

Chemical Analysis Report

NW-DIST-2022-04-06-01

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

Event Description: **Laurel Hill West**
Request ID: **RQ-2022-04-04-47**
Customer: **NW-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 21-APR-2022 15:44

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

Case Narrative

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

Results for the following analytical groups are included in this report: Metals 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: Trammel Creek above CRX train tracks

Collection Date/Time: 04/04/2022 12:00

Field ID: G4NW0383

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317005	EPA 200.7 Rev. 4.4	Calcium	6.40		mg/L	P412113	
		Iron	400		ug/L	P412113	
		Magnesium	1.29		mg/L	P412113	
		Potassium	1.5		mg/L	P412113	
		Sodium	4.7		mg/L	P412113	
		Strontium	28.2		ug/L	P412113	
		Tin	3.0	U	ug/L	P412113	
		Titanium	1.1	I	ug/L	P412113	
		Vanadium	2.0	U	ug/L	P412113	
		Zinc	5.0	U	ug/L	P412113	
	EPA 200.8 Rev. 5.4	Aluminum	96		ug/L	P412113	
		Antimony	0.050	U	ug/L	P412113	
		Arsenic	0.25		ug/L	P412113	
		Barium	14.1		ug/L	P412113	
		Beryllium	0.010	U	ug/L	P412113	
		Boron**	97.8		ug/L	P412113	
		Cadmium	0.020	U	ug/L	P412113	
		Chromium	0.40	U	ug/L	P412113	
		Cobalt	0.075	I	ug/L	P412113	
		Copper	0.40	U	ug/L	P412113	
		Lead	0.20	U	ug/L	P412113	
		Manganese	9.32		ug/L	P412113	
		Molybdenum	0.15	U	ug/L	P412113	
		Nickel	0.50	U	ug/L	P412113	
		Selenium	0.20	U	ug/L	P412113	
		Silver	0.010	U	ug/L	P412113	
		Thallium	0.10	U	ug/L	P412113	
	SM 2340 B-2011	Hardness	21.3		mg/L	P412113	

Sample Location: Williams Creek West Fork upstream of Antioch Rd **Collection Date/Time: 04/04/2022 12:15**

Field ID: G4NW0489

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317003	EPA 8321B	2,4-D	0.0020	U	ug/L	P412044	
		Acesulfame K	0.10	U	ug/L	P412075	
		2,4,5-T	0.0040	U	ug/L	P412044	
		AMPA	0.10	U	ug/L	P412075	
		Sucralose	18		ug/L	P412075	
		Acetaminophen	0.0080	U	ug/L	P412044	
		Acetamiprid	0.0058	I	ug/L	P412044	
		Endothall	0.25	U	ug/L	P412075	
		Glufosinate	0.10	U	ug/L	P412075	
		Glyphosate	0.10	U	ug/L	P412075	
		Afidopyropen	0.0020	U	ug/L	P412044	
		Bentazon	8.0E-04	U	ug/L	P412044	MS
		Benzovindiflupyr	0.0020	U	ug/L	P412044	
		Carbamazepine	0.013		ug/L	P412044	
		Clothianidin	0.0020	U	ug/L	P412044	MS
		Dinotefuran	0.012		ug/L	P412044	MS
		Diuron	0.0020	U	ug/L	P412044	
		Fenuron	0.016	U	ug/L	P412044	
		Fluridone	8.0E-04	U	ug/L	P412044	
		Imazapyr	0.0040	U	ug/L	P412044	
		Hydrocodone	0.0020	U	ug/L	P412044	
		Ibuprofen	0.020	U	ug/L	P412044	
		Imidacloprid	0.015		ug/L	P412044	MS
		Linuron	0.0040	U	ug/L	P412044	
		Mandestrobin	0.0020	U	ug/L	P412044	
		MCPP	0.0040	U	ug/L	P412044	
		Naproxen	0.0080	UJ	ug/L	P412044	CCV
		Primidone	0.020		ug/L	P412044	MS, RPD
		Pyraclostrobin	0.0020	U	ug/L	P412044	
		Silvex	0.0040	U	ug/L	P412044	
		Thiamethoxam	0.0020	U	ug/L	P412044	MS
		Tolfenpyrad	0.0020	U	ug/L	P412044	
		Triclopyr	0.0040	U	ug/L	P412044	

Ref. Method and Comment:

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Baggett Creek upstream of Hwy 90

