

Chemical Analysis Report

NW-DIST-2022-09-21-06

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

Event Description: **Pace Run**
Request ID: **RQ-2022-09-19-34**
Customer: **NW-DIST**
Project ID: **SMP**

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

Date Certified: 13-OCT-2022 10:32



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Clear Creek upstream of Pat Brown Road

Collection Date/Time: 09/20/2022 09:34

Field ID: G4NW0360

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358325	DEP SOP: NU-094-1	Color (true)	6.2		PCU	P419923	
	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P419959	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P420258	
		Sulfate	0.39	I	mg SO4/L	P420262	
	SM 2320 B-2011	Total Alkalinity	2.7		mg CaCO3/L	P420379	
	SM 2540 C-2011	TDS	23	I	mg/L	P420436	
	SM 2540 D-2011	TSS	4	I	mg/L	P420390	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420383	
2358326	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P420419	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P420124	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.0		mg N/L	P420316	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P420227	
	SM 5310 B-2011	Organic Carbon	1.1		mg C/L	P420121	
2358346	EPA 200.7 Rev. 4.4	Calcium	1.35		mg/L	P420018	
		Iron	440		ug/L	P420018	
		Magnesium	1.21		mg/L	P420018	
		Potassium	0.35	I	mg/L	P420018	
		Sodium	2.3		mg/L	P420548	
		Strontium	12.0		ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	0.75	U	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.0	U	ug/L	P420018	
		Aluminum	32		ug/L	P420018	
		Antimony	0.050	U	ug/L	P420018	
		Arsenic	0.23		ug/L	P420018	
		Barium	30.9		ug/L	P420018	
		Beryllium	0.019	I	ug/L	P420018	
		Boron	9.2		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	0.40	U	ug/L	P420018	
		Cobalt	0.212		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
		Lead	0.20	U	ug/L	P420018	
		Manganese	13.3		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	0.50	U	ug/L	P420018	
		Selenium	0.20	U	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
	SM 2340 B-2011	Hardness	8.3		mg/L	P420018	

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: Bucket Branch end of Bucket Creek Rd.

Collection Date/Time: 09/20/2022 09:54

Field ID: G4NW0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358347	EPA 200.7 Rev. 4.4	Calcium	1.71		mg/L	P420018	
		Iron	880		ug/L	P420018	
		Magnesium	1.27		mg/L	P420018	
		Potassium	0.48	I	mg/L	P420018	
		Sodium	2.2		mg/L	P420548	
		Strontium	10.1		ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	0.75	U	ug/L	P420018	
		Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.0	U	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Aluminum	93		ug/L	P420018	
		Antimony	0.050	U	ug/L	P420018	
		Arsenic	0.33		ug/L	P420018	
		Barium	26.4		ug/L	P420018	
		Beryllium	0.017	I	ug/L	P420018	
		Boron	13.0		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	0.40	U	ug/L	P420018	
		Cobalt	0.181		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
		Lead	0.21	I	ug/L	P420018	
		Manganese	28.6		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	0.50	U	ug/L	P420018	
		Selenium	0.20	U	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
	SM 2340 B-2011	Hardness	9.5		mg/L	P420018	

Sample Location: Clear Creek upstream of Hwy 87A

Collection Date/Time: 09/20/2022 10:35

Field ID: G4NW0510

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358327	DEP SOP: NU-094-1	Color (true)	3.4	I	PCU	P419923	
	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P419959	
	EPA 300.0 Rev. 2.1	Chloride	5.0		mg Cl/L	P420258	
		Sulfate	0.25	I	mg SO4/L	P420262	
	SM 2320 B-2011	Total Alkalinity	3.0		mg CaCO3/L	P420379	
	SM 2540 C-2011	TDS	21	I	mg/L	P420436	
	SM 2540 D-2011	TSS	3	I	mg/L	P420390	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420383	
2358328	EPA 350.1 Rev. 2.0	Ammonia-N	0.008	Y	mg N/L	P420419	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	IY	mg N/L	P420124	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5	Y	mg N/L	P420316	
	EPA 365.1 Rev. 2.0	Total-P	0.002	IY	mg P/L	P420227	
	SM 5310 B-2011	Organic Carbon	1.3	Y	mg C/L	P420121	

Ref. Method and Comment:

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

EPA 350.1 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 351.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 353.2 Rev. 2.0: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

EPA 365.1 Rev. 2.0: Total-P: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

SM 5310 B-2011: The sample was received unpreserved: pH > 2. Sample preserved in laboratory.

Sample Location: Bucket Branch downstream of Pat Brown Road Collection Date/Time: 09/20/2022 10:08

Field ID: G4NW0532

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358348	EPA 200.7 Rev. 4.4	Calcium	1.58		mg/L	P420018	
		Iron	960		ug/L	P420018	
		Magnesium	1.21		mg/L	P420018	
		Potassium	0.50	I	mg/L	P420018	
		Sodium	2.2		mg/L	P420548	
		Strontium	9.9		ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	0.77	I	ug/L	P420018	
		Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.0	U	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Aluminum	101		ug/L	P420018	
		Antimony	0.050	U	ug/L	P420018	
		Arsenic	0.30		ug/L	P420018	
		Barium	30.4		ug/L	P420018	
		Beryllium	0.022	I	ug/L	P420018	
		Boron	12.7		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	0.40	U	ug/L	P420018	
		Cobalt	0.469		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
	SM 2340 B-2011	Lead	0.26	I	ug/L	P420018	
		Manganese	57.4		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	0.50	U	ug/L	P420018	
		Selenium	0.20	U	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
		Hardness	8.9		mg/L	P420018	

Sample Location: Coldwater Creek West Fork downstream of Hwy 87

Collection Date/Time: 09/20/2022 11:02

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358323	DEP SOP: NU-094-1	Color (true)	14		PCU	P419923	
	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P419959	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P420258	
		Sulfate	1.1		mg SO4/L	P420262	
	SM 2320 B-2011	Total Alkalinity	2.7		mg CaCO3/L	P420379	
	SM 2540 C-2011	TDS	41		mg/L	P420436	
	SM 2540 D-2011	TSS	6	I	mg/L	P420390	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420383	
2358324	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P420419	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P420124	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.2		mg N/L	P420316	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P420227	
	SM 5310 B-2011	Organic Carbon	1.6		mg C/L	P420121	
2358342	EPA 8321B	Aldicarb	0.020	U	ug/L	P420045	
		Aldicarb Sulfone	0.0020	U	ug/L	P420045	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P420045	
		Carbaryl	0.0020	U	ug/L	P420045	
		Carbofuran	0.0020	U	ug/L	P420045	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P420045	
		Methiocarb	0.0020	U	ug/L	P420045	
		Methomyl	0.0020	U	ug/L	P420045	
		Oxamyl	0.0020	U	ug/L	P420045	
		Propoxur	0.0020	U	ug/L	P420045	
		2,4-D	0.0020	U	ug/L	P419978	
		Acesulfame K	0.10	U	ug/L	P419904	
2358343		2,4,5-T	0.0040	U	ug/L	P419978	
		AMPA	0.10	U	ug/L	P419904	
		Acetaminophen	0.0080	U	ug/L	P419978	
		Acetamiprid	0.0020	U	ug/L	P419978	
		Endothall	0.25	U	ug/L	P419904	
		Glufosinate	0.10	U	ug/L	P419904	
		Glyphosate	0.10	U	ug/L	P419904	
		Afidopyropen	0.0020	U	ug/L	P419978	
		Bentazon	0.0036		ug/L	P419978	
		Sucralose	0.047		ug/L	P419904	
		Benzovindiflupyr	0.0020	U	ug/L	P419978	
		Carbamazepine	8.0E-04	U	ug/L	P419978	
		Clothianidin	0.0034	I	ug/L	P419978	
		Dinotefuran	0.0044	I	ug/L	P419978	
		Diuron	0.0020	U	ug/L	P419978	
		Fenuron	0.016	U	ug/L	P419978	
		Fluridone	8.0E-04	U	ug/L	P419978	
		Imazapyr	0.0040	U	ug/L	P419978	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358343	EPA 8321B	Hydrocodone	0.0020	U	ug/L	P419978	MS
		Ibuprofen	0.020	U	ug/L	P419978	
		Imidacloprid	0.0055	I	ug/L	P419978	
		Linuron	0.0040	U	ug/L	P419978	
		Mandestrobin	0.0020	U	ug/L	P419978	
		MCP	0.0020	U	ug/L	P419978	
		Naproxen	0.0080	U	ug/L	P419978	
		Primidone	0.0040	U	ug/L	P419978	
		Pyraclostrobin	0.0020	U	ug/L	P419978	
		Silvex	0.0040	U	ug/L	P419978	
		Thiamethoxam	0.0020	U	ug/L	P419978	
		Tolfenpyrad	0.0020	U	ug/L	P419978	
		Triclopyr	0.0040	U	ug/L	P419978	
2358344	EPA 8270E	Aldrin	0.67	U	ng/L	P419857	
		Alpha-BHC	0.10	U	ng/L	P419857	
		Alpha-Chlordane	0.21	U	ng/L	P419857	
		PCB-1016	2.1	U	ng/L	P419857	
		Beta-BHC	0.10	U	ng/L	P419857	
		PCB-1221	2.1	U	ng/L	P419857	
		Beta-Cyfluthrin	1.3	U	ng/L	P419857	
		PCB-1232	2.1	U	ng/L	P419857	
		Bifenthrin	0.52	U	ng/L	P419857	
		PCB-1242	2.1	U	ng/L	P419857	
		PCB-1248	2.1	U	ng/L	P419857	
		Chlorothalonil	1.7	I	ng/L	P419857	
		PCB-1254	2.1	U	ng/L	P419857	
		Cis-Nonachlor	0.21	U	ng/L	P419857	
		PCB-1260	2.1	U	ng/L	P419857	
		Cypermethrin	1.6	U	ng/L	P419857	
		Dacthal	0.16	U	ng/L	P419857	
		DDD-p,p'	0.26	U	ng/L	P419857	
		DDE-p,p'	0.21	U	ng/L	P419857	
		DDT-p,p'	0.26	U	ng/L	P419857	
		Delta-BHC	0.41	U	ng/L	P419857	
		Deltamethrin	1.3	U	ng/L	P419857	
		Dichlobenil	0.26	U	ng/L	P419857	
		Dicofol	1.3	U	ng/L	P419857	
		Dieldrin	0.79	I	ng/L	P419857	
		Endosulfan I	0.41	U	ng/L	P419857	
		Endosulfan II	0.41	U	ng/L	P419857	
		Endosulfan Sulfate	0.31	U	ng/L	P419857	
		Endrin	0.41	U	ng/L	P419857	
		Endrin Aldehyde	0.78	U	ng/L	P419857	
		Endrin Ketone	0.62	I	ng/L	P419857	
		Esfenvalerate	0.78	U	ng/L	P419857	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358344	EPA 8270E	Ethalfuralin	0.16	U	ng/L	P419857	CCV
		Fenpropathrin	0.26	U	ng/L	P419857	
		Gamma-BHC	0.13	U	ng/L	P419857	
		Gamma-Chlordane	0.21	U	ng/L	P419857	
		Heptachlor	0.21	U	ng/L	P419857	
		Heptachlor Epoxide	0.26	U	ng/L	P419857	
		Hexachlorobenzene**	1.0	U	ng/L	P419857	
		Kepone	5.2	UJ	ng/L	P419857	
		Lambda-Cyhalothrin	0.78	U	ng/L	P419857	
		Methoprene	0.78	U	ng/L	P419857	
		Methoxychlor	0.31	U	ng/L	P419857	
		MGK-264	0.21	U	ng/L	P419857	
		Mirex	0.36	U	ng/L	P419857	
		Oxychlordane	0.31	U	ng/L	P419857	
		Permethrin	1.7	U	ng/L	P419857	
		Phenothrin	0.93	U	ng/L	P419857	
		Piperonyl Butoxide	0.16	U	ng/L	P419857	
		Prallethrin	2.1	U	ng/L	P419857	
		Tau-Fluvalinate	0.26	U	ng/L	P419857	
		Tetramethrin	0.78	U	ng/L	P419857	
		Trans-Nonachlor	0.21	U	ng/L	P419857	
		Triclosan Methyl	0.16	U	ng/L	P419857	
		Trifluralin	0.21	U	ng/L	P419857	
	EPA 8276	Chlordane	2.6	U	ng/L	P419857	
		Toxaphene	16	U	ng/L	P419857	
2358345	EPA 8270E	Oxybenzone**	9.9	U	ng/L	P419914	MS
		Acetochlor	0.25	U	ng/L	P419914	
		Octinoxate**	110		ng/L	P419914	
		Alachlor	1.1		ng/L	P419914	
		Avobenzone**	99	U	ng/L	P419914	RPD
		Ametryn	0.60	U	ng/L	P419914	
		Atrazine	0.33	I	ng/L	P419914	
		PBDE-47**	4.0	U	ng/L	P419914	
		Atrazine Desethyl	1.5	U	ng/L	P419914	MS, RPD
		PBDE-99**	5.0	U	ng/L	P419914	
		Azinphos Methyl	2.0	U	ng/L	P419914	
		Tri-o-cresyl Phosphate**	6.0	U	ng/L	P419914	
		Azoxystrobin	0.50	U	ng/L	P419914	MS, RPD
		Bromacil	0.99	I	ng/L	P419914	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P419914	
		Butylate	0.40	U	ng/L	P419914	
		Dechlorane Plus**	30	U	ng/L	P419914	MS, RPD
		Caffeine**	7.5	U	ng/L	P419914	
		Carbophenothion	0.20	U	ng/L	P419914	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358345	EPA 8270E	Carfentrazone Ethyl	0.099	U	ng/L	P419914	
		Chlorfenapyr	0.17	U	ng/L	P419914	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P419914	
		Chlorpyrifos Methyl	0.050	U	ng/L	P419914	
		Coumaphos	0.50	U	ng/L	P419914	
		Cyanazine	3.2	U	ng/L	P419914	
		Cyprodinil	0.099	U	ng/L	P419914	
		Demeton	1.5	U	ng/L	P419914	
		Diazinon	0.12	U	ng/L	P419914	
		Difenoconazole	0.60	U	ng/L	P419914	
		Dimethenamid	0.14	I	ng/L	P419914	
		Dimethomorph	0.17	U	ng/L	P419914	MS, RPD
		Disulfoton	0.50	U	ng/L	P419914	
		Dithiopyr	0.29	I	ng/L	P419914	
		EPTC	1.2	U	ng/L	P419914	
		Ethion	0.15	U	ng/L	P419914	
		Ethoprop	0.099	U	ng/L	P419914	
		Etridiazole	0.15	U	ng/L	P419914	
		Fenamiphos	0.50	U	ng/L	P419914	
		Fenbuconazole	0.12	U	ng/L	P419914	
		Fipronil	0.25	U	ng/L	P419914	
		Fipronil DesulfinyI**	0.12	U	ng/L	P419914	
		Fipronil Sulfide	0.15	U	ng/L	P419914	
		Fipronil Sulfone	0.15	U	ng/L	P419914	
		Fluazifop-P-butyl	0.099	U	ng/L	P419914	
		Fludioxonil	0.12	U	ng/L	P419914	
		Flumioxazin	1.7	U	ng/L	P419914	
		Flutolanil	1.0		ng/L	P419914	
		Fluxapyroxad	0.099	U	ng/L	P419914	
		Fonofos	0.20	U	ng/L	P419914	
		Hexazinone	1.8	I	ng/L	P419914	
		Imazalil	0.75	U	ng/L	P419914	
		Iprodione	0.60	U	ng/L	P419914	
		Loratadine**	0.099	U	ng/L	P419914	MS, RPD
		Malathion	0.35	U	ng/L	P419914	
		Metalaxyl	0.75	U	ng/L	P419914	
		Metolachlor	18		ng/L	P419914	
		Metribuzin	2.5	U	ng/L	P419914	
		Mevinphos	1.0	U	ng/L	P419914	
		Molinate	0.30	U	ng/L	P419914	
		Myclobutanil	0.25	U	ng/L	P419914	
		Naled	1.5	U	ng/L	P419914	RPD
		Napropamide	0.40	U	ng/L	P419914	
		Norflurazon	1.0	I	ng/L	P419914	
		Oxadiazon	0.30	U	ng/L	P419914	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358345	EPA 8270E	Oxyfluorfen	0.15	U	ng/L	P419914	
		Parathion Ethyl	0.25	U	ng/L	P419914	
		Parathion Methyl	0.55	U	ng/L	P419914	
		Pendimethalin	0.99	U	ng/L	P419914	
		Phenytol**	3.5	U	ng/L	P419914	MS, RPD
		Phorate	0.52	U	ng/L	P419914	
		Prodiatone	0.17	U	ng/L	P419914	
		Prometon	0.89	U	ng/L	P419914	
		Prometryn	0.20	U	ng/L	P419914	
		Pronamide	0.15	U	ng/L	P419914	
		Propanil	0.12	U	ng/L	P419914	
		Propargite	1.5	U	ng/L	P419914	
		Propiconazole	0.50	U	ng/L	P419914	
		Pyraflufen Ethyl	0.25	U	ng/L	P419914	
		Pyridaben	0.45	U	ng/L	P419914	
		Pyriproxyfen	0.12	U	ng/L	P419914	
		Simazine	0.50	U	ng/L	P419914	
		Stirophos	0.12	U	ng/L	P419914	
		Sulfentrazone	0.50	U	ng/L	P419914	
		Tebuconazole	0.50	U	ng/L	P419914	
		Terbufos	0.099	U	ng/L	P419914	
		Terbutylazine	0.42	U	ng/L	P419914	
		Thiobencarb	0.60	U	ng/L	P419914	
		Triadimefon	0.25	U	ng/L	P419914	

