

Chemical Analysis Report

NW-DIST-2022-03-30-01

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-2022-03-28-30**
Customer: **NW-DIST**
Project ID: **SMP**

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

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

Certified by: Colin Wright, Program Administrator

Date Certified: 21-APR-2022 13:25

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

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: Wiggins Branch below Highway 29

Collection Date/Time: 03/29/2022 11:20

Field ID: G4NW0163

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315445	DEP SOP: NU-094-1	Color (true)**	28		PCU	P411757	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P411772	
	EPA 300.0 Rev. 2.1	Chloride	3.5		mg Cl/L	P411907	
		Sulfate	1.3		mg SO4/L	P411910	
	SM 2320 B-2011	Total Alkalinity	4.6		mg CaCO3/L	P411968	
	SM 2540 C-2011	TDS	23	I	mg/L	P412030	
	SM 2540 D-2011	TSS	4	I	mg/L	P411902	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P411972	
2315447	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P412024	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P412169	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P411800	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P411939	
	SM 5310 B-2011	Organic Carbon	4.1		mg C/L	P412045	
2315463	EPA 200.7 Rev. 4.4	Calcium	2.13		mg/L	P411932	
		Iron	1.12E+03		ug/L	P411932	
		Magnesium	0.91		mg/L	P411932	
		Potassium	0.30	U	mg/L	P411932	
		Sodium	1.9	I	mg/L	P411932	
		Strontium	6.5	I	ug/L	P411932	
		Tin	3.0	U	ug/L	P411932	
		Titanium	0.75	U	ug/L	P411932	
		Vanadium	2.0	U	ug/L	P411932	
		Zinc	5.0	U	ug/L	P411932	
	EPA 200.8 Rev. 5.4	Aluminum	69		ug/L	P411932	
		Antimony	0.050	U	ug/L	P411932	
		Arsenic	0.38		ug/L	P411932	
		Barium	12.4		ug/L	P411932	
		Beryllium	0.048		ug/L	P411932	
		Boron**	9.3		ug/L	P411932	
		Cadmium	0.020	U	ug/L	P411932	
		Chromium	0.40	U	ug/L	P411932	
		Cobalt	0.330		ug/L	P411932	
		Copper	0.40	U	ug/L	P411932	
		Lead	0.20	U	ug/L	P411932	
		Manganese	26.6		ug/L	P411932	
		Molybdenum	0.15	U	ug/L	P411932	
		Nickel	0.50	I	ug/L	P411932	
		Selenium	0.20	U	ug/L	P411932	
		Silver	0.010	U	ug/L	P411932	
		Thallium	0.10	U	ug/L	P411932	
	SM 2340 B-2011	Hardness	9.0		mg/L	P411932	

Ref. Method and Comment:

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

Sample Location: Brushy Creek upstream of Arthur Brown Rd.

Collection Date/Time: 03/29/2022 12:45

Field ID: G5NW0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315465	EPA 200.7 Rev. 4.4	Calcium	2.09		mg/L	P411932	
		Iron	480		ug/L	P411932	
		Magnesium	0.95		mg/L	P411932	
		Potassium	0.63	I	mg/L	P411932	
		Sodium	2.7		mg/L	P411932	
		Strontium	11.7		ug/L	P411932	
		Tin	3.0	U	ug/L	P411932	
		Titanium	1.1	I	ug/L	P411932	
		Vanadium	2.0	U	ug/L	P411932	
	EPA 200.8 Rev. 5.4	Zinc	5.4	I	ug/L	P411932	
		Aluminum	111		ug/L	P411932	
		Antimony	0.050	U	ug/L	P411932	
		Arsenic	0.31		ug/L	P411932	
		Barium	27.0		ug/L	P411932	
		Beryllium	0.041		ug/L	P411932	
		Boron**	10.7		ug/L	P411932	
		Cadmium	0.020	U	ug/L	P411932	
		Chromium	0.40	U	ug/L	P411932	
		Cobalt	0.341		ug/L	P411932	
		Copper	0.40	U	ug/L	P411932	
		Lead	0.26	I	ug/L	P411932	
		Manganese	25.6		ug/L	P411932	
		Molybdenum	0.15	U	ug/L	P411932	
		Nickel	0.50	U	ug/L	P411932	
		Selenium	0.20	U	ug/L	P411932	
		Silver	0.010	U	ug/L	P411932	
		Thallium	0.10	U	ug/L	P411932	
	SM 2340 B-2011	Hardness	9.1		mg/L	P411932	

Sample Location: Little Pine Barren Creek below CR99A

Collection Date/Time: 03/29/2022 12:20

Field ID: G4NW0192

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315446	DEP SOP: NU-094-1	Color (true)**	30	A	PCU	P411757	
	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P411772	
	EPA 300.0 Rev. 2.1	Chloride	6.1		mg Cl/L	P411907	
		Sulfate	0.79		mg SO4/L	P411910	
	SM 2320 B-2011	Total Alkalinity	6.0		mg CaCO3/L	P411968	
	SM 2540 C-2011	TDS	29		mg/L	P412030	
	SM 2540 D-2011	TSS	6	I	mg/L	P411902	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P411972	
2315448	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P412024	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P412172	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.56		mg N/L	P411800	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P411939	
	SM 5310 B-2011	Organic Carbon	2.2		mg C/L	P412045	
2315464	EPA 200.7 Rev. 4.4	Calcium	2.01		mg/L	P411932	
		Iron	1.76E+03		ug/L	P411932	
		Magnesium	1.66		mg/L	P411932	
		Potassium	1.1	I	mg/L	P411932	
		Sodium	2.3		mg/L	P411932	
		Strontium	16.8		ug/L	P411932	
		Tin	3.0	U	ug/L	P411932	
		Titanium	0.78	I	ug/L	P411932	
	EPA 200.8 Rev. 5.4	Vanadium	2.0	U	ug/L	P411932	
		Zinc	5.0	U	ug/L	P411932	
		Aluminum	48		ug/L	P411932	
		Antimony	0.050	U	ug/L	P411932	
		Arsenic	0.42		ug/L	P411932	
		Barium	52.3		ug/L	P411932	
		Beryllium	0.030	I	ug/L	P411932	
		Boron**	9.9		ug/L	P411932	
		Cadmium	0.020	U	ug/L	P411932	
		Chromium	0.40	U	ug/L	P411932	
		Cobalt	0.461		ug/L	P411932	
		Copper	0.40	U	ug/L	P411932	
		Lead	0.20	U	ug/L	P411932	
		Manganese	80.2		ug/L	P411932	
		Molybdenum	0.15	U	ug/L	P411932	
		Nickel	0.50	U	ug/L	P411932	
		Selenium	0.20	U	ug/L	P411932	
		Silver	0.010	U	ug/L	P411932	
		Thallium	0.10	U	ug/L	P411932	
	SM 2340 B-2011	Hardness	11.9		mg/L	P411932	

Ref. Method and Comment:

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

Sample Location: Little Pine Barren Creek above CR99

Collection Date/Time: 03/29/2022 13:25

Field ID: G4NW0420

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315466	EPA 200.7 Rev. 4.4	Calcium	2.55		mg/L	P411932	
		Iron	3.07E+03		ug/L	P411932	
		Magnesium	1.61		mg/L	P411932	
		Potassium	1.2	I	mg/L	P411932	
		Sodium	2.3		mg/L	P411932	
		Strontium	18.3		ug/L	P411932	
		Tin	3.0	U	ug/L	P411932	
		Titanium	0.92	I	ug/L	P411932	
		Vanadium	2.0	U	ug/L	P411932	
		Zinc	5.0	U	ug/L	P411932	
	EPA 200.8 Rev. 5.4	Aluminum	73		ug/L	P411932	
		Antimony	0.050	U	ug/L	P411932	
		Arsenic	0.47		ug/L	P411932	
		Barium	57.4		ug/L	P411932	
		Beryllium	0.062		ug/L	P411932	
		Boron**	19.6		ug/L	P411932	
		Cadmium	0.020	U	ug/L	P411932	
		Chromium	0.40	U	ug/L	P411932	
		Cobalt	0.773		ug/L	P411932	
		Copper	0.40	U	ug/L	P411932	
		Lead	0.20	U	ug/L	P411932	
		Manganese	56.7		ug/L	P411932	
		Molybdenum	0.15	U	ug/L	P411932	
		Nickel	0.62	I	ug/L	P411932	
		Selenium	0.20	U	ug/L	P411932	
		Silver	0.010	U	ug/L	P411932	
		Thallium	0.10	U	ug/L	P411932	
	SM 2340 B-2011	Hardness	13.0		mg/L	P411932	

Sample Location: McDavid Creek 100 m upstream SR99

Collection Date/Time: 03/29/2022 14:00

Field ID: G5NW0150

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315467	EPA 200.7 Rev. 4.4	Calcium	0.70		mg/L	P411932	
		Iron	330		ug/L	P411932	
		Magnesium	0.62		mg/L	P411932	
		Potassium	0.31	I	mg/L	P411932	
		Sodium	2.0	I	mg/L	P411932	
		Strontium	6.1	I	ug/L	P411932	
		Tin	3.0	U	ug/L	P411932	
		Titanium	1.1	I	ug/L	P411932	
		Vanadium	2.0	U	ug/L	P411932	
		Zinc	5.0	U	ug/L	P411932	
	EPA 200.8 Rev. 5.4	Aluminum	122		ug/L	P411932	
		Antimony	0.050	U	ug/L	P411932	
		Arsenic	0.17	I	ug/L	P411932	
		Barium	16.2		ug/L	P411932	
		Beryllium	0.034	I	ug/L	P411932	
		Boron**	7.6	I	ug/L	P411932	
		Cadmium	0.020	U	ug/L	P411932	
		Chromium	0.40	U	ug/L	P411932	
		Cobalt	0.193		ug/L	P411932	
		Copper	0.40	U	ug/L	P411932	
		Lead	0.20	U	ug/L	P411932	
		Manganese	11.1		ug/L	P411932	
		Molybdenum	0.15	U	ug/L	P411932	
		Nickel	0.50	U	ug/L	P411932	
		Selenium	0.20	U	ug/L	P411932	
		Silver	0.010	U	ug/L	P411932	
		Thallium	0.10	U	ug/L	P411932	
	SM 2340 B-2011	Hardness	4.3		mg/L	P411932	

Sample Location: Big Escambia Creek downstream of Fannie Rd Collection Date/Time: 03/29/2022 10:25