Collection Date/Time: 04/04/2022 12:40

Field ID: G4NW0336

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317000	EPA 8270E	Aldrin	0.67	U	ng/L	P412107	
		Alpha-BHC	0.10	U	ng/L	P412107	
		Alpha-Chlordane	0.21	U	ng/L	P412107	
		PCB-1016	2.1	U	ng/L	P412107	
		Beta-BHC	0.10	U	ng/L	P412107	
		PCB-1221	2.1	U	ng/L	P412107	
		Beta-Cyfluthrin**	1.3	U	ng/L	P412107	
		PCB-1232	2.1	U	ng/L	P412107	
		Bifenthrin**	0.52	U	ng/L	P412107	
		PCB-1242	2.1	U	ng/L	P412107	
		Carbophenothion	0.93	U	ng/L	P412107	
		PCB-1248	2.1	U	ng/L	P412107	
		Chlorothalonil	1.3	UJ	ng/L	P412107	MS
		PCB-1254	2.1	U	ng/L	P412107	
		Cis-Nonachlor**	0.21	U	ng/L	P412107	
		PCB-1260	2.1	U	ng/L	P412107	
		Cypermethrin	1.6	U	ng/L	P412107	
		Dacthal**	0.16	U	ng/L	P412107	
		DDD-p,p'	0.26	U	ng/L	P412107	
		DDE-p,p'	0.21	U	ng/L	P412107	
		DDT-p,p'	0.26	U	ng/L	P412107	
		Delta-BHC	0.41	U	ng/L	P412107	
		Deltamethrin**	1.3	U	ng/L	P412107	
		Dichlobenil**	0.26	U	ng/L	P412107	
		Dicofol	1.3	U	ng/L	P412107	
		Dieldrin	0.41	U	ng/L	P412107	
		Endosulfan I	0.41	U	ng/L	P412107	
		Endosulfan II	0.41	U	ng/L	P412107	
		Endosulfan Sulfate	0.31	U	ng/L	P412107	
		Endrin	0.41	U	ng/L	P412107	
		Endrin Aldehyde	0.78	U	ng/L	P412107	
		Endrin Ketone	0.41	UJ	ng/L	P412107	RPD
		Esfenvalerate**	0.78	U	ng/L	P412107	
		Ethalfuralin**	0.16	U	ng/L	P412107	
		Fenpropathrin**	0.26	U	ng/L	P412107	
		Gamma-BHC	0.13	U	ng/L	P412107	
		Gamma-Chlordane	0.21	U	ng/L	P412107	
		Heptachlor	0.21	U	ng/L	P412107	
		Heptachlor Epoxide	0.26	U	ng/L	P412107	
		Hexachlorobenzene**	1.0	U	ng/L	P412107	
		Kepone**	5.2	U	ng/L	P412107	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P412107	
		Methoprene**	0.78	U	ng/L	P412107	
		Methoxychlor	0.31	U	ng/L	P412107	

Field ID: G4NW0336

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317000	EPA 8270E	MGK-264**	0.21	U	ng/L	P412107	
		Mirex	0.73	U	ng/L	P412107	
		Oxychlordane**	0.31	U	ng/L	P412107	
		Permethrin	1.7	U	ng/L	P412107	
		Phenothrin**	0.93	U	ng/L	P412107	
		Piperonyl Butoxide**	0.16	U	ng/L	P412107	
		Prallethrin**	2.1	U	ng/L	P412107	
		Tau-Fluvalinate**	0.26	U	ng/L	P412107	
		Tetramethrin**	0.78	U	ng/L	P412107	
		Trans-Nonachlor**	0.21	U	ng/L	P412107	
		Triclosan Methyl**	0.16	U	ng/L	P412107	
		Trifluralin	0.21	U	ng/L	P412107	
		Chlordane	2.6	U	ng/L	P412107	
2317001	EPA 8321B	Toxaphene	16	U	ng/L	P412107	
		2,4-D	0.0020	U	ug/L	P412044	
		Acesulfame K	0.10	U	ug/L	P412075	
		2,4,5-T	0.0040	U	ug/L	P412044	
		AMPA	0.10	U	ug/L	P412075	
		Sucralose	0.19		ug/L	P412075	
		Acetaminophen	0.0080	U	ug/L	P412044	
		Acetamiprid	0.0020	U	ug/L	P412044	
		Endothall	0.25	U	ug/L	P412075	
		Glufosinate	0.10	U	ug/L	P412075	
		Glyphosate	0.10	U	ug/L	P412075	
		Afidopyropen	0.0020	U	ug/L	P412044	
		Bentazon	0.0029	I	ug/L	P412044	MS
		Benzovindiflupyr	0.0020	U	ug/L	P412044	
		Carbamazepine	8.0E-04	U	ug/L	P412044	
		Clothianidin	0.0020	U	ug/L	P412044	MS
		Dinotefuran	0.0020	U	ug/L	P412044	MS
		Diuron	0.0020	U	ug/L	P412044	
		Fenuron	0.016	U	ug/L	P412044	
		Fluridone	8.0E-04	U	ug/L	P412044	
		Imazapyr	0.0040	U	ug/L	P412044	
		Hydrocodone	0.0020	U	ug/L	P412044	
		Ibuprofen	0.020	U	ug/L	P412044	
		Imidacloprid	0.0054	I	ug/L	P412044	MS
		Linuron	0.0040	U	ug/L	P412044	
		Mandestrobin	0.0020	U	ug/L	P412044	
		MCPP	0.0040	U	ug/L	P412044	
		Naproxen	0.0080	UJ	ug/L	P412044	CCV
		Primidone	0.0040	U	ug/L	P412044	MS, RPD
		Pyraclostrobin	0.0020	U	ug/L	P412044	
		Silvex	0.0040	U	ug/L	P412044	
		Thiamethoxam	0.0020	U	ug/L	P412044	MS

