124	135			7.94
	Fenuron	92.9	98.2	103			4.90
	Fluridone	87.7	96.6	108			11.3
	Glufosinate	99.1	108	101			6.24
	Glyphosate	91.2	93.9	93.7			0.124
	Hydrocodone	90.2	101	101			0.0362
	Ibuprofen	131	69.3	154			76.0
	Imazapyr	96.9	113	108			4.08
	Imidacloprid	85.2					6.97
	Linuron	85.4	79.8	123			42.5
	Mandestrobin	95.3	103	104			1.02
	MCPP	106	95.5	108			12.2
	Methiocarb	94.3	81.1	101			21.5
	Methomyl	101	84.1	85.6			1.73
	Naproxen	88.4	110	142			25.6
	Oxamyl	100	43.9	55.6			12.6
	Primidone	91.0	122	120			1.36
	Propoxur	103	81.1	97.9			18.8
	Pyraclostrobin	83.6	100	107			6.72
	Silvex	82.0	87.5	117			28.8
	Sucralose	96.4	102	109			5.95
	Thiamethoxam	92.1	111	123			6.13
	Tolfenpyrad	43.4	56.6	66.2			15.7
	Triclopyr	96.5	102	96.4			5.69
SM 2120 B-2011	Color (true)	98.6				0.560	
SM 2320 B-2011	Total Alkalinity	97.7				1.59	
SM 2540 C-2011	TDS					5.45	
SM 4500 F-C-2011	Fluoride	100	99.0	99.7			0.531
SM 5310 B-2011	Organic Carbon	95.2	101	103			1.17

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2298670
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2298702, 2298703, 2298704, 2298705
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2298702, 2298703, 2298704, 2298705
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2298670
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2298670
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2298672
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2298672
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2298672
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2298672
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2298674
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2298698
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2298699
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2298698
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2298693
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2298694
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2298670
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2298670
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2298702, 2298703, 2298704, 2298705
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2298670
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2298670
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2298670
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2298672

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	01/11/2022			01/11/2022 17:12	Khloe J Berg	2298670
EPA 200.7 Rev. 4.4	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/14/2022 17:33	Josef B Mick	2298702
	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/14/2022 18:10	Josef B Mick	2298703
	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/14/2022 18:16	Josef B Mick	2298704
	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/14/2022 18:22	Josef B Mick	2298705
EPA 200.8 Rev. 5.4	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/13/2022 21:34	Alexander Thompson	2298702
	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/13/2022 21:43	Alexander Thompson	2298703
	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/13/2022 21:53	Alexander Thompson	2298704
	01/11/2022	01/13/2022 10:30	Vijayalakshmi Reddy	01/13/2022 22:02	Alexander Thompson	2298705
EPA 300.0 Rev. 2.1	01/11/2022			01/27/2022 01:30	James L Waggeberby	2298670
EPA 350.1 Rev. 2.0	01/11/2022			01/21/2022 10:42	Ping Hua	2298672
EPA 351.2 Rev. 2.0	01/11/2022	01/19/2022 11:18	Samantha L Bates	01/20/2022 11:01	Alexandra J Mattheus	2298672
EPA 353.2 Rev. 2.0	01/11/2022			01/18/2022 09:44	Beverly Y. Sanders	2298672
EPA 365.1 Rev. 2.0	01/11/2022	01/13/2022 13:10	Simonne.V. Calhoun	01/14/2022 16:28	Shengyu Ding	2298672
EPA 365.1 Rev. 2.0 dissolved	01/11/2022			01/11/2022 16:09	James L Waggeberby	2298674
EPA 8270E	01/11/2022	01/14/2022 08:00	Fe-Val Siddell	01/20/2022 18:34	Michael Poppell	2298699
	01/11/2022	01/14/2022 08:00	Fe-Val Siddell	01/25/2022 21:59	Michael Poppell	2298699
	01/11/2022	01/14/2022 08:30	Rasheda Ghaffari	01/18/2022 20:59	Vandana T. Nagar	2298698
EPA 8276	01/11/2022	01/14/2022 08:30	Rasheda Ghaffari	01/20/2022 15:49	Arthur Maknenko	2298698
EPA 8321B	01/11/2022	01/12/2022 10:00	Hoor Shaik	01/15/2022 15:43	Juyoung Kim	2298694
	01/11/2022	01/12/2022 10:00	Juyoung Kim	01/12/2022 17:03	Juyoung Kim	2298694
	01/11/2022	01/12/2022 10:00	Juyoung Kim	01/12/2022 19:52	Manjita Shrestha	2298694
	01/11/2022	01/14/2022 14:00	Hoor Shaik	01/19/2022 06:06	Juyoung Kim	2298693
SM 2120 B-2011	01/11/2022			01/11/2022 16:01	Blanca Fach	2298670
SM 2320 B-2011	01/11/2022			01/14/2022 05:08	Dale L. Simmons	2298670
SM 2340B	01/11/2022			01/14/2022 17:33	Josef B Mick	2298702
	01/11/2022			01/14/2022 18:10	Josef B Mick	2298703
	01/11/2022			01/14/2022 18:16	Josef B Mick	2298704
	01/11/2022			01/14/2022 18:22	Josef B Mick	2298705
SM 2540 C-2011	01/11/2022			01/13/2022 14:02	Yijie Li	2298670
SM 2540 D-2011	01/11/2022			01/13/2022 14:02	Yijie Li	2298670
SM 4500 F-C-2011	01/11/2022			01/14/2022 05:08	Dale L. Simmons	2298670
SM 5310 B-2011	01/11/2022			01/14/2022 20:35	Khloe J Berg	2298672