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315443	DEP SOP: NU-094-1	Color (true)**	36		PCU	P411757	
	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P411772	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P411907	
		Sulfate	1.1		mg SO4/L	P411910	
	SM 2320 B-2011	Total Alkalinity	3.4		mg CaCO3/L	P411968	
	SM 2540 C-2011	TDS	28		mg/L	P412030	
	SM 2540 D-2011	TSS	4	I	mg/L	P411902	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P411972	
2315444	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P412024	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P412168	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P411800	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P411939	
	SM 5310 B-2011	Organic Carbon	2.7		mg C/L	P412045	
2315458	EPA 8321B	Aldicarb	0.020	U	ug/L	P411857	
		Aldicarb Sulfone	0.0020	U	ug/L	P411857	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P411857	
		Carbaryl	0.0020	U	ug/L	P411857	
		Carbofuran	0.0020	U	ug/L	P411857	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P411857	
		Methiocarb	0.0020	U	ug/L	P411857	
		Methomyl	0.0020	U	ug/L	P411857	
		Oxamyl	0.0020	U	ug/L	P411857	
		Propoxur	0.0020	U	ug/L	P411857	
2315459		2,4-D	0.0020	U	ug/L	P411856	
		Acesulfame K	0.10	U	ug/L	P411836	
		2,4,5-T	0.0040	U	ug/L	P411856	
		AMPA	0.10	U	ug/L	P411836	
		Acetaminophen	0.0080	U	ug/L	P411856	
		Acetamiprid	0.0020	U	ug/L	P411856	
		Endothall	0.25	U	ug/L	P411836	
		Glufosinate	0.10	U	ug/L	P411836	
		Glyphosate	0.10	U	ug/L	P411836	
		Afidopyropen	0.0020	U	ug/L	P411856	
		Bentazon	8.0E-04	U	ug/L	P411856	
		Sucralose	0.091		ug/L	P411836	
		Benzovindiflupyr	0.0020	U	ug/L	P411856	
		Carbamazepine	8.0E-04	U	ug/L	P411856	
		Clothianidin	0.0020	U	ug/L	P411856	
		Dinotefuran	0.0020	U	ug/L	P411856	
		Diuron	0.0020	U	ug/L	P411856	
		Fenuron	0.016	U	ug/L	P411856	
		Fluridone	8.0E-04	U	ug/L	P411856	
		Imazapyr	0.018		ug/L	P411856	
		Hydrocodone	0.0020	U	ug/L	P411856	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315459	EPA 8321B	Ibuprofen	0.020	U	ug/L	P411856	
		Imidacloprid	0.0026	I	ug/L	P411856	
		Linuron	0.0040	U	ug/L	P411856	
		Mandestrobin	0.0020	U	ug/L	P411856	
		MCP	0.0020	U	ug/L	P411856	
		Naproxen	0.0080	U	ug/L	P411856	
		Primidone	0.0040	U	ug/L	P411856	RPD
		Pyraclostrobin	0.0020	U	ug/L	P411856	
		Silvex	0.0040	U	ug/L	P411856	
		Thiamethoxam	0.0020	U	ug/L	P411856	
		Tolfenpyrad	0.0020	U	ug/L	P411856	
		Triclopyr	0.0040	U	ug/L	P411856	
2315460	EPA 8270E	Aldrin	0.67	U	ng/L	P411871	
		Alpha-BHC	0.10	U	ng/L	P411871	
		Alpha-Chlordane	0.21	U	ng/L	P411871	
		PCB-1016	2.1	U	ng/L	P411871	
		Beta-BHC	0.10	U	ng/L	P411871	
		PCB-1221	2.1	U	ng/L	P411871	
		Beta-Cyfluthrin**	1.3	U	ng/L	P411871	
		PCB-1232	2.1	U	ng/L	P411871	
		Bifenthrin**	0.52	U	ng/L	P411871	
		PCB-1242	2.1	U	ng/L	P411871	
		PCB-1248	2.1	U	ng/L	P411871	
		Chlorothalonil	1.3	U	ng/L	P411871	
		PCB-1254	2.1	U	ng/L	P411871	
		Cis-Nonachlor**	0.21	U	ng/L	P411871	
		PCB-1260	2.1	UJ	ng/L	P411871	CCV, MS
		Cypermethrin	1.6	U	ng/L	P411871	
		Dacthal**	0.16	U	ng/L	P411871	
		DDD-p,p'	0.26	U	ng/L	P411871	
		DDE-p,p'	0.21	U	ng/L	P411871	
		DDT-p,p'	0.26	U	ng/L	P411871	
		Delta-BHC	0.41	U	ng/L	P411871	
		Deltamethrin**	1.3	U	ng/L	P411871	
		Dichlobenil**	0.26	U	ng/L	P411871	
		Dicofol	1.3	U	ng/L	P411871	
		Dieldrin	0.41	U	ng/L	P411871	
		Endosulfan I	0.41	U	ng/L	P411871	
		Endosulfan II	0.41	U	ng/L	P411871	
		Endosulfan Sulfate	0.31	U	ng/L	P411871	
		Endrin	0.41	U	ng/L	P411871	
		Endrin Aldehyde	0.78	U	ng/L	P411871	
		Endrin Ketone	0.41	U	ng/L	P411871	
		Esfenvalerate**	0.78	U	ng/L	P411871	
		Ethalfuralin**	0.16	U	ng/L	P411871	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315460	EPA 8270E	Fenpropathrin**	0.26	U	ng/L	P411871	
		Gamma-BHC	0.13	U	ng/L	P411871	
		Gamma-Chlordane	0.21	U	ng/L	P411871	
		Heptachlor	0.21	U	ng/L	P411871	
		Heptachlor Epoxide	0.26	U	ng/L	P411871	
		Hexachlorobenzene**	1.0	U	ng/L	P411871	
		Kepone**	5.2	U	ng/L	P411871	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P411871	
		Methoprene**	0.78	U	ng/L	P411871	
		Methoxychlor	0.31	U	ng/L	P411871	
		MGK-264**	0.21	U	ng/L	P411871	
		Mirex	0.73	U	ng/L	P411871	
		Oxychlordane**	0.31	U	ng/L	P411871	
		Permethrin	1.7	U	ng/L	P411871	
		Phenothrin**	0.93	U	ng/L	P411871	
		Piperonyl Butoxide**	0.16	U	ng/L	P411871	
		Prallethrin**	2.1	U	ng/L	P411871	
		Tau-Fluvalinate**	0.26	U	ng/L	P411871	
		Tetramethrin**	0.78	U	ng/L	P411871	
		Trans-Nonachlor**	0.21	U	ng/L	P411871	
		Triclosan Methyl**	0.16	U	ng/L	P411871	
		Trifluralin	0.21	U	ng/L	P411871	
EPA 8276	Chlordane	2.6	U	ng/L	P411871		
	Toxaphene	16	U	ng/L	P411871		
2315461	EPA 8270E	Oxybenzone**	9.7	UJ	ng/L	P411974	SUR
		Acetochlor	0.28	I	ng/L	P411974	
		Octinoxate**	27	I QJ	ng/L	P412360	SUR
		Alachlor	0.24	U	ng/L	P411974	
		Avobenzone**	100	UQJ	ng/L	P412360	SUR
		Ametryn	0.58	U	ng/L	P411974	
		Atrazine	1.4		ng/L	P411974	
		Atrazine Desethyl	1.5	U	ng/L	P411974	
		Azinphos Methyl	1.9	U	ng/L	P411974	
		Azoxystrobin**	0.49	U	ng/L	P411974	
		Bromacil	0.49	U	ng/L	P411974	
		Butylate	0.39	U	ng/L	P411974	
		Caffeine**	17	I Q	ng/L	P412360	
		Carbophenothion	0.19	UJ	ng/L	P411974	MS
		Carfentrazone Ethyl**	0.097	U	ng/L	P411974	
		Chlorfenapyr**	0.17	U	ng/L	P411974	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P411974	
		Chlorpyrifos Methyl	0.049	U	ng/L	P411974	
		Coumaphos**	0.49	U	ng/L	P411974	
		Cyanazine	3.2	U	ng/L	P411974	
		Cyprodinil**	0.097	U	ng/L	P411974	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315461	EPA 8270E	Demeton	1.5	U	ng/L	P411974	RPD
		Diazinon	0.12	U	ng/L	P411974	
		Difenoconazole**	0.58	U	ng/L	P411974	
		Dimethenamid**	0.097	U	ng/L	P411974	
		Dimethomorph**	0.17	U	ng/L	P411974	
		Disulfoton	0.49	U	ng/L	P411974	
		Dithiopyr**	0.17	U	ng/L	P411974	
		EPTC	1.2	U	ng/L	P411974	
		Ethion	0.15	U	ng/L	P411974	
		Ethoprop	0.097	U	ng/L	P411974	
		Etridiazole**	0.15	U	ng/L	P411974	
		Fenamiphos	0.49	U	ng/L	P411974	
		Fenbuconazole**	0.12	U	ng/L	P411974	
		Fipronil	0.24	U	ng/L	P411974	
		Fipronil Desulfinyl**	0.12	U	ng/L	P411974	
		Fipronil Sulfide	0.15	U	ng/L	P411974	
		Fipronil Sulfone	0.15	U	ng/L	P411974	
		Fluazifop-P-butyl**	0.097	U	ng/L	P411974	
		Fludioxonil**	0.12	U	ng/L	P411974	
		Flumioxazin**	1.7	UJ	ng/L	P411974	
		Flutolanil**	0.15	I	ng/L	P411974	
		Fluxapyroxad**	0.20	I	ng/L	P411974	
		Fonofos	0.19	U	ng/L	P411974	
		Hexazinone	1.2	I	ng/L	P411974	
		Imazalil**	0.73	U	ng/L	P411974	
		Iprodione**	0.58	U	ng/L	P411974	
		Loratadine**	0.097	U	ng/L	P411974	
		Malathion	0.34	U	ng/L	P411974	
		Metalaxyl	0.73	U	ng/L	P411974	
		Metolachlor	3.1		ng/L	P411974	
		Metribuzin	2.4	U	ng/L	P411974	
		Mevinphos	1.0	U	ng/L	P411974	
		Molinate	0.29	U	ng/L	P411974	
		Myclobutanil**	0.24	U	ng/L	P411974	
		Naled**	1.5	U	ng/L	P411974	
		Napropamide**	0.39	U	ng/L	P411974	
		Norflurazon	0.49	U	ng/L	P411974	
		Oxadiazon	0.29	U	ng/L	P411974	
		Oxyfluorfen**	0.15	U	ng/L	P411974	
		Parathion Ethyl	0.24	U	ng/L	P411974	
		Parathion Methyl	0.54	U	ng/L	P411974	
		Pendimethalin	0.97	U	ng/L	P411974	
		Phenytol**	3.4	U	ng/L	P411974	
		Phorate	0.51	U	ng/L	P411974	
		Prodiamine**	0.17	U	ng/L	P411974	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2315461	EPA 8270E	Prometon	0.88	U	ng/L	P411974	
		Prometryn	0.19	U	ng/L	P411974	
		Pronamide**	0.15	U	ng/L	P411974	
		Propanil**	0.12	U	ng/L	P411974	
		Propargite**	1.5	U	ng/L	P411974	
		Propiconazole**	0.49	U	ng/L	P411974	
		Pyraflufen Ethyl**	0.24	UJ	ng/L	P411974	LCS
		Pyridaben**	0.44	U	ng/L	P411974	
		Pyriproxyfen**	0.12	U	ng/L	P411974	
		Simazine	0.49	U	ng/L	P411974	
		Stirophos**	0.23	I	ng/L	P411974	
		Sulfentrazone**	0.49	U	ng/L	P411974	
		Tebuconazole**	0.49	UJ	ng/L	P411974	RPD
		Terbufos	0.097	U	ng/L	P411974	
		Terbutylazine	0.41	U	ng/L	P411974	
		Thiobencarb**	0.58	U	ng/L	P411974	
		Triadimefon**	0.24	U	ng/L	P411974	
2315462	EPA 200.7 Rev. 4.4	Calcium	1.70		mg/L	P411932	
		Iron	610		ug/L	P411932	
		Magnesium	1.0		mg/L	P411932	
		Potassium	0.59	I	mg/L	P411932	
		Sodium	1.9	I	mg/L	P411932	
		Strontium	14.1		ug/L	P411932	
		Tin	3.0	U	ug/L	P411932	
		Titanium	1.1	I	ug/L	P411932	
		Vanadium	2.0	U	ug/L	P411932	
		Zinc	5.0	U	ug/L	P411932	
	EPA 200.8 Rev. 5.4	Aluminum	150		ug/L	P411932	
		Antimony	0.050	U	ug/L	P411932	
		Arsenic	0.30		ug/L	P411932	
		Barium	30.9		ug/L	P411932	
		Beryllium	0.088		ug/L	P411932	
		Boron**	8.3		ug/L	P411932	
		Cadmium	0.020	U	ug/L	P411932	
		Chromium	0.40	U	ug/L	P411932	
		Cobalt	0.973		ug/L	P411932	
		Copper	0.40	U	ug/L	P411932	
		Lead	0.20	U	ug/L	P411932	
		Manganese	34.8		ug/L	P411932	
		Molybdenum	0.15	U	ug/L	P411932	
		Nickel	0.75	I	ug/L	P411932	
		Selenium	0.20	U	ug/L	P411932	
		Silver	0.010	U	ug/L	P411932	
		Thallium	0.10	U	ug/L	P411932	
	SM 2340 B-2011	Hardness	8.3		mg/L	P411932	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
-----------	-------------	-----------	--------	------	-------	----------	----------

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Sample expired for preparation for octinoxate and avobenzone due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes. Sample expired for preparation for caffeine due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes in re-extraction.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P411757