Field ID: G4NW0336

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317001	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P412044	
		Triclopyr	0.0040	U	ug/L	P412044	
2317004	EPA 200.7 Rev. 4.4	Calcium	2.17		mg/L	P412113	
		Iron	430		ug/L	P412113	
		Magnesium	1.30		mg/L	P412113	
		Potassium	0.49	I	mg/L	P412113	
		Sodium	2.5		mg/L	P412113	
		Strontium	11.1		ug/L	P412113	
		Tin	3.0	U	ug/L	P412113	
		Titanium	0.99	I	ug/L	P412113	
		Vanadium	2.0	U	ug/L	P412113	
		Zinc	5.0	U	ug/L	P412113	
	EPA 200.8 Rev. 5.4	Aluminum	66		ug/L	P412113	
		Antimony	0.050	U	ug/L	P412113	
		Arsenic	0.20		ug/L	P412113	
		Barium	22.5		ug/L	P412113	
		Beryllium	0.010	U	ug/L	P412113	
		Boron**	10.3		ug/L	P412113	
		Cadmium	0.020	U	ug/L	P412113	
		Chromium	0.40	U	ug/L	P412113	
		Cobalt	0.132		ug/L	P412113	
		Copper	0.40	U	ug/L	P412113	
		Lead	0.20	U	ug/L	P412113	
		Manganese	7.57		ug/L	P412113	
		Molybdenum	0.15	U	ug/L	P412113	
		Nickel	0.50	U	ug/L	P412113	
		Selenium	0.20	U	ug/L	P412113	
		Silver	0.010	U	ug/L	P412113	
		Thallium	0.10	U	ug/L	P412113	
	SM 2340 B-2011	Hardness	10.8		mg/L	P412113	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Wilkinson Creek upstream of Wilkinson Bluff Road

Collection Date/Time: 04/04/2022 12:55

Field ID: G4NW0357

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317002	EPA 8321B	2,4-D	0.0020	U	ug/L	P412044	
		Acesulfame K	0.10	U	ug/L	P412075	
		2,4,5-T	0.0040	U	ug/L	P412044	
		AMPA	0.10	U	ug/L	P412075	
		Sucralose	0.17		ug/L	P412075	
		Acetaminophen	0.0080	U	ug/L	P412044	
		Acetamiprid	0.0020	U	ug/L	P412044	
		Endothall	0.25	U	ug/L	P412075	
		Glufosinate	0.10	U	ug/L	P412075	
		Glyphosate	0.10	U	ug/L	P412075	
		Afidopyropen	0.0020	U	ug/L	P412044	
		Bentazon	8.0E-04	U	ug/L	P412044	MS
		Benzovindiflupyr	0.0020	U	ug/L	P412044	
		Carbamazepine	8.0E-04	U	ug/L	P412044	
		Clothianidin	0.0020	U	ug/L	P412044	MS
		Dinotefuran	0.0020	U	ug/L	P412044	MS
		Diuron	0.0020	U	ug/L	P412044	
		Fenuron	0.016	U	ug/L	P412044	
		Fluridone	8.0E-04	U	ug/L	P412044	
		Imazapyr	0.0051	I	ug/L	P412044	
		Hydrocodone	0.0020	U	ug/L	P412044	
		Ibuprofen	0.020	U	ug/L	P412044	
		Imidacloprid	0.0062	I	ug/L	P412044	MS
		Linuron	0.0040	U	ug/L	P412044	
		Mandestrobin	0.0020	U	ug/L	P412044	
		MCPP	0.0040	U	ug/L	P412044	
		Naproxen	0.0080	UJ	ug/L	P412044	CCV
		Primidone	0.0040	U	ug/L	P412044	MS, RPD
		Pyraclostrobin	0.0020	U	ug/L	P412044	
		Silvex	0.0040	U	ug/L	P412044	
		Thiamethoxam	0.0020	U	ug/L	P412044	MS
		Tolfenpyrad	0.0020	U	ug/L	P412044	
		Triclopyr	0.0040	U	ug/L	P412044	

Ref. Method and Comment:

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P412113

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412113

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 8270E

Batch ID: P412107

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
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	1.2	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P412107

Component	Result	Code	Units
Chlorothalonil	1.2	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P412107

Component	Result	Code	Units
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P412107

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8276

Batch ID: P412107

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

Reference Method: EPA 8321B

Batch ID: P412044

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P412075

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 Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P412113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	80 - 120
Iron	106		P	80 - 120
Magnesium	101		P	80 - 120
Potassium	104		P	80 - 120
Sodium	109		P	80 - 120
Strontium	101		P	80 - 120
Tin	103		P	80 - 120
Titanium	104		P	80 - 120
Vanadium	96.7		P	80 - 120
Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	99.5		P	85 - 115
Arsenic	101		P	85 - 115
Barium	104		P	85 - 115
Beryllium	91.6		P	85 - 115
Boron	105		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	97.4		P	85 - 115
Cobalt	99.3		P	85 - 115
Copper	97.7		P	85 - 115
Lead	94.5		P	85 - 115
Manganese	99.4		P	85 - 115
Molybdenum	99.9		P	85 - 115
Nickel	98.8		P	85 - 115
Selenium	100		P	85 - 115
Silver	98.1		P	85 - 115
Thallium	96.3		P	85 - 115