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: MS accuracy for atrazine and myclobutanil not assessed due to high content of these parameters in the sample spiked.

Sample Location: Coldwater Creek West Fork on CR 178

Collection Date/Time: 09/20/2022 11:55

Field ID: G4NW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358329	DEP SOP: NU-094-1	Color (true)	16		PCU	P419923	
	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P419959	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P420258	
		Sulfate	1.6		mg SO4/L	P420262	
	SM 2320 B-2011	Total Alkalinity	3.7		mg CaCO3/L	P420379	
	SM 2540 C-2011	TDS	36		mg/L	P420436	
	SM 2540 D-2011	TSS	5	I	mg/L	P420390	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420383	
2358331	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P420419	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P420125	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.3		mg N/L	P420316	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P420227	
	SM 5310 B-2011	Organic Carbon	1.9		mg C/L	P420121	

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: Big Coldwater Creek end of Steel Bridge Rd. Collection Date/Time: 09/20/2022 13:08

Field ID: G4NW0027

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358330	DEP SOP: NU-094-1	Color (true)	17		PCU	P419923	
	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P419960	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P420258	
		Sulfate	0.89		mg SO4/L	P420262	
	SM 2320 B-2011	Total Alkalinity	1.8	I	mg CaCO3/L	P420379	
	SM 2540 C-2011	TDS	24	I	mg/L	P420436	
	SM 2540 D-2011	TSS	4	I	mg/L	P420390	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420383	
2358332	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P420419	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P420126	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.8		mg N/L	P420316	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P420227	
	SM 5310 B-2011	Organic Carbon	1.8		mg C/L	P420121	

Ref. Method and Comment:

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

Non-Conformance Report

NCR ID: 9560

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
NW-DIST-2022-09-21-06	TLH-2022-09-21-139	2358328	
NW-DIST-2022-09-21-06	TLH-2022-09-21-144	2358348	

NCR Type: SHIPPING/RECEIVING

NCR Category: Preservation Not Intact

Observation: Samples not preserved to pH < 2.

Resolution: Sample preserved in the laboratory on 09/21/2022 at 13:00

H2SO4 Lot# SA2145160 | Expiration Date: 06/02/2023

HNO3 Lot# NA1105100 | Expiration Date: 06/07/2023

Authorized by/Date: Kyle Klug 9/21/2022

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419923

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419959

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419960

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420018

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
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 200.7 Rev. 4.4
Batch ID: P420548

Component	Result	Code	Units
Sodium	0.50	U	mg/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

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	0.63	I	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Component	Result	Code	Units
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: P420258

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420262

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420419

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420124

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420125

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420126

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420316

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420227

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419857

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419857

Component	Result	Code	Units
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419857

Component	Result	Code	Units
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P419914

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419914

Component	Result	Code	Units
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419914

Component	Result	Code	Units
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419914

Component	Result	Code	Units
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8276

Batch ID: P419857

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: P419904

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P419978

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
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: P420045

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: P420379

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P420436

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P420390

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P420383

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P420121

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: P419923

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419959

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419960

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	108		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	101		P	85 - 115
Strontium	104		P	85 - 115
Tin	102		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	99.9		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sodium	95.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	100		P	85 - 115
Barium	104		P	85 - 115
Beryllium	94.2		P	85 - 115
Boron	104		P	85 - 115
Cadmium	97.8		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	100		P	85 - 115
Copper	97.9		P	85 - 115
Lead	93.8		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	97.3		P	85 - 115
Nickel	99.9		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Selenium	102		P	85 - 115
Silver	112		P	85 - 115
Thallium	93.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420258

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420262

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420419

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420124

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420125

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420126

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420316

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420227

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P419857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.5		P	10 - 92.0
Alpha-BHC	90.5		P	75 - 107
Alpha-Chlordane	71.7		P	50 - 108
Beta-BHC	117		P	36 - 138
Beta-Cyfluthrin	85.9		P	20 - 161
Bifenthrin	78.7		P	10 - 119
Chlorothalonil	91.5		P	26 - 186
Cis-Nonachlor	67.3		P	42 - 119
Cypermethrin	87.1		P	22 - 150
Dacthal	88.5		P	72 - 119
DDD-p,p'	71.6		P	45 - 107
DDE-p,p'	72.4		P	48 - 106
DDT-p,p'	67.9		P	48 - 110
Delta-BHC	124		P	54 - 140
Deltamethrin	38.6		P	22 - 189
Dichlobenil	57.0		P	36 - 117
Dicofol	76.2		P	46 - 155
Dieldrin	73.5		P	54 - 110
Endosulfan I	73.8		P	59 - 105
Endosulfan II	82.5		P	51 - 118
Endosulfan Sulfate	89.4		P	57 - 121
Endrin	74.6		P	10 - 120
Endrin Aldehyde	77.5		P	34 - 118
Endrin Ketone	71.2		P	69 - 177
Esfenvalerate	82.4		P	23 - 168
Ethalfuralin	72.7		P	49 - 99.0
Fenpropathrin	78.7		P	34 - 117
Gamma-BHC	96.9		P	72 - 117
Gamma-Chlordane	72.8		P	43 - 106
Heptachlor	65.3		P	41 - 98.0
Heptachlor Epoxide	76.9		P	57 - 106
Hexachlorobenzene	72.5		P	36 - 99.0
Kepone	174		P	16 - 215
Lambda-Cyhalothrin	79.3		P	21 - 177
Methoprene	65.4		P	10 - 119
Methoxychlor	85.7		P	60 - 112
MGK-264	66.8		P	26 - 122
Mirex	59.4		P	10 - 169
Oxychlordane	70.5		P	43 - 105
PCB-1016	97.6		P	48 - 112
PCB-1260	91.2		P	44 - 118
Permethrin	82.2		P	24 - 148
Phenothrin	54.4		P	10 - 106
Piperonyl Butoxide	95.8		P	10 - 139
Prallethrin	58.7		P	17 - 109
Tau-Fluvalinate	75.9		P	13 - 131
Tetramethrin	95.4		P	10 - 132
Trans-Nonachlor	76.6		P	44 - 106
Triclosan Methyl	78.1		P	59 - 109
Trifluralin	75.0		P	44 - 101