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411772

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411932

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: P411932

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: P411907

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: P411910

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412024

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412168

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412169

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412172

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411800

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411939

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

Reference Method: EPA 8270E
Batch ID: P411871

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411871

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411871

Component	Result	Code	Units
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	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlorthane	0.30	U	ng/L
Oxychlorthane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411974

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
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411974

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P411974

Component	Result	Code	Units
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	0.45	I	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
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
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
Sulfentrazole	0.50	U	ng/L
Sulfentrazole	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
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P411974

Component	Result	Code	Units
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: P412360

Component	Result	Code	Units
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L

Reference Method: EPA 8276
Batch ID: P411871

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: P411836

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: P411856

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P411856

Component	Result	Code	Units
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: EPA 8321B

Batch ID: P411857

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 2320 B-2011

Batch ID: P411968

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

Reference Method: SM 2540 C-2011

Batch ID: P412030

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P411902

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P411972

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P412045

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: P411757

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411772

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	105		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	101		P	85 - 115
Sodium	101		P	85 - 115
Strontium	102		P	85 - 115
Tin	105		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	98.7		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	99.7		P	85 - 115
Arsenic	100		P	85 - 115
Barium	103		P	85 - 115
Beryllium	95.4		P	85 - 115
Boron	100		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	95.4		P	85 - 115
Cobalt	98.1		P	85 - 115
Copper	95.6		P	85 - 115
Lead	97.1		P	85 - 115
Manganese	96.5		P	85 - 115
Molybdenum	98.2		P	85 - 115
Nickel	97.4		P	85 - 115
Selenium	98.8		P	85 - 115
Silver	99.3		P	85 - 115
Thallium	98.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411907

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411910

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412024

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412168

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412169

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412172

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411939

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

Reference Method: EPA 8270E
Batch ID: P411871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	64.5		P	10 - 93.0
Alpha-BHC	95.6		P	75 - 106
Alpha-Chlordane	89.8		P	50 - 109
Beta-BHC	124		P	65 - 135
Beta-Cyfluthrin	94.3		P	23 - 167
Bifenthrin	69.8		P	11 - 123
Chlorothalonil	86.4		P	26 - 182
Cis-Nonachlor	82.2		P	40 - 111
Cypermethrin	99.4		P	25 - 155
Dacthal	101		P	73 - 112

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P411871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDD-p,p'	73.8		P	47 - 108
DDE-p,p'	90.0		P	48 - 107
DDT-p,p'	88.2		P	49 - 111
Delta-BHC	124		P	68 - 143
Deltamethrin	110		P	16 - 176
Dichlobenil	93.4		P	32 - 113
Dicofol	82.8		P	50 - 108
Dieldrin	95.7		P	56 - 110
Endosulfan I	93.2		P	60 - 105
Endosulfan II	101		P	50 - 120
Endosulfan Sulfate	104		P	55 - 121
Endrin	95.3		P	31 - 119
Endrin Aldehyde	96.3		P	36 - 116
Endrin Ketone	110		P	56 - 130
Esfenvalerate	92.4		P	10 - 179
Ethalfuralin	86.1		P	49 - 99.0
Fenpropathrin	94.7		P	35 - 119
Gamma-BHC	109		P	72 - 115
Gamma-Chlordane	89.9		P	45 - 107
Heptachlor	85.1		P	41 - 100
Heptachlor Epoxide	97.4		P	58 - 106
Hexachlorobenzene	89.4		P	39 - 100
Kepone	113		P	10 - 191
Lambda-Cyhalothrin	83.8		P	10 - 186
Methoprene	67.8		P	10 - 129
Methoxychlor	107		P	61 - 111
MGK-264	88.7		P	20 - 123
Mirex	69.2		P	10 - 182
Oxychlordane	89.3		P	39 - 110
PCB-1016	75.8		P	49 - 111
PCB-1260	103		P	42 - 116
Permethrin	98.6		P	26 - 152
Phenothrin	72.8		P	10 - 109
Piperonyl Butoxide	112		P	27 - 142
Prallethrin	82.6		P	14 - 109
Tau-Fluvalinate	79.4		P	16 - 134
Tetramethrin	108		P	10 - 125
Trans-Nonachlor	91.4		P	45 - 107
Triclosan Methyl	94.3		P	60 - 110
Trifluralin	86.9		P	49 - 98.0

Reference Method: EPA 8270E
Batch ID: P411974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	106		P	70 - 121
Alachlor	92.9		P	68 - 119
Ametryn	109		P	64 - 139
Atrazine	91.2		P	76 - 120
Atrazine Desethyl	66.0		P	44 - 126
Azinphos Methyl	74.7		P	43 - 192
Azoxystrobin	86.8		P	36 - 224

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P411974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromacil	111		P	52 - 121
Butylate	63.6		P	28 - 91.0
Carbophenothion	111		P	56 - 129
Carfentrazone Ethyl	126		P	60 - 141
Chlorfenapyr	83.6		P	56 - 115
Chlorpyrifos Ethyl	93.9		P	60 - 118
Chlorpyrifos Methyl	90.6		P	68 - 119
Coumaphos	178		P	18 - 250
Cyanazine	181		P	61 - 250
Cyprodinil	123		P	55 - 145
Demeton	72.7		P	30 - 159
Diazinon	104		P	70 - 123
Difenoconazole	85.7		P	49 - 204
Dimethenamid	85.7		P	64 - 115
Dimethomorph	97.2		P	12 - 219
Disulfoton	81.4		P	44 - 125
Dithiopyr	98.2		P	64 - 115
EPTC	59.6		P	28 - 86.0
Ethion	81.5		P	33 - 125
Ethoprop	91.2		P	64 - 116
Etridiazole	75.4		P	34 - 91.0
Fenamiphos	106		P	12 - 127
Fenbuconazole	149		P	59 - 151
Fipronil	107		P	67 - 129
Fipronil Desulfinyl	103		P	65 - 127
Fipronil Sulfide	87.1		P	61 - 116
Fipronil Sulfone	105		P	55 - 117
Fluazifop-P-butyl	93.5		P	62 - 127
Fludioxonil	116		P	62 - 128
Flumioxazin	135		P	33 - 250
Flutolanil	94.3		P	56 - 127
Fluxapyroxad	75.0		P	45 - 128
Fonofos	84.3		P	62 - 111
Hexazinone	94.8		P	46 - 139
Imazalil	65.6		P	38 - 142
Iprodione	88.9		P	47 - 135
Loratadine	62.6		P	10 - 244
Malathion	108		P	61 - 139
Metalaxyl	89.2		P	10 - 119
Metolachlor	100		P	65 - 118
Metribuzin	85.0		P	51 - 250
Mevinphos	81.1		P	53 - 121
Molinate	72.2		P	42 - 96.0
Myclobutanil	110		P	55 - 128
Naled	86.8		P	10 - 98.0
Napropamide	87.4		P	49 - 121
Norflurazon	61.4		P	61 - 126
Oxadiazon	92.4		P	59 - 116
Oxybenzone	88.8		P	61 - 139
Oxyfluorfen	113		P	64 - 137
Parathion Ethyl	92.6		P	70 - 112
Parathion Methyl	101		P	76 - 133

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P411974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	80.2		P	52 - 117
Phenytoin	133		P	10 - 199
Phorate	91.1		P	48 - 121
Prodiamine	130		P	26 - 142
Prometon	120		P	43 - 123
Prometryn	113		P	66 - 127
Pronamide	101		P	75 - 121
Propanil	92.8		P	45 - 150
Propargite	159		P	42 - 208
Propiconazole	67.8		P	60 - 125
Pyraflufen Ethyl	141		F	70 - 138
Pyridaben	205		P	35 - 245
Pyriproxyfen	90.6		P	30 - 149
Simazine	93.9		P	72 - 125
Stirophos	89.6		P	29 - 164
Sulfentrazone	98.7		P	21 - 139
Tebuconazole	45.9		P	10 - 115
Terbufos	108		P	60 - 123
Terbutylazine	89.4		P	72 - 115
Thiobencarb	95.5		P	31 - 139
Triadimefon	87.7		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P412360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Avobenzone	121	96.2	P/P	76 - 212
Caffeine	81.0	76.9	P/P	50 - 134
Octinoxate	124	101	P/P	30 - 159

Reference Method: EPA 8276
Batch ID: P411871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	87.5		P	61 - 118
Toxaphene	74.4		P	51 - 122

Reference Method: EPA 8321B
Batch ID: P411836

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.5		P	40 - 150
AMPA	122		P	40 - 150
Endothall	65.7		P	40 - 150
Glufosinate	108		P	40 - 150
Glyphosate	120		P	40 - 150
Sucralose	88.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P411856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P411856

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	65.5		P	30 - 160
2,4,5-T	56.7		P	30 - 160
Acetaminophen	57.6		P	30 - 150
Acetamiprid	85.4		P	30 - 160
Afidopyropen	50.0		P	30 - 160
Bentazon	132		P	30 - 150
Benzovindiflupyr	83.3		P	30 - 160
Carbamazepine	77.8		P	30 - 160
Clothianidin	96.5		P	30 - 160
Dinotefuran	85.7		P	30 - 160
Diuron	75.6		P	30 - 160
Fenuron	117		P	30 - 160
Fluridone	77.6		P	30 - 160
Hydrocodone	89.3		P	30 - 160
Ibuprofen	80.7		P	30 - 160
Imazapyr	92.7		P	30 - 160
Imidacloprid	97.4		P	30 - 160
Linuron	63.1		P	30 - 160
Mandestrobin	82.6		P	30 - 160
MCPP	74.2		P	30 - 160
Naproxen	52.2		P	30 - 160
Primidone	101		P	30 - 160
Pyraclostrobin	73.1		P	30 - 160
Silvex	52.8		P	30 - 160
Thiamethoxam	85.0		P	30 - 160
Tolfenpyrad	49.2		P	30 - 160
Triclopyr	57.9		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P411857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	83.2		P	40 - 150
Aldicarb	57.4		P	30 - 150
Aldicarb Sulfone	93.6		P	40 - 150
Aldicarb Sulfoxide	90.4		P	40 - 150
Carbaryl	83.4		P	40 - 150
Carbofuran	98.0		P	40 - 150
Methiocarb	77.4		P	40 - 150
Methomyl	89.4		P	40 - 150
Oxamyl	92.4		P	40 - 150
Propoxur	82.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P411968

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P411972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P412045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P411932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315462	Calcium	105	104	P/P	80 - 120
2315462	Iron	105	105	P/P	80 - 120
2315462	Magnesium	106	106	P/P	80 - 120
2315462	Potassium	102	102	P/P	80 - 120
2315462	Sodium	103	102	P/P	80 - 120
2315462	Strontium	106	104	P/P	80 - 120
2315462	Tin	105	106	P/P	80 - 120
2315462	Titanium	102	104	P/P	80 - 120
2315462	Vanadium	98.4	99.9	P/P	80 - 120
2315462	Zinc	105	105	P/P	80 - 120
2315465	Calcium	102		P	80 - 120
2315465	Iron	103		P	80 - 120
2315465	Magnesium	104		P	80 - 120
2315465	Potassium	102		P	80 - 120
2315465	Sodium	101		P	80 - 120
2315465	Strontium	104		P	80 - 120
2315465	Tin	106		P	80 - 120
2315465	Titanium	104		P	80 - 120
2315465	Vanadium	99.6		P	80 - 120
2315465	Zinc	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315462	Aluminum	106	108	P/P	80 - 120
2315462	Antimony	101	101	P/P	80 - 120
2315462	Arsenic	102	102	P/P	80 - 120
2315462	Barium	105	107	P/P	80 - 120
2315462	Beryllium	95.5	98.9	P/P	80 - 120
2315462	Boron	104	104	P/P	80 - 120
2315462	Cadmium	102	103	P/P	80 - 120
2315462	Chromium	99.6	100	P/P	80 - 120
2315462	Cobalt	100	101	P/P	80 - 120
2315462	Copper	100	101	P/P	80 - 120
2315462	Lead	100	100	P/P	80 - 120
2315462	Manganese	97.5	101	P/P	80 - 120
2315462	Molybdenum	101	101	P/P	80 - 120
2315462	Nickel	100	100	P/P	80 - 120
2315462	Selenium	101	102	P/P	80 - 120
2315462	Silver	101	101	P/P	80 - 120
2315462	Thallium	102	103	P/P	80 - 120
2315465	Aluminum	103		P	80 - 120
2315465	Antimony	102		P	80 - 120
2315465	Arsenic	103		P	80 - 120
2315465	Barium	106		P	80 - 120
2315465	Beryllium	98.3		P	80 - 120
2315465	Boron	104		P	80 - 120
2315465	Cadmium	102		P	80 - 120
2315465	Chromium	98.9		P	80 - 120
2315465	Cobalt	102		P	80 - 120
2315465	Copper	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315465	Lead	99.5		P	80 - 120
2315465	Manganese	100		P	80 - 120
2315465	Molybdenum	102		P	80 - 120
2315465	Nickel	103		P	80 - 120
2315465	Selenium	99.9		P	80 - 120
2315465	Silver	101		P	80 - 120
2315465	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411907