Reference Method: EPA 8270E

Batch ID: P412107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	51.1		P	10 - 93.0
Alpha-BHC	96.2		P	75 - 106
Alpha-Chlordane	77.8		P	50 - 109
Beta-BHC	119		P	36 - 138
Beta-Cyfluthrin	68.0		P	23 - 167
Bifenthrin	49.2		P	11 - 123
Carbophenothion	49.1		P	18 - 96.0
Chlorothalonil	101		P	27 - 190
Cis-Nonachlor	69.5		P	40 - 111
Cypermethrin	65.6		P	25 - 155
Dacthal	94.4		P	72 - 119
DDD-p,p'	76.3		P	47 - 108
DDE-p,p'	76.9		P	48 - 107
DDT-p,p'	76.4		P	49 - 111
Delta-BHC	129		P	54 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P412107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Deltamethrin	78.6		P	22 - 189
Dichlobenil	97.7		P	32 - 113
Dicofol	73.6		P	50 - 108
Dieldrin	81.5		P	56 - 110
Endosulfan I	86.5		P	60 - 105
Endosulfan II	82.4		P	50 - 120
Endosulfan Sulfate	84.2		P	55 - 121
Endrin	78.9		P	31 - 119
Endrin Aldehyde	94.7		P	36 - 116
Endrin Ketone	94.1		P	69 - 177
Esfenvalerate	68.4		P	10 - 179
Ethalfuralin	77.8		P	49 - 99.0
Fenpropathrin	69.6		P	35 - 119
Gamma-BHC	102		P	69 - 120
Gamma-Chlordane	75.3		P	45 - 107
Heptachlor	69.5		P	41 - 100
Heptachlor Epoxide	86.4		P	58 - 106
Hexachlorobenzene	79.0		P	39 - 100
Kepone	164		P	10 - 191
Lambda-Cyhalothrin	56.9		P	21 - 206
Methoprene	53.5		P	10 - 129
Methoxychlor	89.5		P	61 - 111
MGK-264	83.1		P	20 - 123
Mirex	52.5		P	10 - 182
Oxychlordane	77.7		P	39 - 110
PCB-1016	82.0		P	49 - 111
PCB-1260	92.4		P	42 - 116
Permethrin	72.8		P	26 - 152
Phenothrin	41.5		P	10 - 109
Piperonyl Butoxide	113		P	19 - 147
Prallethrin	72.1		P	14 - 109
Tau-Fluvalinate	56.6		P	16 - 134
Tetramethrin	96.6		P	10 - 125
Trans-Nonachlor	78.2		P	45 - 107
Triclosan Methyl	83.9		P	60 - 110
Trifluralin	77.8		P	44 - 101

Reference Method: EPA 8276

Batch ID: P412107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	97.7		P	61 - 118
Toxaphene	119		P	51 - 122

Reference Method: EPA 8321B

Batch ID: P412044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	79.6		P	40 - 150
2,4,5-T	76.5		P	40 - 150
Acetaminophen	67.3		P	30 - 150
Acetamiprid	93.2		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P412044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Afidopyropen	74.6		P	40 - 150
Bentazon	147		P	30 - 150
Benzovindiflupyr	110		P	40 - 150
Carbamazepine	104		P	40 - 150
Clothianidin	139		P	40 - 150
Dinotefuran	118		P	40 - 150
Diuron	94.9		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	111		P	40 - 150
Ibuprofen	67.3		P	40 - 150
Imazapyr	101		P	40 - 150
Imidacloprid	112		P	40 - 150
Linuron	84.4		P	40 - 150
Mandestrobin	105		P	40 - 150
MCPP	94.0		P	40 - 150
Naproxen	96.4		P	40 - 150
Primidone	100		P	40 - 150
Pyraclostrobin	98.1		P	40 - 150
Silvex	52.4		P	40 - 150
Thiamethoxam	111		P	40 - 150
Tolfenpyrad	50.3		P	30 - 150
Triclopyr	66.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P412075