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P419914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	130		P	50 - 150
Acetochlor	97.9		P	70 - 121
Alachlor	84.9		P	68 - 119
Ametryn	86.4		P	64 - 139
Atrazine	96.7		P	76 - 120
Atrazine Desethyl	69.5		P	44 - 126
Avobenzone	79.1		P	76 - 212
Azinphos Methyl	129		P	43 - 192
Azoxystrobin	110		P	36 - 224
Bromacil	86.7		P	52 - 121
Butylate	62.5		P	28 - 91.0
Caffeine	64.5		P	50 - 134
Carbophenothion	101		P	56 - 129
Carfentrazone Ethyl	101		P	60 - 141
Chlorfenapyr	96.6		P	56 - 115
Chlorpyrifos Ethyl	97.4		P	60 - 118
Chlorpyrifos Methyl	97.7		P	68 - 119
Coumaphos	101		P	18 - 250
Cyanazine	170		P	61 - 250
Cyprodinil	89.7		P	55 - 145
Dechlorane Plus	145		P	50 - 150
Demeton	80.1		P	30 - 159
Diazinon	94.3		P	70 - 123
Difenoconazole	124		P	49 - 204
Dimethenamid	79.5		P	64 - 115
Dimethomorph	107		P	12 - 219
Disulfoton	90.5		P	44 - 125
Dithiopyr	94.5		P	64 - 115
EPTC	59.3		P	28 - 86.0
Ethion	84.1		P	33 - 125
Ethoprop	87.9		P	64 - 116
Etridiazole	63.6		P	34 - 91.0
Fenamiphos	112		P	12 - 127
Fenbuconazole	96.3		P	59 - 151
Fipronil	88.2		P	67 - 129
Fipronil Desulfinyl	103		P	65 - 127
Fipronil Sulfide	77.6		P	61 - 116
Fipronil Sulfone	74.8		P	55 - 117
Fluazifop-P-butyl	98.1		P	62 - 127
Fludioxonil	86.8		P	62 - 128
Flumioxazin	129		P	33 - 250
Flutolanil	90.1		P	56 - 127
Fluxapyroxad	83.0		P	45 - 128
Fonofos	85.1		P	62 - 111
Hexazinone	93.7		P	46 - 139
Imazalil	76.5		P	38 - 142
Iprodione	91.2		P	47 - 135
Loratadine	110		P	10 - 244
Malathion	104		P	61 - 139
Metalaxyl	84.7		P	10 - 119
Metolachlor	91.5		P	65 - 118
Metribuzin	92.0		P	51 - 250

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P419914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mevinphos	78.3		P	53 - 121
Molinate	71.6		P	42 - 96.0
Myclobutanil	91.6		P	55 - 128
Naled	96.5		P	10 - 98.0
Napropamide	84.5		P	49 - 121
Norflurazon	86.3		P	61 - 126
Octinoxate	125		P	30 - 159
Oxadiazon	78.2		P	59 - 116
Oxybenzone	91.6		P	61 - 139
Oxyfluorfen	133		P	64 - 137
Parathion Ethyl	94.3		P	70 - 112
Parathion Methyl	105		P	76 - 133
PBDE-47	109		P	50 - 150
PBDE-99	124		P	50 - 150
Pendimethalin	81.6		P	52 - 117
Phenytoin	24.4		P	10 - 199
Phorate	81.1		P	48 - 121
Prodiamine	67.9		P	26 - 142
Prometon	80.7		P	43 - 123
Prometryn	87.5		P	66 - 127
Pronamide	101		P	75 - 121
Propanil	80.5		P	45 - 150
Propargite	81.0		P	42 - 208
Propiconazole	89.6		P	60 - 125
Pyraflufen Ethyl	87.7		P	70 - 138
Pyridaben	102		P	35 - 245
Pyriproxyfen	87.0		P	30 - 149
Simazine	100		P	72 - 125
Stirophos	83.0		P	29 - 164
Sulfentrazone	88.0		P	21 - 139
Tebuconazole	59.6		P	10 - 115
Terbufos	108		P	60 - 123
Terbuthylazine	90.8		P	72 - 115
Thiobencarb	85.6		P	31 - 139
Tri-o-cresyl Phosphate	112		P	50 - 150
Triadimefon	86.7		P	65 - 116

Reference Method: EPA 8276
Batch ID: P419857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	77.1		P	61 - 116
Toxaphene	87.3		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P419904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	105		P	40 - 150
Endothall	98.5		P	40 - 150
Glufosinate	88.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P419904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	103		P	40 - 150
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419978

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	73.0		P	30 - 160
2,4,5-T	68.7		P	30 - 160
Acetaminophen	95.6		P	30 - 150
Acetamiprid	81.4		P	30 - 160
Afidopyropen	60.7		P	30 - 160
Bentazon	93.9		P	30 - 150
Benzovindiflupyr	79.6		P	30 - 160
Carbamazepine	78.2		P	30 - 160
Clothianidin	100		P	30 - 160
Dinotefuran	98.2		P	30 - 160
Diuron	51.0		P	30 - 160
Fenuron	109		P	30 - 160
Fluridone	92.5		P	30 - 160
Hydrocodone	88.4		P	30 - 160
Ibuprofen	50.8		P	30 - 160
Imazapyr	103		P	30 - 160
Imidacloprid	123		P	30 - 160
Linuron	84.2		P	30 - 160
Mandestrobin	102		P	30 - 160
MCPP	75.6		P	30 - 160
Naproxen	76.7		P	30 - 160
Primidone	88.6		P	30 - 160
Pyraclostrobin	86.4		P	30 - 160
Silvex	66.1		P	30 - 160
Thiamethoxam	102		P	30 - 160
Tolfenpyrad	50.6		P	30 - 160
Triclopyr	68.6		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P420045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	80.8		P	30 - 160
Aldicarb	44.6		P	30 - 150
Aldicarb Sulfone	92.1		P	30 - 160
Aldicarb Sulfoxide	58.9		P	30 - 160
Carbaryl	64.8		P	30 - 160
Carbofuran	63.7		P	30 - 160
Methiocarb	74.0		P	30 - 160
Methomyl	83.5		P	30 - 160
Oxamyl	80.2		P	30 - 160
Propoxur	58.8		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P420379

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.6		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P420383

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P420121

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P420018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358253	Calcium	104		P	80 - 120
2358253	Iron	118	108	P/P	80 - 120
2358253	Magnesium	118	105	P/P	80 - 120
2358253	Potassium	112	101	P/P	80 - 120
2358253	Strontium	113	104	P/P	80 - 120
2358253	Tin	110	101	P/P	80 - 120
2358253	Titanium	115	105	P/P	80 - 120
2358253	Vanadium	113	103	P/P	80 - 120
2358253	Zinc	108	98.9	P/P	80 - 120
2358254	Calcium	104		P	80 - 120
2358254	Iron	105		P	80 - 120
2358254	Magnesium	98.9		P	80 - 120
2358254	Potassium	95.0		P	80 - 120
2358254	Strontium	101		P	80 - 120
2358254	Tin	99.3		P	80 - 120
2358254	Titanium	102		P	80 - 120
2358254	Vanadium	102		P	80 - 120
2358254	Zinc	98.6		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P420548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358129	Sodium	89.4	101	P/P	80 - 120
2358347	Sodium	97.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P420018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358253	Aluminum	103	105	P/P	80 - 120
2358253	Antimony	107	105	P/P	80 - 120
2358253	Arsenic	104	102	P/P	80 - 120
2358253	Barium	107	105	P/P	80 - 120
2358253	Beryllium	98.4	97.6	P/P	80 - 120
2358253	Boron	103	106	P/P	80 - 120
2358253	Cadmium	102	103	P/P	80 - 120
2358253	Chromium	108	107	P/P	80 - 120
2358253	Cobalt	105	104	P/P	80 - 120
2358253	Copper	103	101	P/P	80 - 120
2358253	Lead	99.1	97.0	P/P	80 - 120
2358253	Manganese	107	107	P/P	80 - 120
2358253	Molybdenum	103	101	P/P	80 - 120
2358253	Nickel	103	102	P/P	80 - 120
2358253	Selenium	107	104	P/P	80 - 120
2358253	Silver	114	111	P/P	80 - 120
2358253	Thallium	99.2	97.8	P/P	80 - 120
2358254	Aluminum	104		P	80 - 120
2358254	Antimony	106		P	80 - 120
2358254	Arsenic	103		P	80 - 120
2358254	Barium	107		P	80 - 120
2358254	Beryllium	98.5		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P420018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358254	Boron	105		P	80 - 120
2358254	Cadmium	102		P	80 - 120
2358254	Chromium	106		P	80 - 120
2358254	Cobalt	104		P	80 - 120
2358254	Copper	101		P	80 - 120
2358254	Lead	97.7		P	80 - 120
2358254	Manganese	107		P	80 - 120
2358254	Molybdenum	99.2		P	80 - 120
2358254	Nickel	102		P	80 - 120
2358254	Selenium	103		P	80 - 120
2358254	Silver	111		P	80 - 120
2358254	Thallium	97.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P420258

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358380	Chloride	102		P	90 - 110
2358665	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P420262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358380	Sulfate	100		P	90 - 110
2358665	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P420419

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358324	Ammonia-N	97.0	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420124

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357832	Kjeldahl Nitrogen	105	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420125

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357817	Kjeldahl Nitrogen	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420126

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357834	Kjeldahl Nitrogen	96.6	99.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358200	NO2NO3-N	92.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358382	Total-P	107	105	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P419857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358753	Aldrin	54.5	49.8	P/P	20 - 82.0
2358753	Alpha-BHC	87.1	85.4	P/P	71 - 109
2358753	Alpha-Chlordane	79.9	71.3	P/P	42 - 106
2358753	Beta-BHC	110	124	P/P	69 - 180
2358753	Beta-Cyfluthrin	83.6	79.7	P/P	18 - 175
2358753	Bifenthrin	73.4	79.7	P/P	21 - 128
2358753	Chlorothalonil	80.4	73.3	P/P	10 - 300
2358753	Cis-Nonachlor	70.2	69.0	P/P	34 - 106
2358753	Cypermethrin	79.9	84.3	P/P	22 - 158
2358753	Dacthal	89.5	85.0	P/P	54 - 116
2358753	DDD-p,p'	74.7	71.5	P/P	34 - 107
2358753	DDE-p,p'	75.5	73.3	P/P	33 - 110
2358753	DDT-p,p'	68.8	69.3	P/P	50 - 122
2358753	Delta-BHC	109	125	P/P	77 - 193
2358753	Deltamethrin	64.0	59.6	P/P	10 - 195
2358753	Dichlobenil	51.2	37.6	P/P	25 - 113
2358753	Dicofol	77.2	80.6	P/P	38 - 247
2358753	Dieldrin	78.5	73.0	P/P	45 - 118
2358753	Endosulfan I	79.5	73.8	P/P	51 - 106
2358753	Endosulfan II	79.4	75.6	P/P	37 - 122
2358753	Endosulfan Sulfate	83.1	83.6	P/P	43 - 132
2358753	Endrin	80.8	73.6	P/P	29 - 101
2358753	Endrin Aldehyde	73.5	52.3	P/P	19 - 110
2358753	Endrin Ketone	74.5	65.6	P/P	60 - 140
2358753	Esfenvalerate	71.7	79.8	P/P	26 - 199
2358753	Ethalfuralin	74.3	76.0	P/P	45 - 99.0
2358753	Fenpropathrin	71.5	74.7	P/P	35 - 120
2358753	Gamma-BHC	95.7	94.9	P/P	63 - 128
2358753	Gamma-Chlordane	83.5	77.9	P/P	40 - 104
2358753	Heptachlor	67.9	58.8	P/P	36 - 97.0
2358753	Heptachlor Epoxide	85.5	76.2	P/P	49 - 184
2358753	Hexachlorobenzene	71.7	69.5	P/P	39 - 96.0
2358753	Kepone	150	175	P/P	10 - 217
2358753	Lambda-Cyhalothrin	70.5	75.1	P/P	21 - 193
2358753	Methoprene	59.3	62.5	P/P	20 - 106
2358753	Methoxychlor	90.3	85.9	P/P	53 - 118
2358753	MGK-264	73.5	70.2	P/P	40 - 118
2358753	Mirex	67.7	63.7	P/P	26 - 92.0
2358753	Oxychlordane	73.1	72.8	P/P	44 - 99.0
2358753	Permethrin	78.5	81.9	P/P	33 - 182