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315405	Chloride	97.3		P	90 - 110
2315497	Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315405	Sulfate	99.4		P	90 - 110
2315497	Sulfate	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315476	Ammonia-N	96.2	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315097	Kjeldahl Nitrogen	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315163	Kjeldahl Nitrogen	106	116	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315207	Kjeldahl Nitrogen	93.7	93.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315447	NO2NO3-N	93.5	93.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315408	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P411871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315390	PCB-1016	88.3	80.6	P/P	46 - 110
2315390	PCB-1260	116	108	F/P	42 - 111
2315862	Aldrin	62.4	63.8	P/P	10 - 89.0
2315862	Alpha-BHC	90.5	89.2	P/P	71 - 105
2315862	Alpha-Chlordane	86.2	87.4	P/P	43 - 107
2315862	Beta-BHC	127	125	P/P	57 - 152
2315862	Beta-Cyfluthrin	110	108	P/P	29 - 186
2315862	Bifenthrin	85.2	84.2	P/P	19 - 119
2315862	Chlorothalonil	197	174	P/P	10 - 245
2315862	Cis-Nonachlor	68.6	69.2	P/P	36 - 110
2315862	Cypermethrin	112	108	P/P	24 - 169
2315862	Dacthal	93.0	94.2	P/P	62 - 115
2315862	DDD-p,p'	60.2	62.1	P/P	36 - 109
2315862	DDE-p,p'	80.3	79.8	P/P	30 - 114
2315862	DDT-p,p'	82.7	82.2	P/P	42 - 108
2315862	Delta-BHC	140	131	P/P	60 - 164
2315862	Deltamethrin	142	137	P/P	10 - 210
2315862	Dichlobenil	96.1	94.6	P/P	23 - 108
2315862	Dicofol	80.0	79.4	P/P	44 - 109
2315862	Dieldrin	84.0	84.9	P/P	37 - 119
2315862	Endosulfan I	85.5	85.2	P/P	52 - 105
2315862	Endosulfan II	83.4	84.9	P/P	35 - 127
2315862	Endosulfan Sulfate	104	94.4	P/P	39 - 130
2315862	Endrin	80.0	83.8	P/P	30 - 116
2315862	Endrin Aldehyde	47.4	66.5	P/P	20 - 110
2315862	Endrin Ketone	120	117	P/P	48 - 134
2315862	Esfenvalerate	127	119	P/P	10 - 199
2315862	Ethalfuralin	79.9	80.2	P/P	48 - 95.0
2315862	Fenpropathrin	102	101	P/P	37 - 121
2315862	Gamma-BHC	98.3	96.6	P/P	61 - 126
2315862	Gamma-Chlordane	85.2	85.2	P/P	39 - 105
2315862	Heptachlor	78.9	77.9	P/P	38 - 96.0
2315862	Heptachlor Epoxide	89.4	89.0	P/P	42 - 114
2315862	Hexachlorobenzene	82.5	81.1	P/P	39 - 93.0
2315862	Kepone	181	126	P/P	10 - 215
2315862	Lambda-Cyhalothrin	107	108	P/P	10 - 204
2315862	Methoprene	74.4	70.4	P/P	17 - 108
2315862	Methoxychlor	113	111	P/P	56 - 115
2315862	MGK-264	86.4	84.3	P/P	35 - 120
2315862	Mirex	70.0	70.0	P/P	10 - 178
2315862	Oxychlordane	89.1	84.0	P/P	47 - 91.0
2315862	Permethrin	113	108	P/P	27 - 170
2315862	Phenothrin	91.1	91.9	P/P	10 - 133
2315862	Piperonyl Butoxide	97.7	99.4	P/P	23 - 150
2315862	Prallethrin	78.6	72.9	P/P	21 - 113
2315862	Tau-Fluvalinate	110	106	P/P	16 - 158

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P411871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315862	Tetramethrin	121	120	P/P	22 - 132
2315862	Trans-Nonachlor	81.2	88.8	P/P	43 - 102
2315862	Triclosan Methyl	81.9	81.0	P/P	49 - 109
2315862	Trifluralin	82.0	80.5	P/P	48 - 93.0

Reference Method: EPA 8270E
 Batch ID: P411974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315461	Acetochlor	106	109	P/P	65 - 124
2315461	Alachlor	94.9	94.6	P/P	61 - 121
2315461	Ametryn	125	110	P/P	52 - 216
2315461	Atrazine	105	105	P/P	68 - 133
2315461	Atrazine Desethyl	68.2	73.3	P/P	15 - 160
2315461	Azinphos Methyl	86.5	85.4	P/P	40 - 292
2315461	Azoxystrobin	117	121	P/P	12 - 242
2315461	Bromacil	123	112	P/P	54 - 167
2315461	Butylate	39.9	34.7	P/P	14 - 94.0
2315461	Carbophenothion	127	109	F/P	49 - 122
2315461	Carfentrazone Ethyl	131	132	P/P	53 - 138
2315461	Chlorfenapyr	87.1	84.0	P/P	50 - 150
2315461	Chlorpyrifos Ethyl	103	94.2	P/P	52 - 122
2315461	Chlorpyrifos Methyl	97.1	91.4	P/P	66 - 117
2315461	Coumaphos	201	184	P/P	50 - 220
2315461	Cyanazine	176	146	P/P	43 - 245
2315461	Cyprodinil	132	131	P/P	50 - 150
2315461	Demeton	89.2	79.9	P/P	43 - 188
2315461	Diazinon	108	106	P/P	69 - 131
2315461	Difenoconazole	100	109	P/P	34 - 231
2315461	Dimethenamid	85.5	85.3	P/P	55 - 118
2315461	Dimethomorph	112	115	P/P	50 - 150
2315461	Disulfoton	94.5	87.2	P/P	38 - 141
2315461	Dithiopyr	98.3	105	P/P	42 - 116
2315461	EPTC	36.4	32.4	P/P	18 - 85.0
2315461	Ethion	95.4	88.8	P/P	10 - 131
2315461	Ethoprop	96.1	93.0	P/P	65 - 129
2315461	Etridiazole	59.3	51.8	P/P	50 - 150
2315461	Fenamiphos	125	113	P/P	31 - 137
2315461	Fenbuconazole	142	156	P/P	57 - 160
2315461	Fipronil	116	116	P/P	62 - 132
2315461	Fipronil Desulfinyl	98.7	96.3	P/P	57 - 131
2315461	Fipronil Sulfide	99.4	89.2	P/P	15 - 138
2315461	Fipronil Sulfone	121	110	P/P	21 - 134
2315461	Fluazifop-P-butyl	98.3	93.4	P/P	54 - 133
2315461	Fludioxonil	121	117	P/P	58 - 127
2315461	Flumioxazin	195	117	P/P	33 - 300
2315461	Flutolanil	102	95.8	P/P	42 - 130
2315461	Fluxapyroxad	59.7	73.8	P/P	23 - 141
2315461	Fonofos	97.4	92.5	P/P	58 - 119
2315461	Hexazinone	104	104	P/P	68 - 172
2315461	Imazalil	79.3	79.9	P/P	48 - 283
2315461	Iprodione	82.3	96.3	P/P	38 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P411974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315461	Loratadine	79.0	91.4	P/P	50 - 150
2315461	Malathion	118	111	P/P	40 - 137
2315461	Metalaxyl	88.8	93.2	P/P	21 - 129
2315461	Metolachlor	104	109	P/P	55 - 122
2315461	Metribuzin	101	82.5	P/P	38 - 187
2315461	Mevinphos	81.9	81.4	P/P	54 - 134
2315461	Molinate	58.7	56.4	P/P	41 - 97.0
2315461	Myclobutanil	115	118	P/P	56 - 125
2315461	Naled	89.0	75.8	P/P	10 - 108
2315461	Napropamide	91.5	88.3	P/P	50 - 150
2315461	Norflurazon	77.9	82.5	P/P	32 - 122
2315461	Oxadiazon	83.3	92.1	P/P	40 - 119
2315461	Oxybenzone	101	91.5	P/P	59 - 147
2315461	Oxyfluorfen	124	119	P/P	61 - 153
2315461	Parathion Ethyl	96.8	104	P/P	59 - 130
2315461	Parathion Methyl	107	113	P/P	65 - 155
2315461	Pendimethalin	99.0	102	P/P	49 - 138
2315461	Phenytoin	136	145	P/P	50 - 200
2315461	Phorate	101	91.3	P/P	54 - 161
2315461	Prodiamine	74.6	63.9	P/P	33 - 161
2315461	Prometon	136	125	P/P	48 - 140
2315461	Prometryn	126	118	P/P	55 - 134
2315461	Pronamide	118	112	P/P	66 - 137
2315461	Propanil	90.3	92.1	P/P	50 - 150
2315461	Propargite	166	156	P/P	50 - 200
2315461	Propiconazole	139	140	P/P	36 - 150
2315461	Pyraflufen Ethyl	148	125	P/P	50 - 150
2315461	Pyridaben	101	103	P/P	50 - 200
2315461	Pyriproxyfen	90.1	104	P/P	10 - 165
2315461	Simazine	101	100	P/P	57 - 145
2315461	Stirophos	97.3	82.9	P/P	50 - 150
2315461	Sulfentrazone	75.2	83.6	P/P	34 - 140
2315461	Tebuconazole	44.8	82.7	P/P	10 - 127
2315461	Terbufos	120	112	P/P	59 - 138
2315461	Terbuthylazine	99.3	97.2	P/P	68 - 119
2315461	Thiobencarb	97.4	99.7	P/P	50 - 150
2315461	Triadimefon	93.9	94.7	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P412360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315732	Avobenzone	118		P	59 - 206
2315732	Caffeine	94.9		P	10 - 226
2315732	Octinoxate	64.7		P	25 - 150

Reference Method: EPA 8276
Batch ID: P411871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315390	Chlordane	88.5	88.6	P/P	55 - 128
2315390	Toxaphene	77.3	79.8	P/P	57 - 211

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P411836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315345	Acesulfame K	125	120	P/P	40 - 150
2315345	AMPA	86.9	109	P/P	40 - 150
2315345	Endothall	87.6	86.5	P/P	40 - 150
2315345	Glufosinate	98.7	112	P/P	40 - 150
2315345	Glyphosate	77.4	86.5	P/P	40 - 150
2315345	Sucralose	96.1	90.9	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P411856