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	131		P	40 - 150
Endothall	75.7		P	40 - 150
Glufosinate	122		P	40 - 150
Glyphosate	130		P	40 - 150
Sucralose	114		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P412113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315168	Calcium	101		P	80 - 120
2315168	Iron	103	104	P/P	80 - 120
2315168	Magnesium	101		P	80 - 120
2315168	Potassium	103	105	P/P	80 - 120
2315168	Sodium	108	106	P/P	80 - 120
2315168	Strontium	102	101	P/P	80 - 120
2315168	Tin	98.1	98.0	P/P	80 - 120
2315168	Titanium	100	102	P/P	80 - 120
2315168	Vanadium	95.4	97.1	P/P	80 - 120
2315168	Zinc	95.0	96.7	P/P	80 - 120
2317004	Calcium	101		P	80 - 120
2317004	Iron	102		P	80 - 120
2317004	Magnesium	102		P	80 - 120
2317004	Potassium	103		P	80 - 120
2317004	Sodium	102		P	80 - 120
2317004	Strontium	101		P	80 - 120
2317004	Tin	102		P	80 - 120
2317004	Titanium	101		P	80 - 120
2317004	Vanadium	95.6		P	80 - 120
2317004	Zinc	99.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315168	Aluminum	99.8	101	P/P	80 - 120
2315168	Antimony	100	101	P/P	80 - 120
2315168	Arsenic	99.0	102	P/P	80 - 120
2315168	Barium	101	103	P/P	80 - 120
2315168	Beryllium	91.7	93.7	P/P	80 - 120
2315168	Boron	105	106	P/P	80 - 120
2315168	Cadmium	99.4	100	P/P	80 - 120
2315168	Chromium	98.1	102	P/P	80 - 120
2315168	Cobalt	96.0	98.5	P/P	80 - 120
2315168	Copper	91.4	93.6	P/P	80 - 120
2315168	Lead	92.6	94.0	P/P	80 - 120
2315168	Manganese	98.0	102	P/P	80 - 120
2315168	Molybdenum	101	104	P/P	80 - 120
2315168	Nickel	94.8	97.1	P/P	80 - 120
2315168	Selenium	96.7	99.4	P/P	80 - 120
2315168	Silver	96.2	97.0	P/P	80 - 120
2315168	Thallium	96.9	99.0	P/P	80 - 120
2317004	Aluminum	102		P	80 - 120
2317004	Antimony	97.6		P	80 - 120
2317004	Arsenic	97.1		P	80 - 120
2317004	Barium	101		P	80 - 120
2317004	Beryllium	86.7		P	80 - 120
2317004	Boron	108		P	80 - 120
2317004	Cadmium	97.3		P	80 - 120
2317004	Chromium	95.9		P	80 - 120
2317004	Cobalt	96.0		P	80 - 120
2317004	Copper	96.3		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317004	Lead	93.6		P	80 - 120
2317004	Manganese	99.2		P	80 - 120
2317004	Molybdenum	97.0		P	80 - 120
2317004	Nickel	96.0		P	80 - 120
2317004	Selenium	92.3		P	80 - 120
2317004	Silver	96.5		P	80 - 120
2317004	Thallium	95.3		P	80 - 120

Reference Method: EPA 8270E

Batch ID: P412107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316990	PCB-1016	70.8	87.9	P/P	46 - 110
2316990	PCB-1260	82.8	83.4	P/P	42 - 111
2317000	Aldrin	49.5	55.8	P/P	10 - 89.0
2317000	Alpha-BHC	90.7	85.3	P/P	71 - 105
2317000	Alpha-Chlordane	62.7	63.2	P/P	43 - 107
2317000	Beta-BHC	122	113	P/P	57 - 152
2317000	Beta-Cyfluthrin	72.5	72.1	P/P	29 - 186
2317000	Bifenthrin	63.2	62.5	P/P	19 - 119
2317000	Carbophenothion	49.8	48.5	P/P	19 - 107
2317000	Chlorothalonil	328	302	F/F	10 - 245
2317000	Cis-Nonachlor	51.1	54.3	P/P	36 - 110
2317000	Cypermethrin	71.1	72.5	P/P	24 - 169
2317000	Dacthal	78.7	77.6	P/P	62 - 115
2317000	DDD-p,p'	57.1	56.8	P/P	36 - 109
2317000	DDE-p,p'	57.0	56.7	P/P	30 - 114
2317000	DDT-p,p'	67.1	71.0	P/P	42 - 108
2317000	Delta-BHC	136	130	P/P	60 - 164
2317000	Deltamethrin	94.9	95.2	P/P	10 - 210
2317000	Dichlobenil	69.1	63.1	P/P	23 - 108
2317000	Dicofol	64.6	66.6	P/P	44 - 109
2317000	Dieldrin	62.2	59.6	P/P	37 - 119
2317000	Endosulfan I	67.7	68.5	P/P	52 - 105
2317000	Endosulfan II	58.9	58.3	P/P	35 - 127
2317000	Endosulfan Sulfate	65.7	62.0	P/P	39 - 130
2317000	Endrin	59.5	59.5	P/P	30 - 116
2317000	Endrin Aldehyde	78.3	57.7	P/P	20 - 110
2317000	Endrin Ketone	84.1	122	P/P	48 - 134
2317000	Esfenvalerate	85.3	84.9	P/P	10 - 199
2317000	Ethalfuralin	53.7	56.7	P/P	48 - 95.0
2317000	Fenpropathrin	64.4	66.7	P/P	37 - 121
2317000	Gamma-BHC	89.1	82.5	P/P	61 - 126
2317000	Gamma-Chlordane	65.8	67.7	P/P	39 - 105
2317000	Heptachlor	58.9	64.3	P/P	38 - 96.0
2317000	Heptachlor Epoxide	82.7	85.0	P/P	42 - 114
2317000	Hexachlorobenzene	66.7	69.3	P/P	39 - 93.0
2317000	Kepone	152	146	P/P	10 - 215
2317000	Lambda-Cyhalothrin	74.9	76.0	P/P	10 - 204
2317000	Methoprene	68.0	66.6	P/P	17 - 108
2317000	Methoxychlor	83.8	86.0	P/P	56 - 115
2317000	MGK-264	73.6	72.7	P/P	35 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P412107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317000	Mirex	49.9	50.9	P/P	10 - 178
2317000	Oxychlordane	64.4	71.2	P/P	47 - 91.0
2317000	Permethrin	74.3	76.1	P/P	27 - 170
2317000	Phenothrin	63.1	63.3	P/P	10 - 133
2317000	Piperonyl Butoxide	99.9	93.8	P/P	23 - 150
2317000	Prallethrin	66.4	64.8	P/P	21 - 113
2317000	Tau-Fluvalinate	73.8	75.2	P/P	16 - 158
2317000	Tetramethrin	102	95.7	P/P	22 - 132
2317000	Trans-Nonachlor	61.6	62.7	P/P	43 - 102
2317000	Triclosan Methyl	61.5	59.3	P/P	49 - 109
2317000	Trifluralin	65.2	71.2	P/P	48 - 93.0