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P419857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358753	Phenothrin	58.1	62.6	P/P	10 - 129
2358753	Piperonyl Butoxide	85.7	98.9	P/P	10 - 211
2358753	Prallethrin	64.7	63.6	P/P	24 - 113
2358753	Tau-Fluvalinate	65.2	75.6	P/P	14 - 149
2358753	Tetramethrin	109	111	P/P	17 - 151
2358753	Trans-Nonachlor	84.6	73.7	P/P	42 - 102
2358753	Triclosan Methyl	76.3	77.3	P/P	48 - 108
2358753	Trifluralin	74.5	75.3	P/P	47 - 96.0
2358766	PCB-1016	94.1	92.5	P/P	46 - 111
2358766	PCB-1260	85.0	81.1	P/P	45 - 114

Reference Method: EPA 8270E
Batch ID: P419914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358210	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	170	125	F/P	50 - 150
2358210	Acetochlor	92.9	103	P/P	65 - 124
2358210	Alachlor	72.1	88.9	P/P	61 - 121
2358210	Ametryn	99.1	120	P/P	52 - 216
2358210	Atrazine Desethyl	73.6	55.3	P/P	15 - 160
2358210	Avobenzone	85.0	70.4	P/P	59 - 206
2358210	Azinphos Methyl	113	114	P/P	40 - 292
2358210	Azoxystrobin	91.6	124	P/P	12 - 242
2358210	Bromacil	74.6	86.6	P/P	54 - 167
2358210	Butylate	43.2	48.7	P/P	14 - 94.0
2358210	Caffeine	74.3	70.6	P/P	10 - 226
2358210	Carbophenothion	82.7	95.6	P/P	49 - 122
2358210	Carfentrazone Ethyl	79.0	93.4	P/P	53 - 138
2358210	Chlorfenapyr	66.8	79.0	P/P	50 - 150
2358210	Chlorpyrifos Ethyl	82.8	92.4	P/P	52 - 122
2358210	Chlorpyrifos Methyl	82.4	91.7	P/P	66 - 117
2358210	Coumaphos	77.5	84.6	P/P	50 - 220
2358210	Cyanazine	151	166	P/P	43 - 245
2358210	Cyprodinil	69.8	88.9	P/P	50 - 150
2358210	Dechlorane Plus	165	121	F/P	50 - 150
2358210	Demeton	89.4	93.0	P/P	43 - 188
2358210	Diazinon	92.6	107	P/P	69 - 131
2358210	Difenoconazole	94.4	90.5	P/P	34 - 231
2358210	Dimethenamid	74.3	80.5	P/P	55 - 118
2358210	Dimethomorph	118	181	P/F	50 - 150
2358210	Disulfoton	73.6	76.8	P/P	38 - 141
2358210	Dithiopyr	76.8	97.2	P/P	42 - 116
2358210	EPTC	48.1	51.2	P/P	18 - 85.0
2358210	Ethion	72.6	61.1	P/P	10 - 131
2358210	Ethoprop	86.8	92.0	P/P	65 - 129
2358210	Etridiazole	55.8	53.9	P/P	50 - 150
2358210	Fenamiphos	82.8	93.3	P/P	31 - 137
2358210	Fenbuconazole	79.4	89.0	P/P	57 - 160
2358210	Fipronil	81.3	99.4	P/P	62 - 132
2358210	Fipronil Desulfinyl	85.6	103	P/P	57 - 131
2358210	Fipronil Sulfide	68.0	90.7	P/P	15 - 138
2358210	Fipronil Sulfone	54.9	87.5	P/P	21 - 134

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P419914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358210	Fluazifop-P-butyl	81.1	98.0	P/P	54 - 133
2358210	Fludioxonil	83.4	95.1	P/P	58 - 127
2358210	Flumioxazin	116	121	P/P	33 - 300
2358210	Flutolanil	70.3	84.6	P/P	42 - 130
2358210	Fluxapyroxad	66.3	65.2	P/P	23 - 141
2358210	Fonofos	73.4	83.8	P/P	58 - 119
2358210	Hexazinone	93.0	89.6	P/P	68 - 172
2358210	Imazalil	85.8	77.8	P/P	48 - 283
2358210	Iprodione	73.8	85.2	P/P	38 - 140
2358210	Loratadine	115	198	P/F	50 - 150
2358210	Malathion	85.8	94.9	P/P	40 - 137
2358210	Metaxyl	75.6	85.4	P/P	21 - 129
2358210	Metolachlor	83.9	94.4	P/P	55 - 122
2358210	Metribuzin	96.0	101	P/P	38 - 187
2358210	Mevinphos	72.9	82.9	P/P	54 - 134
2358210	Molinate	64.4	64.2	P/P	41 - 97.0
2358210	Naled	35.4	103	P/P	10 - 108
2358210	Napropamide	61.4	72.2	P/P	50 - 150
2358210	Norflurazon	72.0	83.2	P/P	32 - 122
2358210	Octinoxate	194	146	F/P	25 - 150
2358210	Oxadiazon	70.5	78.9	P/P	40 - 119
2358210	Oxybenzone	126	101	P/P	59 - 147
2358210	Oxyfluorfen	127	133	P/P	61 - 153
2358210	Parathion Ethyl	92.6	89.0	P/P	59 - 130
2358210	Parathion Methyl	117	107	P/P	65 - 155
2358210	PBDE-47	143	98.6	P/P	50 - 150
2358210	PBDE-99	158	107	F/P	50 - 150
2358210	Pendimethalin	81.5	83.0	P/P	49 - 138
2358210	Phenytoin	32.9	17.9	F/F	50 - 200
2358210	Phorate	74.1	75.4	P/P	54 - 161
2358210	Prodiamine	59.5	82.8	P/P	33 - 161
2358210	Prometon	70.7	66.2	P/P	48 - 140
2358210	Prometryn	75.5	85.8	P/P	55 - 134
2358210	Pronamide	83.4	91.6	P/P	66 - 137
2358210	Propanil	74.0	81.8	P/P	50 - 150
2358210	Propargite	51.1	51.5	P/P	50 - 200
2358210	Propiconazole	68.2	86.9	P/P	36 - 150
2358210	Pyraflufen Ethyl	62.3	74.5	P/P	50 - 150
2358210	Pyridaben	62.3	79.4	P/P	50 - 200
2358210	Pyriproxyfen	87.1	73.5	P/P	10 - 165
2358210	Simazine	92.8	103	P/P	57 - 145
2358210	Stirophos	54.2	59.3	P/P	50 - 150
2358210	Sulfentrazone	71.3	87.7	P/P	34 - 140
2358210	Tebuconazole	45.2	37.4	P/P	10 - 127
2358210	Terbufos	103	112	P/P	59 - 138
2358210	Terbuthylazine	88.1	95.0	P/P	68 - 119
2358210	Thiobencarb	67.3	80.5	P/P	50 - 150
2358210	Tri-o-cresyl Phosphate	145	111	P/P	50 - 150
2358210	Triadimefon	80.0	93.0	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P419857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358766	Chlordane	72.1	80.6	P/P	53 - 126
2358766	Toxaphene	83.9	97.7	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P419904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357804	Acesulfame K	102	103	P/P	40 - 150
2357804	AMPA	82.9	83.0	P/P	40 - 150
2357804	Endothall	86.6	89.6	P/P	40 - 150
2357804	Glufosinate	64.3	69.7	P/P	40 - 150
2357804	Glyphosate	89.2	91.4	P/P	40 - 150
2357804	Sucralose	99.3	97.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357801	2,4-D	107	83.9	P/P	30 - 160
2357801	2,4,5-T	100	90.5	P/P	30 - 160
2357801	Acetaminophen	117	103	P/P	30 - 150
2357801	Acetamiprid	89.2	80.8	P/P	30 - 160
2357801	Afidopyropen	78.1	85.8	P/P	30 - 160
2357801	Bentazon	109	87.9	P/P	30 - 150
2357801	Benzovindiflupyr	80.3	92.3	P/P	30 - 160
2357801	Carbamazepine	87.4	79.3	P/P	30 - 160
2357801	Clothianidin	119	89.5	P/P	30 - 160
2357801	Dinotefuran	129	109	P/P	30 - 160
2357801	Diuron	55.5	63.7	P/P	30 - 160
2357801	Fenuron	133	113	P/P	30 - 160
2357801	Fluridone	110	96.6	P/P	30 - 160
2357801	Hydrocodone	98.4	93.1	P/P	30 - 160
2357801	Ibuprofen	50.1	43.4	P/P	30 - 160
2357801	Imazapyr	134	115	P/P	30 - 160
2357801	Imidacloprid	163	130	F/P	30 - 160
2357801	Linuron	94.5	74.0	P/P	30 - 160
2357801	Mandestrobin	119	102	P/P	30 - 160
2357801	MCPP	108	97.0	P/P	30 - 160
2357801	Naproxen	97.7	91.6	P/P	30 - 160
2357801	Primidone	118	96.2	P/P	30 - 160
2357801	Pyraclostrobin	109	94.9	P/P	30 - 160
2357801	Silvex	95.0	83.7	P/P	30 - 160
2357801	Thiamethoxam	124	112	P/P	30 - 160
2357801	Tolfenpyrad	75.7	61.9	P/P	30 - 160
2357801	Triclopyr	101	88.5	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P420045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357537	3-Hydroxycarbofuran	91.7	86.8	P/P	30 - 160
2357537	Aldicarb	37.4	42.1	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P420045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357537	Aldicarb Sulfone	107	102	P/P	30 - 160
2357537	Aldicarb Sulfoxide	33.1	30.1	P/P	30 - 160
2357537	Carbaryl	62.8	60.7	P/P	30 - 160
2357537	Carbofuran	56.6	56.6	P/P	30 - 160
2357537	Methiocarb	80.7	79.9	P/P	30 - 160
2357537	Methomyl	80.8	78.9	P/P	30 - 160
2357537	Oxamyl	84.4	81.1	P/P	30 - 160
2357537	Propoxur	57.6	53.6	P/P	30 - 160

Reference Method: SM 4500-F- C-2011

Batch ID: P420383

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358674	Fluoride	100	100	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P420121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358295	Organic Carbon	98.4	99.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358292	Color (true)	2.61	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419959