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315310	2,4-D	71.1	73.6	P/P	30 - 160
2315310	2,4,5-T	60.7	56.7	P/P	30 - 160
2315310	Acetaminophen	96.2	92.4	P/P	30 - 150
2315310	Acetamiprid	87.8	103	P/P	30 - 160
2315310	Afidopyropen	61.1	69.5	P/P	30 - 160
2315310	Bentazon	108	124	P/P	30 - 150
2315310	Benzovindiflupyr	81.0	86.5	P/P	30 - 160
2315310	Carbamazepine	92.8	92.6	P/P	30 - 160
2315310	Clothianidin	106	111	P/P	30 - 160
2315310	Dinotefuran	109	115	P/P	30 - 160
2315310	Diuron	69.9	82.1	P/P	30 - 160
2315310	Fenuron	117	126	P/P	30 - 160
2315310	Fluridone	74.7	80.3	P/P	30 - 160
2315310	Hydrocodone	95.7	113	P/P	30 - 160
2315310	Ibuprofen	48.2	48.1	P/P	30 - 160
2315310	Imazapyr	82.7	105	P/P	30 - 160
2315310	Imidacloprid	101	123	P/P	30 - 160
2315310	Linuron	75.8	81.4	P/P	30 - 160
2315310	Mandestrobin	82.5	90.0	P/P	30 - 160
2315310	MCPP	79.6	80.9	P/P	30 - 160
2315310	Naproxen	66.2	63.1	P/P	30 - 160
2315310	Primidone	66.6	123	P/P	30 - 160
2315310	Pyraclostrobin	72.4	77.3	P/P	30 - 160
2315310	Silvex	58.0	61.7	P/P	30 - 160
2315310	Thiamethoxam	100	124	P/P	30 - 160
2315310	Tolfenpyrad	46.2	38.0	P/P	30 - 160
2315310	Triclopyr	66.6	71.9	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P411857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315482	3-Hydroxycarbofuran	105	107	P/P	40 - 150
2315482	Aldicarb	86.0	73.0	P/P	30 - 150
2315482	Aldicarb Sulfone	122	108	P/P	40 - 150
2315482	Aldicarb Sulfoxide	52.1	48.2	P/P	40 - 150
2315482	Carbaryl	70.9	69.8	P/P	40 - 150
2315482	Carbofuran	94.6	83.6	P/P	40 - 150
2315482	Methiocarb	67.5	71.9	P/P	40 - 150
2315482	Methomyl	94.9	90.1	P/P	40 - 150
2315482	Oxamyl	102	97.2	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P411857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315482	Propoxur	88.2	87.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P411972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315505	Fluoride	101	101	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P412045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315447	Organic Carbon	97.7	97.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P411757

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315446	Color (true)	0.152	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P411772

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315333	Turbidity	1.41	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411932

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315462	Calcium	0.761	Spike	P	0 - 20
2315462	Iron	0.371	Spike	P	0 - 20
2315462	Magnesium	0.153	Spike	P	0 - 20
2315462	Potassium	0.0148	Spike	P	0 - 20
2315462	Sodium	0.774	Spike	P	0 - 20
2315462	Strontium	2.12	Spike	P	0 - 20
2315462	Tin	1.19	Spike	P	0 - 20
2315462	Titanium	1.84	Spike	P	0 - 20
2315462	Vanadium	1.53	Spike	P	0 - 20
2315462	Zinc	0.00727	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411932

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315462	Aluminum	1.56	Spike	P	0 - 20
2315462	Antimony	0.0923	Spike	P	0 - 20
2315462	Arsenic	0.204	Spike	P	0 - 20
2315462	Barium	1.42	Spike	P	0 - 20
2315462	Beryllium	2.85	Spike	P	0 - 20
2315462	Boron	0.206	Spike	P	0 - 20
2315462	Cadmium	1.66	Spike	P	0 - 20
2315462	Chromium	0.354	Spike	P	0 - 20
2315462	Cobalt	0.564	Spike	P	0 - 20
2315462	Copper	0.627	Spike	P	0 - 20
2315462	Lead	0.131	Spike	P	0 - 20
2315462	Manganese	1.77	Spike	P	0 - 20
2315462	Molybdenum	0.248	Spike	P	0 - 20
2315462	Nickel	0.0905	Spike	P	0 - 20
2315462	Selenium	0.789	Spike	P	0 - 20
2315462	Silver	0.551	Spike	P	0 - 20
2315462	Thallium	0.567	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411907

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315405	Chloride	0.933	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315405	Sulfate	0.390	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315476	Ammonia-N	1.74	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315097	Kjeldahl Nitrogen	0.0495	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315163	Kjeldahl Nitrogen	7.04	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315207	Kjeldahl Nitrogen	0.491	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315447	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315408	Total-P	0.146	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
 Batch ID: P411871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315390	PCB-1016	9.13	Spike	P	0 - 32
2315390	PCB-1260	7.19	Spike	P	0 - 31
2315862	Aldrin	2.23	Spike	P	0 - 37
2315862	Alpha-BHC	1.40	Spike	P	0 - 16
2315862	Alpha-Chlordane	1.37	Spike	P	0 - 28
2315862	Beta-BHC	1.51	Spike	P	0 - 32
2315862	Beta-Cyfluthrin	2.14	Spike	P	0 - 41
2315862	Bifenthrin	1.23	Spike	P	0 - 36
2315862	Chlorothalonil	12.2	Spike	P	0 - 54
2315862	Cis-Nonachlor	0.907	Spike	P	0 - 33
2315862	Cypermethrin	3.06	Spike	P	0 - 38
2315862	Dacthal	1.29	Spike	P	0 - 23
2315862	DDD-p,p'	3.09	Spike	P	0 - 35
2315862	DDE-p,p'	0.605	Spike	P	0 - 27
2315862	DDT-p,p'	0.607	Spike	P	0 - 31
2315862	Delta-BHC	6.23	Spike	P	0 - 30
2315862	Deltamethrin	3.85	Spike	P	0 - 76
2315862	Dichlobenil	1.52	Spike	P	0 - 33
2315862	Dicofol	0.693	Spike	P	0 - 24
2315862	Dieldrin	1.14	Spike	P	0 - 35
2315862	Endosulfan I	0.413	Spike	P	0 - 25
2315862	Endosulfan II	1.76	Spike	P	0 - 31
2315862	Endosulfan Sulfate	10.1	Spike	P	0 - 38
2315862	Endrin	4.60	Spike	P	0 - 53
2315862	Endrin Aldehyde	33.7	Spike	P	0 - 81
2315862	Endrin Ketone	2.73	Spike	P	0 - 33
2315862	Esfenvalerate	6.85	Spike	P	0 - 46
2315862	Ethalfuralin	0.349	Spike	P	0 - 22
2315862	Fenpropathrin	0.987	Spike	P	0 - 29
2315862	Gamma-BHC	1.70	Spike	P	0 - 17
2315862	Gamma-Chlordane	0.0605	Spike	P	0 - 28
2315862	Heptachlor	1.23	Spike	P	0 - 28
2315862	Heptachlor Epoxide	0.459	Spike	P	0 - 23
2315862	Hexachlorobenzene	1.64	Spike	P	0 - 22
2315862	Kepone	35.7	Spike	P	0 - 61
2315862	Lambda-Cyhalothrin	1.49	Spike	P	0 - 52
2315862	Methoprene	5.47	Spike	P	0 - 38
2315862	Methoxychlor	2.58	Spike	P	0 - 29
2315862	MGK-264	2.45	Spike	P	0 - 41
2315862	Mirex	0.0112	Spike	P	0 - 39
2315862	Oxychlordane	5.88	Spike	P	0 - 33
2315862	Permethrin	3.83	Spike	P	0 - 39
2315862	Phenothrin	0.854	Spike	P	0 - 52
2315862	Piperonyl Butoxide	1.68	Spike	P	0 - 91
2315862	Prallethrin	7.43	Spike	P	0 - 34
2315862	Tau-Fluvalinate	3.90	Spike	P	0 - 41
2315862	Tetramethrin	0.903	Spike	P	0 - 43
2315862	Trans-Nonachlor	9.01	Spike	P	0 - 31
2315862	Triclosan Methyl	1.10	Spike	P	0 - 24
2315862	Trifluralin	1.79	Spike	P	0 - 23

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315461	Acetochlor	2.45	Spike	P	0 - 27
2315461	Alachlor	0.313	Spike	P	0 - 27
2315461	Ametryn	12.5	Spike	P	0 - 34
2315461	Atrazine	0.134	Spike	P	0 - 41
2315461	Atrazine Desethyl	7.12	Spike	P	0 - 38
2315461	Azinphos Methyl	1.28	Spike	P	0 - 62
2315461	Azoxystrobin	3.21	Spike	P	0 - 32
2315461	Bromacil	9.26	Spike	P	0 - 30
2315461	Butylate	14.1	Spike	P	0 - 59
2315461	Carbophenothion	14.7	Spike	P	0 - 25
2315461	Carfentrazone Ethyl	0.804	Spike	P	0 - 26
2315461	Chlorfenapyr	3.63	Spike	P	0 - 30
2315461	Chlorpyrifos Ethyl	8.71	Spike	P	0 - 27
2315461	Chlorpyrifos Methyl	6.02	Spike	P	0 - 26
2315461	Coumaphos	9.08	Spike	P	0 - 30
2315461	Cyanazine	19.0	Spike	P	0 - 58
2315461	Cyprodinil	0.476	Spike	P	0 - 30
2315461	Demeton	11.1	Spike	P	0 - 25
2315461	Diazinon	1.44	Spike	P	0 - 29
2315461	Difenoconazole	8.49	Spike	P	0 - 25
2315461	Dimethenamid	0.246	Spike	P	0 - 30
2315461	Dimethomorph	2.29	Spike	P	0 - 30
2315461	Disulfoton	8.02	Spike	P	0 - 33
2315461	Dithiopyr	6.39	Spike	P	0 - 22
2315461	EPTC	11.5	Spike	P	0 - 38
2315461	Ethion	7.12	Spike	P	0 - 79
2315461	Ethoprop	3.26	Spike	P	0 - 23
2315461	Etridiazole	13.5	Spike	P	0 - 30
2315461	Fenamiphos	9.50	Spike	P	0 - 58
2315461	Fenbuconazole	9.17	Spike	P	0 - 37
2315461	Fipronil	0.000537	Spike	P	0 - 33
2315461	Fipronil Desulfinyl	2.41	Spike	P	0 - 26
2315461	Fipronil Sulfide	10.8	Spike	P	0 - 37
2315461	Fipronil Sulfone	9.42	Spike	P	0 - 50
2315461	Fluazifop-P-butyl	5.17	Spike	P	0 - 24
2315461	Fludioxonil	3.80	Spike	P	0 - 26
2315461	Flumioxazin	50.5	Spike	F	0 - 37
2315461	Flutolanil	6.01	Spike	P	0 - 26
2315461	Fluxapyroxad	19.6	Spike	P	0 - 34
2315461	Fonofos	5.22	Spike	P	0 - 27
2315461	Hexazinone	0.481	Spike	P	0 - 36
2315461	Imazalil	0.740	Spike	P	0 - 65
2315461	Iprodione	15.7	Spike	P	0 - 33
2315461	Loratadine	14.6	Spike	P	0 - 30
2315461	Malathion	6.17	Spike	P	0 - 44
2315461	Metalaxyl	4.86	Spike	P	0 - 38
2315461	Metolachlor	3.53	Spike	P	0 - 36
2315461	Metribuzin	20.4	Spike	P	0 - 63
2315461	Mevinphos	0.592	Spike	P	0 - 26
2315461	Molinate	4.11	Spike	P	0 - 40
2315461	Myclobutanil	2.19	Spike	P	0 - 21

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P411974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315461	Naled	16.1	Spike	P	0 - 26
2315461	Napropamide	3.59	Spike	P	0 - 30
2315461	Norflurazon	5.81	Spike	P	0 - 24
2315461	Oxadiazon	10.1	Spike	P	0 - 27
2315461	Oxybenzone	9.44	Spike	P	0 - 30
2315461	Oxyfluorfen	4.29	Spike	P	0 - 24
2315461	Parathion Ethyl	6.96	Spike	P	0 - 28
2315461	Parathion Methyl	5.23	Spike	P	0 - 27
2315461	Pendimethalin	3.15	Spike	P	0 - 31
2315461	Phenytoin	6.19	Spike	P	0 - 30
2315461	Phorate	10.5	Spike	P	0 - 27
2315461	Prodiamine	15.5	Spike	P	0 - 52
2315461	Prometon	8.76	Spike	P	0 - 31
2315461	Prometryn	5.92	Spike	P	0 - 28
2315461	Pronamide	5.16	Spike	P	0 - 26
2315461	Propanil	2.02	Spike	P	0 - 30
2315461	Propargite	6.14	Spike	P	0 - 30
2315461	Propiconazole	0.602	Spike	P	0 - 31
2315461	Pyraflufen Ethyl	16.9	Spike	P	0 - 30
2315461	Pyridaben	2.38	Spike	P	0 - 30
2315461	Pyriproxyfen	14.8	Spike	P	0 - 50
2315461	Simazine	0.252	Spike	P	0 - 29
2315461	Stiropfos	14.9	Spike	P	0 - 30
2315461	Sulfentrazone	10.6	Spike	P	0 - 33
2315461	Tebuconazole	59.4	Spike	F	0 - 44
2315461	Terbufos	6.61	Spike	P	0 - 29
2315461	Terbuthylazine	2.06	Spike	P	0 - 27
2315461	Thiobencarb	2.31	Spike	P	0 - 30
2315461	Triadimefon	0.863	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P412360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Avobenzone	23.1	LCS	P	0 - 30
LFB	Caffeine	5.23	LCS	P	0 - 27
LFB	Octinoxate	21.2	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P411871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315390	Chlordane	0.0836	Spike	P	0 - 25
2315390	Toxaphene	3.18	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P411836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315345	Acesulfame K	4.09	Spike	P	0 - 30
2315345	AMPA	22.9	Spike	P	0 - 30
2315345	Endothall	1.27	Spike	P	0 - 30
2315345	Glufosinate	12.6	Spike	P	0 - 30
2315345	Glyphosate	11.1	Spike	P	0 - 30
2315345	Sucralose	5.56	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P411856