Reference Method: EPA 8276

Batch ID: P412107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316990	Chlordane	72.1	74.9	P/P	55 - 128
2316990	Toxaphene	87.1	93.0	P/P	57 - 211

Reference Method: EPA 8321B

Batch ID: P412044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316353	2,4-D	101	84.0	P/P	40 - 150
2316353	2,4,5-T	89.2	84.2	P/P	40 - 150
2316353	Acetaminophen	116	111	P/P	30 - 150
2316353	Acetamiprid	111	105	P/P	40 - 150
2316353	Afidopyropen	88.4	68.8	P/P	40 - 150
2316353	Bentazon	154	133	F/P	30 - 150
2316353	Benzovindiflupyr	122	110	P/P	40 - 150
2316353	Carbamazepine	108	110	P/P	40 - 150
2316353	Clothianidin	199	193	F/F	40 - 150
2316353	Dinotefuran	161	155	F/F	40 - 150
2316353	Diuron	89.9	75.0	P/P	40 - 150
2316353	Fenuron	142	135	P/P	40 - 150
2316353	Fluridone	105	105	P/P	40 - 150
2316353	Hydrocodone	140	123	P/P	40 - 150
2316353	Ibuprofen	53.2	44.8	P/P	40 - 150
2316353	Imidacloprid	145	174	P/F	40 - 150
2316353	Linuron	89.0	70.1	P/P	40 - 150
2316353	Mandestrobin	113	104	P/P	40 - 150
2316353	MCPP	106	113	P/P	40 - 150
2316353	Naproxen	103	127	P/P	40 - 150
2316353	Primidone	160	95.3	F/P	40 - 150
2316353	Pyraclostrobin	104	101	P/P	40 - 150
2316353	Silvex	67.4	79.1	P/P	40 - 150
2316353	Thiamethoxam	182	180	F/F	40 - 150
2316353	Tolfenpyrad	44.0	59.1	P/P	30 - 150
2316353	Triclopyr	74.0	78.3	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P412075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316438	Acesulfame K	111	116	P/P	40 - 150
2316438	AMPA	110	104	P/P	40 - 150
2316438	Endothall	74.5	72.1	P/P	40 - 150
2316438	Glufosinate	94.3	87.1	P/P	40 - 150
2316438	Glyphosate	106	103	P/P	40 - 150
2316438	Sucralose	86.4	88.7	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P412113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315168	Calcium	0.249	Spike	P	0 - 20
2315168	Iron	1.58	Spike	P	0 - 20
2315168	Magnesium	1.80	Spike	P	0 - 20
2315168	Potassium	1.41	Spike	P	0 - 20
2315168	Sodium	0.714	Spike	P	0 - 20
2315168	Strontium	0.630	Spike	P	0 - 20
2315168	Tin	0.0584	Spike	P	0 - 20
2315168	Titanium	1.56	Spike	P	0 - 20
2315168	Vanadium	1.85	Spike	P	0 - 20
2315168	Zinc	0.962	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315168	Aluminum	1.38	Spike	P	0 - 20
2315168	Antimony	1.22	Spike	P	0 - 20
2315168	Arsenic	2.97	Spike	P	0 - 20
2315168	Barium	1.52	Spike	P	0 - 20
2315168	Beryllium	2.22	Spike	P	0 - 20
2315168	Boron	1.44	Spike	P	0 - 20
2315168	Cadmium	0.916	Spike	P	0 - 20
2315168	Chromium	4.17	Spike	P	0 - 20
2315168	Cobalt	2.51	Spike	P	0 - 20
2315168	Copper	2.00	Spike	P	0 - 20
2315168	Lead	1.40	Spike	P	0 - 20
2315168	Manganese	2.40	Spike	P	0 - 20
2315168	Molybdenum	2.30	Spike	P	0 - 20
2315168	Nickel	2.38	Spike	P	0 - 20
2315168	Selenium	2.74	Spike	P	0 - 20
2315168	Silver	0.766	Spike	P	0 - 20
2315168	Thallium	2.10	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P412107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316990	PCB-1016	21.6	Spike	P	0 - 32
2316990	PCB-1260	0.734	Spike	P	0 - 31
2317000	Aldrin	11.9	Spike	P	0 - 37
2317000	Alpha-BHC	6.20	Spike	P	0 - 16
2317000	Alpha-Chlordane	0.765	Spike	P	0 - 28
2317000	Beta-BHC	7.58	Spike	P	0 - 32
2317000	Beta-Cyfluthrin	0.462	Spike	P	0 - 41
2317000	Bifenthrin	1.09	Spike	P	0 - 36
2317000	Carbophenothion	2.53	Spike	P	0 - 81
2317000	Chlorothalonil	8.09	Spike	P	0 - 54
2317000	Cis-Nonachlor	6.16	Spike	P	0 - 33
2317000	Cypermethrin	1.95	Spike	P	0 - 38