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358122	Turbidity	8.64	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358380	Turbidity	0.182	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358253	Calcium	7.19	Spike	P	0 - 20
2358253	Iron	9.10	Spike	P	0 - 20
2358253	Magnesium	8.74	Spike	P	0 - 20
2358253	Potassium	7.33	Spike	P	0 - 20
2358253	Strontium	7.85	Spike	P	0 - 20
2358253	Tin	8.67	Spike	P	0 - 20
2358253	Titanium	8.77	Spike	P	0 - 20
2358253	Vanadium	8.66	Spike	P	0 - 20
2358253	Zinc	9.04	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358129	Sodium	12.2	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358253	Aluminum	1.27	Spike	P	0 - 20
2358253	Antimony	2.44	Spike	P	0 - 20
2358253	Arsenic	1.50	Spike	P	0 - 20
2358253	Barium	2.18	Spike	P	0 - 20
2358253	Beryllium	0.817	Spike	P	0 - 20
2358253	Boron	2.78	Spike	P	0 - 20
2358253	Cadmium	1.04	Spike	P	0 - 20
2358253	Chromium	0.255	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P420018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358253	Cobalt	0.917	Spike	P	0 - 20
2358253	Copper	1.42	Spike	P	0 - 20
2358253	Lead	2.13	Spike	P	0 - 20
2358253	Manganese	0.242	Spike	P	0 - 20
2358253	Molybdenum	2.52	Spike	P	0 - 20
2358253	Nickel	1.82	Spike	P	0 - 20
2358253	Selenium	2.87	Spike	P	0 - 20
2358253	Silver	2.24	Spike	P	0 - 20
2358253	Thallium	1.43	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P420258

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358380	Chloride	0.815	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P420262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358380	Sulfate	1.02	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P420419

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358324	Ammonia-N	0.527	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357832	Kjeldahl Nitrogen	1.97	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420125

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357817	Kjeldahl Nitrogen	1.73	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P420126

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357834	Kjeldahl Nitrogen	2.27	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P420316

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358200	NO2NO3-N	7.34	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P420227

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358382	Total-P	1.09	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P419857

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358753	Aldrin	8.98	Spike	P	0 - 41
2358753	Alpha-BHC	2.04	Spike	P	0 - 25
2358753	Alpha-Chlordane	11.4	Spike	P	0 - 33
2358753	Beta-BHC	12.1	Spike	P	0 - 36
2358753	Beta-Cyfluthrin	4.71	Spike	P	0 - 42
2358753	Bifenthrin	8.21	Spike	P	0 - 53
2358753	Chlorothalonil	9.16	Spike	P	0 - 71
2358753	Cis-Nonachlor	1.63	Spike	P	0 - 29
2358753	Cypermethrin	5.29	Spike	P	0 - 40
2358753	Dacthal	5.12	Spike	P	0 - 26
2358753	DDD-p,p'	4.38	Spike	P	0 - 39
2358753	DDE-p,p'	2.96	Spike	P	0 - 33
2358753	DDT-p,p'	0.703	Spike	P	0 - 40
2358753	Delta-BHC	13.8	Spike	P	0 - 37
2358753	Deltamethrin	7.01	Spike	P	0 - 100
2358753	Dichlobenil	30.8	Spike	P	0 - 40
2358753	Dicofol	4.34	Spike	P	0 - 31
2358753	Dieldrin	5.20	Spike	P	0 - 27
2358753	Endosulfan I	7.48	Spike	P	0 - 23
2358753	Endosulfan II	4.84	Spike	P	0 - 28
2358753	Endosulfan Sulfate	0.484	Spike	P	0 - 38
2358753	Endrin	9.37	Spike	P	0 - 63
2358753	Endrin Aldehyde	33.6	Spike	P	0 - 60
2358753	Endrin Ketone	12.6	Spike	P	0 - 37
2358753	Esfenvalerate	10.8	Spike	P	0 - 52
2358753	Ethalfuralin	2.38	Spike	P	0 - 23
2358753	Fenpropathrin	4.36	Spike	P	0 - 32
2358753	Gamma-BHC	0.869	Spike	P	0 - 17
2358753	Gamma-Chlordane	7.04	Spike	P	0 - 40
2358753	Heptachlor	14.3	Spike	P	0 - 29
2358753	Heptachlor Epoxide	10.1	Spike	P	0 - 25
2358753	Hexachlorobenzene	3.11	Spike	P	0 - 36
2358753	Kepone	15.2	Spike	P	0 - 93
2358753	Lambda-Cyhalothrin	6.23	Spike	P	0 - 55
2358753	Methoprene	5.27	Spike	P	0 - 53
2358753	Methoxychlor	5.01	Spike	P	0 - 29
2358753	MGK-264	4.50	Spike	P	0 - 35

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P419857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358753	Mirex	6.08	Spike	P	0 - 46
2358753	Oxychlordane	0.358	Spike	P	0 - 29
2358753	Permethrin	4.26	Spike	P	0 - 44
2358753	Phenothrin	7.53	Spike	P	0 - 56
2358753	Piperonyl Butoxide	14.3	Spike	P	0 - 100
2358753	Prallethrin	1.67	Spike	P	0 - 42
2358753	Tau-Fluvalinate	14.7	Spike	P	0 - 54
2358753	Tetramethrin	1.92	Spike	P	0 - 51
2358753	Trans-Nonachlor	13.9	Spike	P	0 - 37
2358753	Triclosan Methyl	1.32	Spike	P	0 - 31
2358753	Trifluralin	1.09	Spike	P	0 - 30
2358766	PCB-1016	1.69	Spike	P	0 - 32
2358766	PCB-1260	4.73	Spike	P	0 - 31

Reference Method: EPA 8270E
Batch ID: P419914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358210	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	30.1	Spike	F	0 - 30
2358210	Acetochlor	10.7	Spike	P	0 - 27
2358210	Alachlor	20.9	Spike	P	0 - 27
2358210	Ametryn	19.0	Spike	P	0 - 34
2358210	Atrazine	2.97	Spike	P	0 - 41
2358210	Atrazine Desethyl	15.6	Spike	P	0 - 38
2358210	Avobenzene	18.8	Spike	P	0 - 30
2358210	Azinphos Methyl	1.03	Spike	P	0 - 62
2358210	Azoxystrobin	17.6	Spike	P	0 - 32
2358210	Bromacil	14.8	Spike	P	0 - 30
2358210	Butylate	12.1	Spike	P	0 - 59
2358210	Caffeine	4.66	Spike	P	0 - 60
2358210	Carbophenothion	14.5	Spike	P	0 - 25
2358210	Carfentrazone Ethyl	16.7	Spike	P	0 - 26
2358210	Chlorfenapyr	16.8	Spike	P	0 - 30
2358210	Chlorpyrifos Ethyl	10.9	Spike	P	0 - 27
2358210	Chlorpyrifos Methyl	10.6	Spike	P	0 - 26
2358210	Coumaphos	8.75	Spike	P	0 - 30
2358210	Cyanazine	8.98	Spike	P	0 - 58
2358210	Cyprodinil	24.1	Spike	P	0 - 30
2358210	Dechlorane Plus	31.3	Spike	F	0 - 30
2358210	Demeton	3.94	Spike	P	0 - 25
2358210	Diazinon	14.6	Spike	P	0 - 29
2358210	Difenoconazole	4.22	Spike	P	0 - 25
2358210	Dimethenamid	7.89	Spike	P	0 - 30
2358210	Dimethomorph	42.4	Spike	F	0 - 30
2358210	Disulfoton	4.20	Spike	P	0 - 33
2358210	Dithiopyr	21.5	Spike	P	0 - 22
2358210	EPTC	6.29	Spike	P	0 - 38
2358210	Ethion	17.2	Spike	P	0 - 79
2358210	Ethoprop	5.80	Spike	P	0 - 23
2358210	Etridiazole	3.52	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P419914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358210	Fenamiphos	11.8	Spike	P	0 - 58
2358210	Fenbuconazole	11.5	Spike	P	0 - 37
2358210	Fipronil	19.9	Spike	P	0 - 33
2358210	Fipronil Desulfinyl	16.0	Spike	P	0 - 26
2358210	Fipronil Sulfide	24.9	Spike	P	0 - 37
2358210	Fipronil Sulfone	28.6	Spike	P	0 - 50
2358210	Fluazifop-P-butyl	18.9	Spike	P	0 - 24
2358210	Fludioxonil	13.2	Spike	P	0 - 26
2358210	Flumioxazin	3.40	Spike	P	0 - 37
2358210	Flutolanil	15.8	Spike	P	0 - 26
2358210	Fluxapyroxad	1.66	Spike	P	0 - 34
2358210	Fonofos	13.2	Spike	P	0 - 27
2358210	Hexazinone	3.76	Spike	P	0 - 36
2358210	Imazalil	9.76	Spike	P	0 - 65
2358210	Iprodione	14.3	Spike	P	0 - 33
2358210	Loratadine	53.3	Spike	F	0 - 30
2358210	Malathion	10.2	Spike	P	0 - 44
2358210	Metalaxyl	10.5	Spike	P	0 - 38
2358210	Metolachlor	11.8	Spike	P	0 - 36
2358210	Metribuzin	4.92	Spike	P	0 - 63
2358210	Mevinphos	12.9	Spike	P	0 - 26
2358210	Molinate	0.316	Spike	P	0 - 40
2358210	Myclobutanil	6.60	Spike	P	0 - 21
2358210	Naled	97.7	Spike	F	0 - 26
2358210	Napropamide	16.1	Spike	P	0 - 30
2358210	Norflurazon	14.5	Spike	P	0 - 24
2358210	Octinoxate	27.8	Spike	P	0 - 30
2358210	Oxadiazon	11.2	Spike	P	0 - 27
2358210	Oxybenzone	21.9	Spike	P	0 - 30
2358210	Oxyfluorfen	4.97	Spike	P	0 - 24
2358210	Parathion Ethyl	4.05	Spike	P	0 - 28
2358210	Parathion Methyl	8.28	Spike	P	0 - 27
2358210	PBDE-47	36.5	Spike	F	0 - 30
2358210	PBDE-99	38.1	Spike	F	0 - 30
2358210	Pendimethalin	1.90	Spike	P	0 - 31
2358210	Phenytoin	59.0	Spike	F	0 - 30
2358210	Phorate	1.62	Spike	P	0 - 27
2358210	Prodiamine	32.7	Spike	P	0 - 52
2358210	Prometon	6.63	Spike	P	0 - 31
2358210	Prometryn	12.7	Spike	P	0 - 28
2358210	Pronamide	9.41	Spike	P	0 - 26
2358210	Propanil	10.0	Spike	P	0 - 30
2358210	Propargite	0.770	Spike	P	0 - 30
2358210	Propiconazole	15.0	Spike	P	0 - 31
2358210	Pyraflufen Ethyl	17.9	Spike	P	0 - 30
2358210	Pyridaben	20.1	Spike	P	0 - 30
2358210	Pyriproxyfen	16.9	Spike	P	0 - 50
2358210	Simazine	10.5	Spike	P	0 - 29
2358210	Stirophos	9.02	Spike	P	0 - 30
2358210	Sulfentrazone	19.1	Spike	P	0 - 33
2358210	Tebuconazole	15.4	Spike	P	0 - 44

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P419914

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358210	Terbufos	7.63	Spike	P	0 - 29
2358210	Terbutylazine	7.55	Spike	P	0 - 27
2358210	Thiobencarb	17.8	Spike	P	0 - 30
2358210	Tri-o-cresyl Phosphate	27.1	Spike	P	0 - 30
2358210	Triadimefon	15.1	Spike	P	0 - 30

Reference Method: EPA 8276

Batch ID: P419857

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358766	Chlordane	11.2	Spike	P	0 - 25
2358766	Toxaphene	15.2	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P419904

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357804	Acesulfame K	1.27	Spike	P	0 - 30
2357804	AMPA	0.0482	Spike	P	0 - 30
2357804	Endothall	3.35	Spike	P	0 - 30
2357804	Glufosinate	8.01	Spike	P	0 - 30
2357804	Glyphosate	2.46	Spike	P	0 - 30
2357804	Sucralose	2.34	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P419978