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315310	2,4-D	3.28	Spike	P	0 - 30
2315310	2,4,5-T	6.77	Spike	P	0 - 30
2315310	Acetaminophen	3.96	Spike	P	0 - 30
2315310	Acetamiprid	15.6	Spike	P	0 - 30
2315310	Afidopyropen	12.9	Spike	P	0 - 30
2315310	Bentazon	6.07	Spike	P	0 - 30
2315310	Benzovindiflupyr	6.58	Spike	P	0 - 30
2315310	Carbamazepine	0.0807	Spike	P	0 - 30
2315310	Clothianidin	4.93	Spike	P	0 - 30
2315310	Dinotefuran	4.83	Spike	P	0 - 30
2315310	Diuron	14.6	Spike	P	0 - 30
2315310	Fenuron	7.30	Spike	P	0 - 30
2315310	Fluridone	6.41	Spike	P	0 - 30
2315310	Hydrocodone	16.7	Spike	P	0 - 30
2315310	Ibuprofen	0.364	Spike	P	0 - 30
2315310	Imazapyr	20.7	Spike	P	0 - 30
2315310	Imidacloprid	18.9	Spike	P	0 - 30
2315310	Linuron	7.14	Spike	P	0 - 30
2315310	Mandestrobin	8.62	Spike	P	0 - 30
2315310	MCPP	1.69	Spike	P	0 - 30
2315310	Naproxen	4.70	Spike	P	0 - 30
2315310	Primidone	34.6	Spike	F	0 - 30
2315310	Pyraclostrobin	6.48	Spike	P	0 - 30
2315310	Silvex	6.03	Spike	P	0 - 30
2315310	Thiamethoxam	21.0	Spike	P	0 - 30
2315310	Tolfenpyrad	19.5	Spike	P	0 - 30
2315310	Triclopyr	7.71	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P411857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315482	3-Hydroxycarbofuran	1.57	Spike	P	0 - 30
2315482	Aldicarb	16.4	Spike	P	0 - 30
2315482	Aldicarb Sulfone	12.1	Spike	P	0 - 30
2315482	Aldicarb Sulfoxide	7.73	Spike	P	0 - 30
2315482	Carbaryl	1.52	Spike	P	0 - 30
2315482	Carbofuran	12.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P411857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315482	Methiocarb	6.32	Spike	P	0 - 30
2315482	Methomyl	5.14	Spike	P	0 - 30
2315482	Oxamyl	4.89	Spike	P	0 - 30
2315482	Propoxur	1.14	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P411968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315505	Total Alkalinity	1.79	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P412030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315502	TDS	0.313	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P411972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315505	Fluoride	0.490	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P412045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315447	Organic Carbon	0.593	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2315458
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	93.5	P	30 - 160

Lab Sample ID: 2315459
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	61.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.6	P	30 - 160
EPA 8321B	Diuron-d6	76.0	P	30 - 160
EPA 8321B	Endothall-d6	93.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.2	P	30 - 160
EPA 8321B	Primidone-d5	96.8	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	30 - 160

Lab Sample ID: 2315460
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	51.1	P	38 - 115
EPA 8270E	Decachlorobiphenyl	75.9	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	56.8	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	69.3	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	59.4	P	30 - 97.0
EPA 8276	PCNB	65.8	P	45 - 119

Lab Sample ID: 2315461
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	50.5	P	20 - 200
EPA 8270E	Caffeine-d9	74.8	P	20 - 200
EPA 8270E	Simazine-d10	106	P	71 - 140
EPA 8270E	Simazine-d10	98.5	P	71 - 140
EPA 8270E	Terbufos-d10	99.5	P	62 - 131
EPA 8270E	Terbufos-d10	68.5	P	62 - 131
EPA 8270E	Terphenyl-d14	108	F	55 - 108
EPA 8270E	Terphenyl-d14	132	F	55 - 108

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111208

Included Lab Sample IDs: 2315443, 2315445, 2315446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A111233

Included Lab Sample IDs: 2315443, 2315445, 2315446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111239

Included Lab Sample IDs: 2315443, 2315445, 2315446

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111245

Included Lab Sample IDs: 2315444, 2315447, 2315448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111283

Included Lab Sample IDs: 2315459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	111	P/P	60 - 160
Glufosinate	106	100	P/P	60 - 160
Glyphosate	123	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111286

Included Lab Sample IDs: 2315459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	94.9	102	P/P	60 - 160
Endothall	81.5	96.3	P/P	60 - 160
Sucralose	103	112	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A111305

Included Lab Sample IDs: 2315443, 2315445, 2315446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.0	96.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A111305

Included Lab Sample IDs: 2315443, 2315445, 2315446

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111321

Included Lab Sample IDs: 2315462, 2315463, 2315464, 2315465, 2315466, 2315467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	102	P/P	90 - 110
Aluminum	102	100	P/P	90 - 110
Antimony	101	102	P/P	90 - 110
Antimony	102	103	P/P	90 - 110
Arsenic	102	101	P/P	90 - 110
Arsenic	102	102	P/P	90 - 110
Barium	101	98.6	P/P	90 - 110
Barium	99.5	101	P/P	90 - 110
Beryllium	97.2	98.4	P/P	90 - 110
Beryllium	98.4	98.3	P/P	90 - 110
Boron	98.4	99.0	P/P	90 - 110
Boron	99.0	97.3	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	96.8	97.7	P/P	90 - 110
Chromium	97.7	98.0	P/P	90 - 110
Cobalt	98.6	99.6	P/P	90 - 110
Cobalt	99.6	98.3	P/P	90 - 110
Copper	99.0	99.5	P/P	90 - 110
Copper	99.5	97.3	P/P	90 - 110
Lead	96.8	97.4	P/P	90 - 110
Lead	97.4	96.0	P/P	90 - 110
Manganese	96.3	98.8	P/P	90 - 110
Manganese	98.8	98.4	P/P	90 - 110
Molybdenum	99.0	99.6	P/P	90 - 110
Molybdenum	99.6	98.6	P/P	90 - 110
Nickel	99.0	99.6	P/P	90 - 110
Nickel	99.6	97.7	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Selenium	99.0	102	P/P	90 - 110
Silver	103	104	P/P	90 - 110
Silver	104	103	P/P	90 - 110
Thallium	97.8	98.7	P/P	90 - 110
Thallium	98.7	95.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111326

Included Lab Sample IDs: 2315458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	97.0	106	P/P	60 - 150
Aldicarb	84.0	95.2	P/P	60 - 150
Aldicarb Sulfone	100	107	P/P	50 - 150
Aldicarb Sulfoxide	105	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A111326
Included Lab Sample IDs: 2315458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbaryl	111	97.1	P/P	60 - 150
Carbofuran	106	104	P/P	50 - 150
Methiocarb	97.3	98.7	P/P	50 - 150
Methomyl	102	99.7	P/P	50 - 150
Oxamyl	100	101	P/P	50 - 150
Propoxur	110	112	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A111333
Included Lab Sample IDs: 2315460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	115		P	80 - 120
PCB-1260	124*		F	80 - 120

Reference Method: EPA 8270E
Run ID: A111339
Included Lab Sample IDs: 2315460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.7		P	80 - 120
Alpha-BHC	97.8		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	95.1		P	80 - 120
Bifenthrin	96.2		P	80 - 120
Chlorothalonil	103		P	80 - 120
Cis-Nonachlor	91.5		P	80 - 120
Cypermethrin	94.4		P	80 - 120
Dacthal	95.6		P	80 - 120
DDD-p,p'	92.2		P	80 - 120
DDE-p,p'	96.9		P	80 - 120
DDT-p,p'	99.9		P	80 - 120
Delta-BHC	104		P	80 - 120
Deltamethrin	93.9		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	96.4		P	80 - 120
Dieldrin	97.5		P	80 - 120
Endosulfan I	98.6		P	80 - 120
Endosulfan II	97.5		P	80 - 120
Endosulfan Sulfate	99.8		P	80 - 120
Endrin	97.5		P	80 - 120
Endrin Aldehyde	96.8		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	95.7		P	80 - 120
Ethalfuralin	99.7		P	80 - 120
Fenpropathrin	95.9		P	80 - 120
Gamma-BHC	99.7		P	80 - 120
Gamma-Chlordane	98.2		P	80 - 120
Heptachlor	96.6		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111339
Included Lab Sample IDs: 2315460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexachlorobenzene	103		P	80 - 120
Kepone	97.3		P	80 - 120
Lambda-Cyhalothrin	96.0		P	80 - 120
Methoprene	95.8		P	80 - 120
Methoxychlor	102		P	80 - 120
MGK-264	96.6		P	80 - 120
Mirex	97.1		P	80 - 120
Oxychlordane	97.5		P	80 - 120
Permethrin	98.1		P	80 - 120
Phenothrin	96.6		P	80 - 120
Piperonyl Butoxide	96.7		P	80 - 120
Prallethrin	98.3		P	80 - 120
Tau-Fluvalinate	95.4		P	80 - 120
Tetramethrin	97.9		P	80 - 120
Trans-Nonachlor	97.5		P	80 - 120
Triclosan Methyl	94.6		P	80 - 120
Trifluralin	97.6		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A111345
Included Lab Sample IDs: 2315444, 2315447, 2315448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	99.0	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A111353
Included Lab Sample IDs: 2315444, 2315447, 2315448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	97.2	P/P	90 - 110
Organic Carbon	96.6	96.4	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A111358
Included Lab Sample IDs: 2315459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.8	86.8	P/P	50 - 150
2,4,5-T	78.7	84.7	P/P	50 - 150
Acetaminophen	95.7	91.6	P/P	60 - 160
Acetamiprid	93.7	101	P/P	50 - 150
Afidopyropen	72.2	86.4	P/P	50 - 150
Bentazon	97.3	95.8	P/P	50 - 160
Benzovindiflupyr	79.1	93.5	P/P	50 - 160
Carbamazepine	92.7	94.7	P/P	60 - 150
Clothianidin	100	79.2	P/P	60 - 150
Dinotefuran	96.2	91.5	P/P	50 - 150
Diuron	91.8	103	P/P	60 - 160
Fenuron	92.0	94.3	P/P	60 - 150
Fluridone	89.8	90.5	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A111358
Included Lab Sample IDs: 2315459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	87.3	84.3	P/P	60 - 150
Ibuprofen	91.9	85.7	P/P	50 - 160
Imazapyr	97.0	100	P/P	50 - 150
Imidacloprid	84.2	90.7	P/P	60 - 150
Linuron	105	108	P/P	60 - 150
Mandestrobin	90.2	94.9	P/P	50 - 150
MCPP	76.9	83.9	P/P	50 - 150
Naproxen	124	74.0	P/P	50 - 160
Primidone	104	133	P/P	60 - 150
Pyraclostrobin	92.5	96.8	P/P	60 - 150
Silvex	92.7	101	P/P	50 - 150
Thiamethoxam	94.2	86.7	P/P	50 - 150
Tolfenpyrad	102	104	P/P	60 - 150
Triclopyr	83.4	94.4	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A111374
Included Lab Sample IDs: 2315460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.2		P	80 - 120
Toxaphene	96.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A111387
Included Lab Sample IDs: 2315461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxybenzone	101		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111389
Included Lab Sample IDs: 2315444, 2315447, 2315448