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P412107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317000	Dacthal	1.44	Spike	P	0 - 23
2317000	DDD-p,p'	0.634	Spike	P	0 - 35
2317000	DDE-p,p'	0.454	Spike	P	0 - 27
2317000	DDT-p,p'	5.61	Spike	P	0 - 31
2317000	Delta-BHC	4.85	Spike	P	0 - 30
2317000	Deltamethrin	0.293	Spike	P	0 - 76
2317000	Dichlobenil	9.09	Spike	P	0 - 33
2317000	Dicofol	3.04	Spike	P	0 - 24
2317000	Dieldrin	4.27	Spike	P	0 - 35
2317000	Endosulfan I	1.20	Spike	P	0 - 25
2317000	Endosulfan II	0.941	Spike	P	0 - 31
2317000	Endosulfan Sulfate	5.88	Spike	P	0 - 38
2317000	Endrin	0.0125	Spike	P	0 - 53
2317000	Endrin Aldehyde	30.3	Spike	P	0 - 81
2317000	Endrin Ketone	36.9	Spike	F	0 - 33
2317000	Esfenvalerate	0.433	Spike	P	0 - 46
2317000	Ethalfuralin	5.46	Spike	P	0 - 22
2317000	Fenpropathrin	3.54	Spike	P	0 - 29
2317000	Gamma-BHC	7.69	Spike	P	0 - 17
2317000	Gamma-Chlordane	2.94	Spike	P	0 - 28
2317000	Heptachlor	8.82	Spike	P	0 - 28
2317000	Heptachlor Epoxide	2.74	Spike	P	0 - 23
2317000	Hexachlorobenzene	3.79	Spike	P	0 - 22
2317000	Kepone	4.56	Spike	P	0 - 61
2317000	Lambda-Cyhalothrin	1.49	Spike	P	0 - 52
2317000	Methoprene	2.11	Spike	P	0 - 38
2317000	Methoxychlor	2.50	Spike	P	0 - 29
2317000	MGK-264	1.20	Spike	P	0 - 41
2317000	Mirex	2.03	Spike	P	0 - 39
2317000	Oxychlordane	10.0	Spike	P	0 - 33
2317000	Permethrin	2.33	Spike	P	0 - 39
2317000	Phenothrin	0.443	Spike	P	0 - 52
2317000	Piperonyl Butoxide	6.36	Spike	P	0 - 91
2317000	Prallethrin	2.48	Spike	P	0 - 34
2317000	Tau-Fluvalinate	1.91	Spike	P	0 - 41
2317000	Tetramethrin	6.21	Spike	P	0 - 43
2317000	Trans-Nonachlor	1.81	Spike	P	0 - 31
2317000	Triclosan Methyl	3.66	Spike	P	0 - 24
2317000	Trifluralin	8.91	Spike	P	0 - 23

Reference Method: EPA 8276
Batch ID: P412107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316990	Chlordane	3.80	Spike	P	0 - 25
2316990	Toxaphene	6.54	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P412044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316353	2,4-D	18.2	Spike	P	0 - 30
2316353	2,4,5-T	5.78	Spike	P	0 - 30
2316353	Acetaminophen	4.02	Spike	P	0 - 30
2316353	Acetamiprid	5.78	Spike	P	0 - 30
2316353	Afidopyropen	25.0	Spike	P	0 - 30
2316353	Bentazon	9.06	Spike	P	0 - 30
2316353	Benzovindiflupyr	9.81	Spike	P	0 - 30
2316353	Carbamazepine	2.51	Spike	P	0 - 30
2316353	Clothianidin	3.07	Spike	P	0 - 30
2316353	Dinotefuran	3.02	Spike	P	0 - 30
2316353	Diuron	18.1	Spike	P	0 - 30
2316353	Fenuron	5.25	Spike	P	0 - 30
2316353	Fluridone	0.486	Spike	P	0 - 30
2316353	Hydrocodone	13.3	Spike	P	0 - 30
2316353	Ibuprofen	17.1	Spike	P	0 - 30
2316353	Imazapyr	6.11	Spike	P	0 - 30
2316353	Imidacloprid	18.1	Spike	P	0 - 30
2316353	Linuron	23.8	Spike	P	0 - 30
2316353	Mandestrobin	8.25	Spike	P	0 - 30
2316353	MCPP	7.05	Spike	P	0 - 30
2316353	Naproxen	21.2	Spike	P	0 - 30
2316353	Primidone	50.5	Spike	F	0 - 30
2316353	Pyraclostrobin	2.65	Spike	P	0 - 30
2316353	Silvex	16.0	Spike	P	0 - 30
2316353	Thiamethoxam	1.41	Spike	P	0 - 30
2316353	Tolfenpyrad	29.2	Spike	P	0 - 30
2316353	Triclopyr	5.64	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P412075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316438	Acesulfame K	4.66	Spike	P	0 - 30
2316438	AMPA	5.71	Spike	P	0 - 30
2316438	Endothall	3.27	Spike	P	0 - 30
2316438	Glufosinate	8.01	Spike	P	0 - 30
2316438	Glyphosate	3.11	Spike	P	0 - 30
2316438	Sucralose	2.62	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2317000