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357801	2,4-D	24.4	Spike	P	0 - 30
2357801	2,4,5-T	10.3	Spike	P	0 - 30
2357801	Acetaminophen	12.4	Spike	P	0 - 30
2357801	Acetamiprid	9.84	Spike	P	0 - 30
2357801	Afidopyropen	9.45	Spike	P	0 - 30
2357801	Bentazon	16.9	Spike	P	0 - 30
2357801	Benzovindiflupyr	14.0	Spike	P	0 - 30
2357801	Carbamazepine	9.70	Spike	P	0 - 30
2357801	Clothianidin	28.3	Spike	P	0 - 30
2357801	Dinotefuran	15.6	Spike	P	0 - 30
2357801	Diuron	13.7	Spike	P	0 - 30
2357801	Fenuron	16.6	Spike	P	0 - 30
2357801	Fluridone	13.3	Spike	P	0 - 30
2357801	Hydrocodone	5.46	Spike	P	0 - 30
2357801	Ibuprofen	14.3	Spike	P	0 - 30
2357801	Imazapyr	14.6	Spike	P	0 - 30
2357801	Imidacloprid	22.3	Spike	P	0 - 30
2357801	Linuron	24.3	Spike	P	0 - 30
2357801	Mandestrobin	14.6	Spike	P	0 - 30
2357801	MCP	10.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P419978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357801	Naproxen	6.51	Spike	P	0 - 30
2357801	Primidone	20.1	Spike	P	0 - 30
2357801	Pyraclostrobin	14.0	Spike	P	0 - 30
2357801	Silvex	12.6	Spike	P	0 - 30
2357801	Thiamethoxam	10.8	Spike	P	0 - 30
2357801	Tolfenpyrad	20.0	Spike	P	0 - 30
2357801	Triclopyr	12.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P420045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357537	3-Hydroxycarbofuran	5.46	Spike	P	0 - 30
2357537	Aldicarb	11.9	Spike	P	0 - 30
2357537	Aldicarb Sulfone	4.51	Spike	P	0 - 30
2357537	Aldicarb Sulfoxide	9.64	Spike	P	0 - 30
2357537	Carbaryl	3.34	Spike	P	0 - 30
2357537	Carbofuran	0.0422	Spike	P	0 - 30
2357537	Methiocarb	1.05	Spike	P	0 - 30
2357537	Methomyl	2.40	Spike	P	0 - 30
2357537	Oxamyl	3.98	Spike	P	0 - 30
2357537	Propoxur	7.12	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P420379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358674	Total Alkalinity	1.87	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P420436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358278	TDS	4.62	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P420383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358674	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P420121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358295	Organic Carbon	0.811	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2358342
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	61.5	P	30 - 160

Lab Sample ID: 2358343
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	90.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.8	P	30 - 160
EPA 8321B	Diuron-d6	70.0	P	30 - 160
EPA 8321B	Endothall-d6	83.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.3	P	30 - 160
EPA 8321B	Primidone-d5	106	P	30 - 160
EPA 8321B	Sucralose-d6	95.6	P	30 - 160

Lab Sample ID: 2358344
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	50.1	P	29 - 130
EPA 8270E	Decachlorobiphenyl	34.6	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	45.1	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	39.2	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	38.9	P	30 - 101
EPA 8276	PCNB	72.6	P	48 - 121

Lab Sample ID: 2358345
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	63.4	P	20 - 200
EPA 8270E	Simazine-d10	103	P	71 - 140
EPA 8270E	Terbufos-d10	111	P	62 - 131
EPA 8270E	Terphenyl-d14	113	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A114859

Included Lab Sample IDs: 2358323, 2358325, 2358327, 2358329, 2358330

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

Reference Method: EPA 8321B

Run ID: A114873

Included Lab Sample IDs: 2358343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	108	114	P/P	60 - 160
Sucralose	105	104	P/P	60 - 160

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114874

Included Lab Sample IDs: 2358323, 2358325, 2358327, 2358329, 2358330

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

Reference Method: EPA 8321B

Run ID: A114916

Included Lab Sample IDs: 2358343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	98.5	P/P	50 - 150
2,4,5-T	103	102	P/P	50 - 150
Acetaminophen	107	109	P/P	60 - 160
Acetamiprid	101	99.2	P/P	50 - 150
Afidopyropen	111	108	P/P	50 - 150
Bentazon	85.2	105	P/P	50 - 160
Benzovindiflupyr	106	106	P/P	50 - 160
Carbamazepine	114	110	P/P	60 - 150
Clothianidin	105	108	P/P	60 - 150
Dinotefuran	110	110	P/P	50 - 150
Diuron	115	111	P/P	60 - 160
Fenuron	100	101	P/P	60 - 150
Fluridone	112	105	P/P	60 - 160
Hydrocodone	110	112	P/P	60 - 150
Ibuprofen	92.4	109	P/P	50 - 160
Imazapyr	112	107	P/P	50 - 150
Imidacloprid	103	90.2	P/P	60 - 150
Linuron	111	104	P/P	60 - 150
Mandestrobin	120	118	P/P	50 - 150
MCPP	102	90.2	P/P	50 - 150
Naproxen	118	94.2	P/P	50 - 160
Primidone	101	106	P/P	60 - 150
Pyraclostrobin	116	114	P/P	60 - 150
Silvex	105	94.7	P/P	50 - 150
Thiamethoxam	110	103	P/P	50 - 150
Tolfenpyrad	128	118	P/P	60 - 150
Triclopyr	91.0	97.3	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114925
Included Lab Sample IDs: 2358343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	106	106	P/P	60 - 160
Endothall	83.4	70.3	P/P	60 - 160
Glufosinate	78.4	70.3	P/P	60 - 160
Glyphosate	100	101	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A114944
Included Lab Sample IDs: 2358324, 2358326, 2358328, 2358331, 2358332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	96.6	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A114971
Included Lab Sample IDs: 2358344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	93.0		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114976
Included Lab Sample IDs: 2358344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	98.8		P	80 - 120
Alpha-Chlordane	102		P	80 - 120
Beta-BHC	109		P	80 - 120
Beta-Cyfluthrin	98.3		P	80 - 120
Bifenthrin	118		P	80 - 120
Cis-Nonachlor	100		P	80 - 120
Cypermethrin	101		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	99.1		P	80 - 120
Delta-BHC	99.7		P	80 - 120
Deltamethrin	111		P	80 - 120
Dichlobenil	112		P	80 - 120
Dicofol	96.4		P	80 - 120
Endosulfan I	96.2		P	80 - 120
Endosulfan II	93.2		P	80 - 120
Endosulfan Sulfate	97.4		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	97.8		P	80 - 120
Esfenvalerate	94.8		P	80 - 120
Ethalfuralin	96.8		P	80 - 120
Fenpropathrin	97.3		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114976
Included Lab Sample IDs: 2358344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor	99.4		P	80 - 120
Heptachlor Epoxide	99.7		P	80 - 120
Hexachlorobenzene	104		P	80 - 120
Kepone	76.9*		F	80 - 120
Lambda-Cyhalothrin	98.9		P	80 - 120
Methoprene	96.1		P	80 - 120
Methoxychlor	107		P	80 - 120
MGK-264	93.8		P	80 - 120
Mirex	99.3		P	80 - 120
Oxychlordane	98.9		P	80 - 120
Permethrin	99.0		P	80 - 120
Phenothrin	98.1		P	80 - 120
Piperonyl Butoxide	83.1		P	80 - 120
Prallethrin	96.6		P	80 - 120
Tau-Fluvalinate	98.6		P	80 - 120
Tetramethrin	116		P	80 - 120
Trans-Nonachlor	101		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	103		P	80 - 120

Reference Method: EPA 8321B
Run ID: A114983
Included Lab Sample IDs: 2358342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	103	99.9	P/P	60 - 150
Aldicarb	124	125	P/P	60 - 150
Aldicarb Sulfone	117	115	P/P	50 - 150
Aldicarb Sulfoxide	109	131	P/P	50 - 150
Carbaryl	99.8	105	P/P	60 - 150
Carbofuran	98.6	99.6	P/P	50 - 150
Methiocarb	85.4	115	P/P	50 - 150
Methomyl	108	108	P/P	50 - 150
Oxamyl	106	104	P/P	50 - 150
Propoxur	99.8	102	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A114988
Included Lab Sample IDs: 2358345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.9		P	80 - 120
Alachlor	93.6		P	80 - 120
Ametryn	95.4		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	100		P	80 - 120
Azinphos Methyl	94.5		P	80 - 120
Azoxystrobin	98.2		P	80 - 120
Bromacil	99.9		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	87.3		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
 Run ID: A114988
 Included Lab Sample IDs: 2358345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	96.9		P	80 - 120
Carfentrazone Ethyl	90.9		P	80 - 120
Chlorfenapyr	94.1		P	80 - 120
Chlorpyrifos Ethyl	98.8		P	80 - 120
Chlorpyrifos Methyl	105		P	80 - 120
Coumaphos	97.6		P	80 - 120
Cyanazine	89.6		P	80 - 120
Cyprodinil	90.2		P	80 - 120
Demeton	97.1		P	80 - 120
Diazinon	95.1		P	80 - 120
Difenoconazole	94.9		P	80 - 120
Dimethenamid	103		P	80 - 120
Dimethomorph	96.8		P	80 - 120
Disulfoton	91.7		P	80 - 120
Dithiopyr	99.1		P	80 - 120
EPTC	98.6		P	80 - 120
Ethion	94.7		P	80 - 120
Ethoprop	96.9		P	80 - 120
Etridiazole	93.5		P	80 - 120
Fenamiphos	106		P	80 - 120
Fenbuconazole	99.8		P	80 - 120
Fipronil	93.8		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	90.9		P	80 - 120
Fipronil Sulfone	89.2		P	80 - 120
Fluazifop-P-butyl	92.4		P	80 - 120
Fludioxonil	93.6		P	80 - 120
Flumioxazin	89.8		P	80 - 120
Flutolanil	98.5		P	80 - 120
Fluxapyroxad	93.5		P	80 - 120
Fonofos	98.8		P	80 - 120
Hexazinone	98.9		P	80 - 120
Imazalil	92.5		P	80 - 120
Iprodione	90.4		P	80 - 120
Loratadine	98.9		P	80 - 120
Malathion	102		P	80 - 120
Metalaxyl	94.6		P	80 - 120
Metolachlor	94.1		P	80 - 120
Metribuzin	96.4		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	98.0		P	80 - 120
Myclobutanil	93.2		P	80 - 120
Naled	116		P	80 - 120
Napropamide	97.3		P	80 - 120
Norflurazon	98.0		P	80 - 120
Oxadiazon	92.7		P	80 - 120
Oxyfluorfen	88.8		P	80 - 120
Parathion Ethyl	99.2		P	80 - 120
Parathion Methyl	107		P	80 - 120
Pendimethalin	99.2		P	80 - 120
Phenytol	98.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114988
Included Lab Sample IDs: 2358345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phorate	97.4		P	80 - 120
Prodiamine	84.2		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	98.1		P	80 - 120
Propanil	92.8		P	80 - 120
Propargite	95.7		P	80 - 120
Propiconazole	102		P	80 - 120
Pyraflufen Ethyl	95.4		P	80 - 120
Pyridaben	90.7		P	80 - 120
Pyriproxyfen	94.9		P	80 - 120
Simazine	99.9		P	80 - 120
Stirophos	101		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	94.9		P	80 - 120
Terbufos	98.8		P	80 - 120
Terbutylazine	98.6		P	80 - 120
Thiobencarb	96.7		P	80 - 120
Triadimefon	92.1		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114999
Included Lab Sample IDs: 2358323, 2358325, 2358327, 2358329, 2358330

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A115010
Included Lab Sample IDs: 2358346, 2358347, 2358348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	105	107	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Barium	102	103	P/P	90 - 110
Beryllium	98.6	97.6	P/P	90 - 110
Boron	101	104	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Cobalt	102	101	P/P	90 - 110
Copper	99.5	99.0	P/P	90 - 110
Lead	95.0	95.8	P/P	90 - 110
Manganese	105	105	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	101	100	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Thallium	95.6	95.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115011