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A111402
Included Lab Sample IDs: 2315462, 2315463, 2315464, 2315465, 2315466, 2315467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	100	104	P/P	90 - 110
Strontium	104	105	P/P	90 - 110
Tin	104	103	P/P	90 - 110
Tin	105	104	P/P	90 - 110
Titanium	103	103	P/P	90 - 110
Titanium	104	103	P/P	90 - 110
Vanadium	103	103	P/P	90 - 110
Vanadium	104	103	P/P	90 - 110
Zinc	104	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111402

Included Lab Sample IDs: 2315462, 2315463, 2315464, 2315465, 2315466, 2315467

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

Reference Method: EPA 8270E

Run ID: A111414

Included Lab Sample IDs: 2315461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	99.1		P	80 - 120
Atrazine	105		P	80 - 120
Atrazine Desethyl	103		P	80 - 120
Azinphos Methyl	105		P	80 - 120
Azoxystrobin	106		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	98.6		P	80 - 120
Carbophenothion	99.0		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	95.9		P	80 - 120
Chlorpyrifos Ethyl	97.7		P	80 - 120
Chlorpyrifos Methyl	98.5		P	80 - 120
Coumaphos	108		P	80 - 120
Cyanazine	107		P	80 - 120
Cyprodinil	103		P	80 - 120
Demeton	99.1		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	119		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	103		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	100		P	80 - 120
Ethion	99.3		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	101		P	80 - 120
Fenbuconazole	107		P	80 - 120
Fipronil	105		P	80 - 120
Fipronil Desulfinyl	106		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fluazifop-P-butyl	107		P	80 - 120
Fludioxonil	113		P	80 - 120
Flutolanil	108		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	104		P	80 - 120
Loratadine	103		P	80 - 120
Malathion	103		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	89.0		P	80 - 120
Mevinphos	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111414
Included Lab Sample IDs: 2315461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molinate	98.6		P	80 - 120
Myclobutanil	107		P	80 - 120
Naled	103		P	80 - 120
Napropamide	104		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	97.1		P	80 - 120
Parathion Ethyl	98.5		P	80 - 120
Parathion Methyl	97.7		P	80 - 120
Pendimethalin	103		P	80 - 120
Phenytol	108		P	80 - 120
Phorate	105		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	104		P	80 - 120
Propargite	101		P	80 - 120
Simazine	105		P	80 - 120
Stirophos	100		P	80 - 120
Terbufos	100		P	80 - 120
Terbutylazine	107		P	80 - 120
Thiobencarb	106		P	80 - 120
Triadimefon	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A111421
Included Lab Sample IDs: 2315461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Etridiazole	94.6		P	80 - 120
Fipronil Sulfone	97.9		P	80 - 120
Flumioxazin	100		P	80 - 120
Fluxapyroxad	102		P	80 - 120
Iprodione	119		P	80 - 120
Norflurazon	105		P	80 - 120
Prodiamine	116		P	80 - 120
Propiconazole	98.6		P	80 - 120
Pyraflufen Ethyl	97.6		P	80 - 120
Pyridaben	100		P	80 - 120
Pyriproxyfen	99.7		P	80 - 120
Sulfentrazone	111		P	80 - 120
Tebuconazole	95.5		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A111453
Included Lab Sample IDs: 2315447

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111463

Included Lab Sample IDs: 2315444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	106	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111501

Included Lab Sample IDs: 2315463, 2315464, 2315466

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.0	102	P/P	90 - 110
Iron	98.7	101	P/P	90 - 110
Magnesium	98.9	101	P/P	90 - 110
Potassium	97.5	98.2	P/P	90 - 110
Sodium	95.5	95.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111523

Included Lab Sample IDs: 2315462, 2315465, 2315467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.0	99.6	P/P	90 - 110
Calcium	99.6	99.5	P/P	90 - 110
Iron	97.8	99.5	P/P	90 - 110
Iron	99.5	99.4	P/P	90 - 110
Magnesium	97.7	99.5	P/P	90 - 110
Magnesium	99.5	99.4	P/P	90 - 110
Potassium	100	99.7	P/P	90 - 110
Potassium	99.4	100	P/P	90 - 110
Sodium	97.5	98.5	P/P	90 - 110
Sodium	98.5	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111528

Included Lab Sample IDs: 2315448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.4	98.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111529

Included Lab Sample IDs: 2315461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	105		P	80 - 120
Octinoxate	97.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A111532

Included Lab Sample IDs: 2315461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Caffeine	97.9		P	80 - 120

Quality Assurance Report

Calibration Verification

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101						0.152	
EPA 180.1 Rev. 2.0	Turbidity	97.0						1.41	
EPA 200.7 Rev. 4.4	Calcium	106		105	104	102			0.761
	Iron	105		105	105	103			0.371
	Magnesium	102		106	106	104			0.153
	Potassium	101		102	102	102			0.0148
	Sodium	101		103	102	101			0.774
	Strontium	102		106	104	104			2.12
	Tin	105		105	106	106			1.19
	Titanium	104		102	104	104			1.84
	Vanadium	98.7		98.4	99.9	99.6			1.53
	Zinc	104		105	105	105			0.0072
EPA 200.8 Rev. 5.4	Aluminum	101		106	108	103			1.56
	Antimony	99.7		101	101	102			0.0923
	Arsenic	100		102	102	103			0.204
	Barium	103		105	107	106			1.42
	Beryllium	95.4		95.5	98.9	98.3			2.85
	Boron	100		104	104	104			0.206
	Cadmium	101		102	103	102			1.66
	Chromium	95.4		99.6	100	98.9			0.354
	Cobalt	98.1		100	101	102			0.564
	Copper	95.6		100	101	102			0.627
	Lead	97.1		100	100	99.5			0.131
	Manganese	96.5		97.5	101	100			1.77
	Molybdenum	98.2		101	101	102			0.248
	Nickel	97.4		100	100	103			0.0905
	Selenium	98.8		101	102	99.9			0.789
	Silver	99.3		101	101	101			0.551
	Thallium	98.9		102	103	102			0.567
EPA 300.0 Rev. 2.1	Chloride	102		97.3	99.2			0.933	
	Sulfate	100		99.4	99.8			0.390	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8		96.2	98.0				1.74
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		101	101				0.0495
	Kjeldahl Nitrogen	106		106	116				7.04
	Kjeldahl Nitrogen	97.5		93.7	93.2				0.491
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		93.5	93.5				0.0
EPA 365.1 Rev. 2.0	Total-P	103		103	102				0.146
EPA 8270E	Acetochlor	106		106	109				2.45
	Alachlor	92.9		94.9	94.6				0.313
	Aldrin	64.5		62.4	63.8				2.23
	Alpha-BHC	95.6		90.5	89.2				1.40
	Alpha-Chlordane	89.8		86.2	87.4				1.37
	Ametryn	109		125	110				12.5
	Atrazine	91.2		105	105				0.134
	Atrazine Desethyl	66.0		68.2	73.3				7.12
	Avobenzone	121	96.2	118			23.1		
	Azinphos Methyl	74.7		86.5	85.4				1.28
	Azoxystrobin	86.8		117	121				3.21
	Beta-BHC	124		127	125				1.51
	Beta-Cyfluthrin	94.3		110	108				2.14
	Bifenthrin	69.8		85.2	84.2				1.23
	Bromacil	111		123	112				9.26
	Butylate	63.6		39.9	34.7				14.1
	Caffeine	81.0	76.9	94.9			5.23		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Carbophenothion	111	127	109			14.7
	Carfentrazone Ethyl	126	131	132			0.804
	Chlorfenapyr	83.6	87.1	84.0			3.63
	Chlorothalonil	86.4	197	174			12.2
	Chlorpyrifos Ethyl	93.9	103	94.2			8.71
	Chlorpyrifos Methyl	90.6	97.1	91.4			6.02
	Cis-Nonachlor	82.2	68.6	69.2			0.907
	Coumaphos	178	201	184			9.08
	Cyanazine	181	176	146			19.0
	Cypermethrin	99.4	112	108			3.06
	Cyprodinil	123	132	131			0.476
	Dacthal	101	93.0	94.2			1.29
	DDD-p,p'	73.8	60.2	62.1			3.09
	DDE-p,p'	90.0	80.3	79.8			0.605
	DDT-p,p'	88.2	82.7	82.2			0.607
	Delta-BHC	124	140	131			6.23
	Deltamethrin	110	142	137			3.85
	Demeton	72.7	89.2	79.9			11.1
	Diazinon	104	108	106			1.44
	Dichlobenil	93.4	96.1	94.6			1.52
	Dicofol	82.8	80.0	79.4			0.693
	Dieldrin	95.7	84.0	84.9			1.14
	Difenoconazole	85.7	100	109			8.49
	Dimethenamid	85.7	85.5	85.3			0.246
	Dimethomorph	97.2	112	115			2.29
	Disulfoton	81.4	94.5	87.2			8.02
	Dithiopyr	98.2	98.3	105			6.39
	Endosulfan I	93.2	85.5	85.2			0.413
	Endosulfan II	101	83.4	84.9			1.76
	Endosulfan Sulfate	104	104	94.4			10.1
	Endrin	95.3	80.0	83.8			4.60
	Endrin Aldehyde	96.3	47.4	66.5			33.7
	Endrin Ketone	110	120	117			2.73
	EPTC	59.6	36.4	32.4			11.5
	Esfenvalerate	92.4	127	119			6.85
	Ethalfuralin	86.1	79.9	80.2			0.349
	Ethion	81.5	95.4	88.8			7.12
	Ethoprop	91.2	96.1	93.0			3.26
	Etridiazole	75.4	59.3	51.8			13.5
	Fenamiphos	106	125	113			9.50
	Fenbuconazole	149	142	156			9.17
	Fenpropathrin	94.7	102	101			0.987
	Fipronil	107	116	116			0.0005
	Fipronil Desulfinyl	103	98.7	96.3			2.41
	Fipronil Sulfide	87.1	99.4	89.2			10.8
	Fipronil Sulfone	105	121	110			9.42
	Fluazifop-P-butyl	93.5	98.3	93.4			5.17
	Fludioxonil	116	121	117			3.80
	Flumioxazin	135	195	117			50.5
	Flutolanil	94.3	102	95.8			6.01
	Fluxapyroxad	75.0	59.7	73.8			19.6
	Fonofos	84.3	97.4	92.5			5.22
	Gamma-BHC	109	98.3	96.6			1.70
	Gamma-Chlordane	89.9	85.2	85.2			0.0605