Included Lab Sample IDs: 2358332

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

Reference Method: EPA 8270E

Run ID: A115014

Included Lab Sample IDs: 2358344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	99.3		P	80 - 120
PCB-1260	97.9		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115024

Included Lab Sample IDs: 2358324, 2358326, 2358328, 2358331, 2358332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	96.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115026

Included Lab Sample IDs: 2358344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlorothalonil	107		P	80 - 120
Dieldrin	99.3		P	80 - 120
Endrin Ketone	98.9		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115032

Included Lab Sample IDs: 2358324, 2358326, 2358328, 2358331, 2358332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	97.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115060

Included Lab Sample IDs: 2358346, 2358347, 2358348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	103	P/P	90 - 110
Calcium	105	104	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Iron	105	103	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Magnesium	103	101	P/P	90 - 110
Potassium	101	99.8	P/P	90 - 110
Potassium	99.8	99.0	P/P	90 - 110
Strontium	94.1	99.2	P/P	90 - 110
Strontium	99.1	94.1	P/P	90 - 110
Tin	93.2	98.1	P/P	90 - 110
Tin	98.4	93.2	P/P	90 - 110
Titanium	93.3	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115060

Included Lab Sample IDs: 2358346, 2358347, 2358348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Titanium	98.6	93.3	P/P	90 - 110
Vanadium	93.5	97.9	P/P	90 - 110
Vanadium	98.2	93.5	P/P	90 - 110
Zinc	93.7	96.6	P/P	90 - 110
Zinc	97.5	93.7	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A115070

Included Lab Sample IDs: 2358323, 2358325, 2358327, 2358329, 2358330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.5	102	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A115070

Included Lab Sample IDs: 2358323, 2358325, 2358327, 2358329, 2358330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115073

Included Lab Sample IDs: 2358345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	99.0		P	80 - 120
Avobenzene	95.3		P	80 - 120
Dechlorane Plus	96.4		P	80 - 120
Octinoxate	95.6		P	80 - 120
Oxybenzone	94.3		P	80 - 120
PBDE-47	96.5		P	80 - 120
PBDE-99	97.1		P	80 - 120
Tri-o-cresyl Phosphate	96.5		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115092

Included Lab Sample IDs: 2358324, 2358326, 2358328, 2358331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	104	P/P	90 - 110
Kjeldahl Nitrogen	104	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A115096

Included Lab Sample IDs: 2358324, 2358326, 2358328, 2358331, 2358332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	98.7	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115175

Included Lab Sample IDs: 2358346, 2358347, 2358348

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	98.3	98.2	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	102				2.61	
EPA 180.1 Rev. 2.0	Turbidity	101				8.64	
	Turbidity	101				0.182	
EPA 200.7 Rev. 4.4	Calcium	104	104	104			7.19
	Iron	108	118	108	105		9.10
	Magnesium	105	118	105	98.9		8.74
	Potassium	101	112	101	95.0		7.33
	Sodium	95.9	89.4	101	97.0		12.2
	Strontium	104	113	104	101		7.85
	Tin	102	110	101	99.3		8.67
	Titanium	104	115	105	102		8.77
	Vanadium	102	113	103	102		8.66
	Zinc	99.9	108	98.9	98.6		9.04
EPA 200.8 Rev. 5.4	Aluminum	100	103	105	104		1.27
	Antimony	101	107	105	106		2.44
	Arsenic	100	104	102	103		1.50
	Barium	104	107	105	107		2.18
	Beryllium	94.2	98.4	97.6	98.5		0.817
	Boron	104	106	105	103		2.78
	Cadmium	97.8	102	103	102		1.04
	Chromium	101	108	107	106		0.255
	Cobalt	100	105	104	104		0.917
	Copper	97.9	103	101	101		1.42
	Lead	93.8	99.1	97.0	97.7		2.13
	Manganese	103	107	107	107		0.242
	Molybdenum	97.3	103	101	99.2		2.52
	Nickel	99.9	103	102	102		1.82
	Selenium	102	107	104	103		2.87
	Silver	112	114	111	111		2.24
	Thallium	93.3	99.2	97.8	97.3		1.43
EPA 300.0 Rev. 2.1	Chloride	104	102	102		0.815	
	Sulfate	103	100	102		1.02	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	97.0	96.4			0.527
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.9	105	107			1.97
	Kjeldahl Nitrogen	98.8	104	102			1.73
	Kjeldahl Nitrogen	103	96.6	99.4			2.27
EPA 353.2 Rev. 2.0	NO2NO3-N	101	92.5	100			7.34
EPA 365.1 Rev. 2.0	Total-P	103	107	105			1.09
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	130	170	125			30.1
	Acetochlor	97.9	92.9	103			10.7
	Alachlor	84.9	72.1	88.9			20.9
	Aldrin	44.5	54.5	49.8			8.98
	Alpha-BHC	90.5	87.1	85.4			2.04
	Alpha-Chlordane	71.7	79.9	71.3			11.4
	Ametryn	86.4	99.1	120			19.0
	Atrazine	96.7					2.97
	Atrazine Desethyl	69.5	73.6	55.3			15.6
	Avobenzone	79.1	85.0	70.4			18.8
	Azinphos Methyl	129	113	114			1.03
	Azoxystrobin	110	91.6	124			17.6
	Beta-BHC	117	110	124			12.1
	Beta-Cyfluthrin	85.9	83.6	79.7			4.71

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Bifenthrin	78.7	73.4	79.7			8.21
	Bromacil	86.7	74.6	86.6			14.8
	Butylate	62.5	43.2	48.7			12.1
	Caffeine	64.5	74.3	70.6			4.66
	Carbophenothion	101	82.7	95.6			14.5
	Carfentrazone Ethyl	101	79.0	93.4			16.7
	Chlorfenapyr	96.6	66.8	79.0			16.8
	Chlorothalonil	91.5	80.4	73.3			9.16
	Chlorpyrifos Ethyl	97.4	82.8	92.4			10.9
	Chlorpyrifos Methyl	97.7	82.4	91.7			10.6
	Cis-Nonachlor	67.3	70.2	69.0			1.63
	Coumaphos	101	77.5	84.6			8.75
	Cyanazine	170	151	166			8.98
	Cypermethrin	87.1	79.9	84.3			5.29
	Cyprodinil	89.7	69.8	88.9			24.1
	Dacthal	88.5	89.5	85.0			5.12
	DDD-p,p'	71.6	74.7	71.5			4.38
	DDE-p,p'	72.4	75.5	73.3			2.96
	DDT-p,p'	67.9	68.8	69.3			0.703
	Dechlorane Plus	145	165	121			31.3
	Delta-BHC	124	109	125			13.8
	Deltamethrin	38.6	64.0	59.6			7.01
	Demeton	80.1	89.4	93.0			3.94
	Diazinon	94.3	92.6	107			14.6
	Dichlobenil	57.0	51.2	37.6			30.8
	Dicofol	76.2	77.2	80.6			4.34
	Dieldrin	73.5	78.5	73.0			5.20
	Difenoconazole	124	94.4	90.5			4.22
	Dimethenamid	79.5	74.3	80.5			7.89
	Dimethomorph	107	118	181			42.4
	Disulfoton	90.5	73.6	76.8			4.20
	Dithiopyr	94.5	76.8	97.2			21.5
	Endosulfan I	73.8	79.5	73.8			7.48
	Endosulfan II	82.5	79.4	75.6			4.84
	Endosulfan Sulfate	89.4	83.1	83.6			0.484
	Endrin	74.6	80.8	73.6			9.37
	Endrin Aldehyde	77.5	73.5	52.3			33.6
	Endrin Ketone	71.2	74.5	65.6			12.6
	EPTC	59.3	48.1	51.2			6.29
	Esfenvalerate	82.4	71.7	79.8			10.8
	Ethalfuralin	72.7	74.3	76.0			2.38
	Ethion	84.1	72.6	61.1			17.2
	Ethoprop	87.9	86.8	92.0			5.80
	Etridiazole	63.6	55.8	53.9			3.52
	Fenamiphos	112	82.8	93.3			11.8
	Fenbuconazole	96.3	79.4	89.0			11.5
	Fenpropathrin	78.7	71.5	74.7			4.36
	Fipronil	88.2	81.3	99.4			19.9
	Fipronil Desulfinyl	103	85.6	103			16.0
	Fipronil Sulfide	77.6	68.0	90.7			24.9
	Fipronil Sulfone	74.8	54.9	87.5			28.6
	Fluazifop-P-butyl	98.1	81.1	98.0			18.9
	Fludioxonil	86.8	83.4	95.1			13.2
	Flumioxazin	129	116	121			3.40