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	
							SMP	MS
EPA 8270E	Heptachlor	85.1		78.9	77.9			1.23
	Heptachlor Epoxide	97.4		89.4	89.0			0.459
	Hexachlorobenzene	89.4		82.5	81.1			1.64
	Hexazinone	94.8		104	104			0.481
	Imazalil	65.6		79.3	79.9			0.740
	Iprodione	88.9		82.3	96.3			15.7
	Kepone	113		181	126			35.7
	Lambda-Cyhalothrin	83.8		107	108			1.49
	Loratadine	62.6		79.0	91.4			14.6
	Malathion	108		118	111			6.17
	Metalaxyl	89.2		88.8	93.2			4.86
	Methoprene	67.8		74.4	70.4			5.47
	Methoxychlor	107		113	111			2.58
	Metolachlor	100		104	109			3.53
	Metribuzin	85.0		101	82.5			20.4
	Mevinphos	81.1		81.9	81.4			0.592
	MGK-264	88.7		86.4	84.3			2.45
	Mirex	69.2		70.0	70.0			0.0112
	Molinate	72.2		58.7	56.4			4.11
	Myclobutanil	110		115	118			2.19
	Naled	86.8		89.0	75.8			16.1
	Napropamide	87.4		91.5	88.3			3.59
	Norflurazon	61.4		77.9	82.5			5.81
	Octinoxate	124	101	64.7		21.2		
	Oxadiazon	92.4		83.3	92.1			10.1
	Oxybenzone	88.8		101	91.5			9.44
	Oxychlordane	89.3		89.1	84.0			5.88
	Oxyfluorfen	113		124	119			4.29
	Parathion Ethyl	92.6		96.8	104			6.96
	Parathion Methyl	101		107	113			5.23
	PCB-1016	75.8		88.3	80.6			9.13
	PCB-1260	103		116	108			7.19
	Pendimethalin	80.2		99.0	102			3.15
	Permethrin	98.6		113	108			3.83
	Phenothrin	72.8		91.1	91.9			0.854
	Phenytol	133		136	145			6.19
	Phorate	91.1		101	91.3			10.5
	Piperonyl Butoxide	112		97.7	99.4			1.68
	Prallethrin	82.6		78.6	72.9			7.43
	Prodimamine	130		74.6	63.9			15.5
	Prometon	120		136	125			8.76
	Prometryn	113		126	118			5.92
	Pronamide	101		118	112			5.16
	Propanil	92.8		90.3	92.1			2.02
	Propargite	159		166	156			6.14
	Propiconazole	67.8		139	140			0.602
	Pyraflufen Ethyl	141		148	125			16.9
	Pyridaben	205		101	103			2.38
	Pyriproxyfen	90.6		90.1	104			14.8
	Simazine	93.9		101	100			0.252
	Stirophos	89.6		97.3	82.9			14.9
	Sulfentrazone	98.7		75.2	83.6			10.6
	Tau-Fluvalinate	79.4		110	106			3.90
	Tebuconazole	45.9		44.8	82.7			59.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Terbufos	108	120	112			6.61
	Terbutylazine	89.4	99.3	97.2			2.06
	Tetramethrin	108	121	120			0.903
	Thiobencarb	95.5	97.4	99.7			2.31
	Trans-Nonachlor	91.4	81.2	88.8			9.01
	Triadimefon	87.7	93.9	94.7			0.863
	Triclosan Methyl	94.3	81.9	81.0			1.10
	Trifluralin	86.9	82.0	80.5			1.79
EPA 8276	Chlordane	87.5	88.5	88.6			0.0836
	Toxaphene	74.4	77.3	79.8			3.18
EPA 8321B	2,4-D	65.5	71.1	73.6			3.28
	2,4,5-T	56.7	60.7	56.7			6.77
	3-Hydroxycarbofuran	83.2	105	107			1.57
	Acesulfame K	79.5	125	120			4.09
	Acetaminophen	57.6	96.2	92.4			3.96
	Acetamiprid	85.4	87.8	103			15.6
	Afidopyropen	50.0	61.1	69.5			12.9
	Aldicarb	57.4	86.0	73.0			16.4
	Aldicarb Sulfone	93.6	122	108			12.1
	Aldicarb Sulfoxide	90.4	52.1	48.2			7.73
	AMPA	122	86.9	109			22.9
	Bentazon	132	108	124			6.07
	Benzovindiflupyr	83.3	81.0	86.5			6.58
	Carbamazepine	77.8	92.8	92.6			0.0807
	Carbaryl	83.4	70.9	69.8			1.52
	Carbofuran	98.0	94.6	83.6			12.3
	Clothianidin	96.5	106	111			4.93
	Dinotefuran	85.7	109	115			4.83
	Diuron	75.6	69.9	82.1			14.6
	Endothall	65.7	87.6	86.5			1.27
	Fenuron	117	117	126			7.30
	Fluridone	77.6	74.7	80.3			6.41
	Glufosinate	108	98.7	112			12.6
	Glyphosate	120	77.4	86.5			11.1
	Hydrocodone	89.3	95.7	113			16.7
	Ibuprofen	80.7	48.2	48.1			0.364
	Imazapyr	92.7	82.7	105			20.7
	Imidacloprid	97.4	101	123			18.9
	Linuron	63.1	75.8	81.4			7.14
	Mandestrobin	82.6	82.5	90.0			8.62
	MCP	74.2	79.6	80.9			1.69
	Methiocarb	77.4	67.5	71.9			6.32
	Methomyl	89.4	94.9	90.1			5.14
	Naproxen	52.2	66.2	63.1			4.70
	Oxamyl	92.4	102	97.2			4.89
	Primidone	101	66.6	123			34.6
	Propoxur	82.4	88.2	87.2			1.14
	Pyraclostrobin	73.1	72.4	77.3			6.48
	Silvex	52.8	58.0	61.7			6.03
	Sucralose	88.3	96.1	90.9			5.56
	Thiamethoxam	85.0	100	124			21.0
	Tolfenpyrad	49.2	46.2	38.0			19.5
	Triclopyr	57.9	66.6	71.9			7.71
SM 2320 B-2011	Total Alkalinity	98.1				1.79	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2540 C-2011	TDS				0.313	
SM 4500-F- C-2011	Fluoride	97.5	101	101		0.490
SM 5310 B-2011	Organic Carbon	94.8	97.7	97.0		0.593

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2315443, 2315445, 2315446
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2315443, 2315445, 2315446
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2315462, 2315463, 2315464, 2315465, 2315466, 2315467
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2315462, 2315463, 2315464, 2315465, 2315466, 2315467
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2315443, 2315445, 2315446
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2315443, 2315445, 2315446
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2315444, 2315447, 2315448
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2315444, 2315447, 2315448
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2315444, 2315447, 2315448
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2315444, 2315447, 2315448
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2315461
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2315460
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2315461
EPA 8270E	PCBs in water matrices by GC/MS/MS	2315460
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2315460
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2315458
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2315459
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2315443, 2315445, 2315446
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2315462, 2315463, 2315464, 2315465, 2315466, 2315467
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2315443, 2315445, 2315446
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2315443, 2315445, 2315446
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2315443, 2315445, 2315446
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2315444, 2315447, 2315448

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	03/30/2022			03/30/2022 15:41	Samantha L Bates	2315443, 2315445
	03/30/2022			03/30/2022 15:43	Samantha L Bates	2315446
	03/30/2022			03/30/2022 15:04	Anna M. Plaviak	2315443
EPA 180.1 Rev. 2.0	03/30/2022			03/30/2022 15:05	Anna M. Plaviak	2315445
	03/30/2022			03/30/2022 15:07	Anna M. Plaviak	2315446
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/09/2022 00:31	McKinley C Carter	2315463
EPA 200.7 Rev. 4.4	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/09/2022 00:35	McKinley C Carter	2315464
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/09/2022 00:40	McKinley C Carter	2315466
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/09/2022 01:13	McKinley C Carter	2315462
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/09/2022 01:38	McKinley C Carter	2315465
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/09/2022 01:55	McKinley C Carter	2315467
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/13/2022 16:57	McKinley C Carter	2315463
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/13/2022 17:02	McKinley C Carter	2315464
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/13/2022 17:06	McKinley C Carter	2315466
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/16/2022 17:29	Josef B Mick	2315462
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/16/2022 18:26	Josef B Mick	2315465
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/16/2022 18:45	Josef B Mick	2315467
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/05/2022 15:41	Alexander Thompson	2315462
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/05/2022 16:20	Alexander Thompson	2315465
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/05/2022 17:08	Alexander Thompson	2315463
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/05/2022 17:18	Alexander Thompson	2315464
EPA 200.8 Rev. 5.4	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/05/2022 17:27	Alexander Thompson	2315466
	03/30/2022	04/05/2022 10:26	Megan Whitefoot	04/05/2022 17:37	Alexander Thompson	2315467
	03/30/2022			04/02/2022 02:17	Anna M. Plaviak	2315443
EPA 300.0 Rev. 2.1	03/30/2022			04/02/2022 02:29	Anna M. Plaviak	2315445
	03/30/2022			04/02/2022 02:41	Anna M. Plaviak	2315446
	03/30/2022			04/06/2022 11:37	Ping Hua	2315444
EPA 350.1 Rev. 2.0	03/30/2022			04/06/2022 11:38	Ping Hua	2315447
	03/30/2022			04/06/2022 11:40	Ping Hua	2315448
	03/30/2022	04/12/2022 17:00	Samantha L Bates	04/18/2022 13:15	Alexandra J Mattheus	2315448
EPA 351.2 Rev. 2.0	03/30/2022	04/13/2022 07:54	Samantha L Bates	04/13/2022 13:33	Alexandra J Mattheus	2315447
	03/30/2022	04/13/2022 07:54	Samantha L Bates	04/13/2022 15:52	Alexandra J Mattheus	2315444
	03/30/2022			03/31/2022 10:31	Beverly Y. Sanders	2315444
EPA 353.2 Rev. 2.0	03/30/2022			03/31/2022 10:37	Beverly Y. Sanders	2315447
	03/30/2022			03/31/2022 10:38	Beverly Y. Sanders	2315448
	03/30/2022	04/07/2022 10:00	Simonne.V. Calhoun	04/08/2022 11:31	James L Waggeberby	2315444
EPA 365.1 Rev. 2.0	03/30/2022	04/07/2022 10:00	Simonne.V. Calhoun	04/08/2022 11:32	James L Waggeberby	2315447
	03/30/2022	04/07/2022 10:00	Simonne.V. Calhoun	04/08/2022 11:33	James L Waggeberby	2315448
EPA 8270E	03/30/2022	04/01/2022 08:00	Rasheda Ghaffari	04/07/2022 17:29	Michael Poppell	2315461
	03/30/2022	04/01/2022 08:00	Rasheda Ghaffari	04/07/2022 17:39	Lipi Saha	2315461

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	03/30/2022	04/01/2022 08:00	Rasheda Ghaffari	04/09/2022 18:13	Michael Poppell	2315461
	03/30/2022	04/04/2022 08:00	Rasheda Ghaffari	04/05/2022 21:55	Vandana T. Nagar	2315460
	03/30/2022	04/04/2022 08:00	Rasheda Ghaffari	04/06/2022 01:54	Julie Wi	2315460
	03/30/2022	04/13/2022 08:30	Rasheda Ghaffari	04/15/2022 19:56	Lipi Saha	2315461
	03/30/2022	04/13/2022 08:30	Rasheda Ghaffari	04/15/2022 20:17	Michael Poppell	2315461
EPA 8276	03/30/2022	04/04/2022 08:00	Rasheda Ghaffari	04/07/2022 10:42	Arthur Maknenko	2315460
EPA 8321B	03/30/2022	04/01/2022 09:30	Umesh Chiluwal	04/01/2022 11:48	Manjita Shrestha	2315459
	03/30/2022	04/01/2022 09:30	Umesh Chiluwal	04/01/2022 21:57	Manjita Shrestha	2315459
	03/30/2022	04/04/2022 09:30	June Rhew	04/05/2022 02:41	Juyoung Kim	2315459
	03/30/2022	04/05/2022 08:30	June Rhew	04/06/2022 09:12	Juyoung Kim	2315458
SM 2320 B-2011	03/30/2022			04/02/2022 13:28	Dale L. Simmons	2315443
	03/30/2022			04/02/2022 13:37	Dale L. Simmons	2315445
	03/30/2022			04/02/2022 13:47	Dale L. Simmons	2315446
SM 2340 B-2011	03/30/2022			04/13/2022 16:57	McKinley C Carter	2315463
	03/30/2022			04/13/2022 17:02	McKinley C Carter	2315464, 2315466
	03/30/2022			04/16/2022 17:29	Josef B Mick	2315462
	03/30/2022			04/16/2022 18:45	Josef B Mick	2315465, 2315467
SM 2540 C-2011	03/30/2022			03/31/2022 16:15	Simonne.V. Calhoun	2315443, 2315445, 2315446
SM 2540 D-2011	03/30/2022			03/31/2022 16:15	Simonne.V. Calhoun	2315443, 2315445, 2315446
SM 4500-F- C-2011	03/30/2022			04/02/2022 13:28	Dale L. Simmons	2315443
	03/30/2022			04/02/2022 13:37	Dale L. Simmons	2315445
	03/30/2022			04/02/2022 13:47	Dale L. Simmons	2315446
SM 5310 B-2011	03/30/2022			04/06/2022 14:24	Khloe J Berg	2315447
	03/30/2022			04/06/2022 18:31	Khloe J Berg	2315444
	03/30/2022			04/06/2022 18:49	Khloe J Berg	2315448