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Flutolanil	90.1	70.3	84.6			15.8
	Fluxapyroxad	83.0	66.3	65.2			1.66
	Fonofos	85.1	73.4	83.8			13.2
	Gamma-BHC	96.9	95.7	94.9			0.869
	Gamma-Chlordane	72.8	83.5	77.9			7.04
	Heptachlor	65.3	67.9	58.8			14.3
	Heptachlor Epoxide	76.9	85.5	76.2			10.1
	Hexachlorobenzene	72.5	71.7	69.5			3.11
	Hexazinone	93.7	93.0	89.6			3.76
	Imazalil	76.5	85.8	77.8			9.76
	Iprodione	91.2	73.8	85.2			14.3
	Kepone	174	150	175			15.2
	Lambda-Cyhalothrin	79.3	70.5	75.1			6.23
	Loratadine	110	115	198			53.3
	Malathion	104	85.8	94.9			10.2
	Metalaxyl	84.7	75.6	85.4			10.5
	Methoprene	65.4	59.3	62.5			5.27
	Methoxychlor	85.7	90.3	85.9			5.01
	Metolachlor	91.5	83.9	94.4			11.8
	Metribuzin	92.0	96.0	101			4.92
	Mevinphos	78.3	72.9	82.9			12.9
	MGK-264	66.8	73.5	70.2			4.50
	Mirex	59.4	67.7	63.7			6.08
	Molinate	71.6	64.4	64.2			0.316
	Myclobutanil	91.6					6.60
	Naled	96.5	35.4	103			97.7
	Napropamide	84.5	61.4	72.2			16.1
	Norflurazon	86.3	72.0	83.2			14.5
	Octinoxate	125	194	146			27.8
	Oxadiazon	78.2	70.5	78.9			11.2
	Oxybenzone	91.6	126	101			21.9
	Oxychlordane	70.5	73.1	72.8			0.358
	Oxyfluorfen	133	127	133			4.97
	Parathion Ethyl	94.3	92.6	89.0			4.05
	Parathion Methyl	105	117	107			8.28
	PBDE-47	109	143	98.6			36.5
	PBDE-99	124	158	107			38.1
	PCB-1016	97.6	94.1	92.5			1.69
	PCB-1260	91.2	85.0	81.1			4.73
	Pendimethalin	81.6	81.5	83.0			1.90
	Permethrin	82.2	78.5	81.9			4.26
	Phenothrin	54.4	58.1	62.6			7.53
	Phenytoin	24.4	32.9	17.9			59.0
	Phorate	81.1	74.1	75.4			1.62
	Piperonyl Butoxide	95.8	85.7	98.9			14.3
	Prallethrin	58.7	64.7	63.6			1.67
	Prodiamine	67.9	59.5	82.8			32.7
	Prometon	80.7	70.7	66.2			6.63
	Prometryn	87.5	75.5	85.8			12.7
	Pronamide	101	83.4	91.6			9.41
	Propanil	80.5	74.0	81.8			10.0
	Propargite	81.0	51.1	51.5			0.770
	Propiconazole	89.6	68.2	86.9			15.0
	Pyraflufen Ethyl	87.7	62.3	74.5			17.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Pyridaben	102	62.3	79.4			20.1
	Pyriproxyfen	87.0	87.1	73.5			16.9
	Simazine	100	92.8	103			10.5
	Stirophos	83.0	54.2	59.3			9.02
	Sulfentrazone	88.0	71.3	87.7			19.1
	Tau-Fluvalinate	75.9	65.2	75.6			14.7
	Tebuconazole	59.6	45.2	37.4			15.4
	Terbufos	108	103	112			7.63
	Terbutylazine	90.8	88.1	95.0			7.55
	Tetramethrin	95.4	109	111			1.92
	Thiobencarb	85.6	67.3	80.5			17.8
	Trans-Nonachlor	76.6	84.6	73.7			13.9
	Tri-o-cresyl Phosphate	112	145	111			27.1
	Triadimefon	86.7	80.0	93.0			15.1
	Triclosan Methyl	78.1	76.3	77.3			1.32
	Trifluralin	75.0	74.5	75.3			1.09
EPA 8276	Chlordane	77.1	80.6	72.1			11.2
	Toxaphene	87.3	83.9	97.7			15.2
EPA 8321B	2,4-D	73.0	107	83.9			24.4
	2,4,5-T	68.7	100	90.5			10.3
	3-Hydroxycarbofuran	80.8	91.7	86.8			5.46
	Acesulfame K	103	102	103			1.27
	Acetaminophen	95.6	117	103			12.4
	Acetamiprid	81.4	89.2	80.8			9.84
	Afidopyropen	60.7	78.1	85.8			9.45
	Aldicarb	44.6	37.4	42.1			11.9
	Aldicarb Sulfone	92.1	107	102			4.51
	Aldicarb Sulfoxide	58.9	33.1	30.1			9.64
	AMPA	105	82.9	83.0			0.0482
	Bentazon	93.9	109	87.9			16.9
	Benzovindiflupyr	79.6	80.3	92.3			14.0
	Carbamazepine	78.2	87.4	79.3			9.70
	Carbaryl	64.8	62.8	60.7			3.34
	Carbofuran	63.7	56.6	56.6			0.0422
	Clothianidin	100	119	89.5			28.3
	Dinotefuran	98.2	129	109			15.6
	Diuron	51.0	55.5	63.7			13.7
	Endothall	98.5	86.6	89.6			3.35
	Fenuron	109	133	113			16.6
	Fluridone	92.5	110	96.6			13.3
	Glufosinate	88.5	64.3	69.7			8.01
	Glyphosate	103	89.2	91.4			2.46
	Hydrocodone	88.4	98.4	93.1			5.46
	Ibuprofen	50.8	50.1	43.4			14.3
	Imazapyr	103	134	115			14.6
	Imidacloprid	123	163	130			22.3
	Linuron	84.2	94.5	74.0			24.3
	Mandestrobin	102	119	102			14.6
	MCPP	75.6	108	97.0			10.3
	Methiocarb	74.0	80.7	79.9			1.05
	Methomyl	83.5	80.8	78.9			2.40
	Naproxen	76.7	97.7	91.6			6.51
	Oxamyl	80.2	84.4	81.1			3.98
	Primidone	88.6	118	96.2			20.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Propoxur	58.8	57.6	53.6		7.12
	Pyraclostrobin	86.4	109	94.9		14.0
	Silvex	66.1	95.0	83.7		12.6
	Sucralose	106	99.3	97.0		2.34
	Thiamethoxam	102	124	112		10.8
	Tolfenpyrad	50.6	75.7	61.9		20.0
	Triclopyr	68.6	101	88.5		12.8
SM 2320 B-2011	Total Alkalinity	98.6			1.87	
SM 2540 C-2011	TDS				4.62	
SM 4500-F- C-2011	Fluoride	102	100	100		0.0
SM 5310 B-2011	Organic Carbon	97.0	98.4	99.6		0.811

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2358323, 2358325, 2358327, 2358329, 2358330
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2358323, 2358325, 2358327, 2358329, 2358330
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2358346, 2358347, 2358348
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2358346, 2358347, 2358348
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2358323, 2358325, 2358327, 2358329, 2358330
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2358323, 2358325, 2358327, 2358329, 2358330
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2358324, 2358326, 2358328, 2358331, 2358332
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2358324, 2358326, 2358328, 2358331, 2358332
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2358324, 2358326, 2358328, 2358331, 2358332
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2358324, 2358326, 2358328, 2358331, 2358332
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2358345
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2358344
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2358345
EPA 8270E	PCBs in water matrices by GC/MS/MS	2358344
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2358344
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2358342
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2358343
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2358323, 2358325, 2358327, 2358329, 2358330
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2358346, 2358347, 2358348
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2358323, 2358325, 2358327, 2358329, 2358330
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2358323, 2358325, 2358327, 2358329, 2358330
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2358323, 2358325, 2358327, 2358329, 2358330
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2358324, 2358326, 2358328, 2358331, 2358332

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	09/21/2022			09/21/2022 14:56	Samantha L Bates	2358323
	09/21/2022			09/21/2022 14:57	Samantha L Bates	2358325, 2358327
	09/21/2022			09/21/2022 14:58	Samantha L Bates	2358329, 2358330
EPA 180.1 Rev. 2.0	09/21/2022			09/21/2022 14:48	Chandler E Cox	2358323
	09/21/2022			09/21/2022 14:49	Chandler E Cox	2358325
	09/21/2022			09/21/2022 14:51	Chandler E Cox	2358327
	09/21/2022			09/21/2022 14:53	Chandler E Cox	2358329
	09/21/2022			09/21/2022 14:59	Chandler E Cox	2358330
EPA 200.7 Rev. 4.4	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 18:10	McKinley C Carter	2358346
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 18:44	McKinley C Carter	2358347
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 18:48	McKinley C Carter	2358348
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 20:30	McKinley C Carter	2358346
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 20:35	McKinley C Carter	2358347
EPA 200.8 Rev. 5.4	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 20:48	McKinley C Carter	2358348
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 18:00	Emily M Philpot	2358346
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 18:09	Emily M Philpot	2358347
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 18:18	Emily M Philpot	2358348
	09/21/2022			09/28/2022 10:49	Anna M. Plaviak	2358323
EPA 300.0 Rev. 2.1	09/21/2022			09/28/2022 11:04	Anna M. Plaviak	2358325
	09/21/2022			09/28/2022 11:19	Anna M. Plaviak	2358327
	09/21/2022			09/28/2022 11:34	Anna M. Plaviak	2358329
	09/21/2022			09/28/2022 11:49	Anna M. Plaviak	2358330
	09/21/2022			10/03/2022 14:04	Ping Hua	2358324
EPA 350.1 Rev. 2.0	09/21/2022			10/03/2022 14:08	Ping Hua	2358326
	09/21/2022			10/03/2022 14:10	Ping Hua	2358328
	09/21/2022			10/03/2022 14:11	Ping Hua	2358331
	09/21/2022			10/03/2022 14:12	Ping Hua	2358332
	09/21/2022	09/27/2022 14:11	Samantha L Bates	09/28/2022 13:39	Samantha L Bates	2358332
EPA 351.2 Rev. 2.0	09/21/2022	09/27/2022 14:11	Samantha L Bates	10/03/2022 13:31	Samantha L Bates	2358324
	09/21/2022	09/27/2022 14:11	Samantha L Bates	10/03/2022 13:33	Samantha L Bates	2358326
	09/21/2022	09/27/2022 14:11	Samantha L Bates	10/03/2022 13:35	Samantha L Bates	2358328
	09/21/2022	09/27/2022 14:11	Samantha L Bates	10/03/2022 14:01	Samantha L Bates	2358331
	09/21/2022			09/29/2022 15:36	Judith K. Clark	2358324
EPA 353.2 Rev. 2.0	09/21/2022			09/29/2022 15:37	Judith K. Clark	2358326
	09/21/2022			09/29/2022 15:38	Judith K. Clark	2358328
	09/21/2022			09/29/2022 15:40	Judith K. Clark	2358331
	09/21/2022			09/29/2022 15:41	Judith K. Clark	2358332
	09/21/2022	09/28/2022 14:15	Simonne.V. Calhoun	09/29/2022 11:34	James L Waggeberby	2358324
EPA 365.1 Rev. 2.0	09/21/2022	09/28/2022 14:15	Simonne.V. Calhoun	09/29/2022 11:35	James L Waggeberby	2358326
	09/21/2022	09/28/2022 14:15	Simonne.V. Calhoun	09/29/2022 11:36	James L Waggeberby	2358328, 2358331

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	09/21/2022	09/28/2022 14:15	Simonne.V. Calhoun	09/29/2022 11:37	James L Waggeberby	2358332
EPA 8270E	09/21/2022	09/22/2022 10:00	Rasheda Ghaffari	09/26/2022 03:00	Michael Poppell	2358345
	09/21/2022	09/22/2022 10:00	Rasheda Ghaffari	09/30/2022 22:05	Lipi Saha	2358345
	09/21/2022	09/23/2022 08:00	Fe-Val Siddell	09/27/2022 01:32	Julie Wi	2358344
	09/21/2022	09/23/2022 08:00	Fe-Val Siddell	09/27/2022 19:35	Vandana T. Nagar	2358344
	09/21/2022	09/23/2022 08:00	Fe-Val Siddell	09/28/2022 22:20	Vandana T. Nagar	2358344
EPA 8276	09/21/2022	09/23/2022 08:00	Fe-Val Siddell	09/27/2022 13:36	Arthur Maknenko	2358344
EPA 8321B	09/21/2022	09/22/2022 14:00	Umesh Chiluwal	09/23/2022 10:24	Umesh Chiluwal	2358343
	09/21/2022	09/22/2022 14:00	Umesh Chiluwal	09/23/2022 18:14	Umesh Chiluwal	2358343
	09/21/2022	09/23/2022 08:00	June Rhew	09/24/2022 03:59	Juyoung Kim	2358343
	09/21/2022	09/26/2022 09:00	June Rhew	09/27/2022 22:38	Juyoung Kim	2358342
SM 2320 B-2011	09/21/2022			10/01/2022 13:48	Dale L. Simmons	2358323
	09/21/2022			10/01/2022 13:58	Dale L. Simmons	2358325
	09/21/2022			10/01/2022 14:08	Dale L. Simmons	2358327
	09/21/2022			10/01/2022 14:18	Dale L. Simmons	2358329
	09/21/2022			10/01/2022 14:27	Dale L. Simmons	2358330
SM 2340 B-2011	09/21/2022			09/30/2022 18:10	McKinley C Carter	2358346
	09/21/2022			09/30/2022 18:44	McKinley C Carter	2358347
	09/21/2022			09/30/2022 18:48	McKinley C Carter	2358348
SM 2540 C-2011	09/21/2022			09/26/2022 15:56	Yijie Li	2358323, 2358325, 2358327, 2358329, 2358330
SM 2540 D-2011	09/21/2022			09/26/2022 15:56	Yijie Li	2358323, 2358325, 2358327, 2358329, 2358330
SM 4500-F- C-2011	09/21/2022			10/01/2022 13:48	Dale L. Simmons	2358323
	09/21/2022			10/01/2022 13:58	Dale L. Simmons	2358325
	09/21/2022			10/01/2022 14:08	Dale L. Simmons	2358327
	09/21/2022			10/01/2022 14:18	Dale L. Simmons	2358329
	09/21/2022			10/01/2022 14:27	Dale L. Simmons	2358330
SM 5310 B-2011	09/21/2022			09/24/2022 08:16	Khloe J Berg	2358324
	09/21/2022			09/24/2022 08:29	Khloe J Berg	2358326
	09/21/2022			09/24/2022 08:44	Khloe J Berg	2358328
	09/21/2022			09/24/2022 08:57	Khloe J Berg	2358331
	09/21/2022			09/24/2022 09:10	Khloe J Berg	2358332