Field Sample ID: G4NW0336

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	64.8	P	38 - 115
EPA 8270E	Decachlorobiphenyl	76.2	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	59.1	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	73.5	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	76.4	P	30 - 97.0
EPA 8276	PCNB	71.9	P	45 - 119

Lab Sample ID: 2317001

Field Sample ID: G4NW0336

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	71.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	122	P	30 - 160
EPA 8321B	Diuron-d6	89.7	P	30 - 160
EPA 8321B	Endothall-d6	75.5	P	30 - 160
EPA 8321B	Endothall-d6	75.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.2	P	30 - 160
EPA 8321B	Primidone-d5	152	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160

Lab Sample ID: 2317002

Field Sample ID: G4NW0357

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	76.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	65.8	P	30 - 160
EPA 8321B	Endothall-d6	74.9	P	30 - 160
EPA 8321B	Endothall-d6	74.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.9	P	30 - 160
EPA 8321B	Primidone-d5	78.8	P	30 - 160
EPA 8321B	Sucralose-d6	96.9	P	30 - 160
EPA 8321B	Sucralose-d6	96.9	P	30 - 160

Lab Sample ID: 2317003

Field Sample ID: G4NW0489

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	106	P	30 - 160
EPA 8321B	Diuron-d6	68.5	P	30 - 160
EPA 8321B	Endothall-d6	75.7	P	30 - 160
EPA 8321B	Endothall-d6	75.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.5	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2317003

Field Sample ID: G4NW0489

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	80.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	46.0	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A111413

Included Lab Sample IDs: 2317001, 2317002, 2317003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	149	116	P/P	60 - 160
Glufosinate	114	128	P/P	60 - 160
Glyphosate	129	126	P/P	60 - 160

Reference Method: EPA 8276

Run ID: A111417

Included Lab Sample IDs: 2317000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.1		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 8321B

Run ID: A111419

Included Lab Sample IDs: 2317001, 2317002, 2317003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	83.0	82.4	P/P	60 - 160
Endothall	78.3	68.1	P/P	60 - 160
Sucralose	88.8	91.6	P/P	60 - 160
Sucralose	91.3	90.6	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111423

Included Lab Sample IDs: 2317004, 2317005

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	104	P/P	90 - 110
Antimony	101	102	P/P	90 - 110
Arsenic	102	101	P/P	90 - 110
Barium	99.7	98.9	P/P	90 - 110
Beryllium	95.4	93.6	P/P	90 - 110
Boron	103	105	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Chromium	99.3	99.4	P/P	90 - 110
Cobalt	98.6	98.6	P/P	90 - 110
Copper	98.3	98.2	P/P	90 - 110
Lead	94.0	93.8	P/P	90 - 110
Manganese	100	101	P/P	90 - 110
Molybdenum	100	99.1	P/P	90 - 110
Nickel	98.9	99.3	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Thallium	94.2	92.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111428

Included Lab Sample IDs: 2317001, 2317002, 2317003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.0	86.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A111428

Included Lab Sample IDs: 2317001, 2317002, 2317003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	96.0	99.0	P/P	50 - 150
Acetaminophen	102	110	P/P	60 - 160
Acetamiprid	104	102	P/P	50 - 150
Afidopyropen	99.4	102	P/P	50 - 150
Bentazon	103	115	P/P	50 - 160
Benzovindiflupyr	111	110	P/P	50 - 150
Carbamazepine	109	90.9	P/P	60 - 150
Clothianidin	121	135	P/P	60 - 150
Dinotefuran	99.9	95.2	P/P	50 - 150
Diuron	104	116	P/P	60 - 160
Fenuron	87.9	98.7	P/P	60 - 150
Fluridone	101	81.5	P/P	60 - 160
Hydrocodone	107	96.8	P/P	60 - 150
Ibuprofen	85.7	134	P/P	50 - 160
Imazapyr	93.0	100	P/P	50 - 150
Imidacloprid	78.2	100	P/P	60 - 150
Linuron	80.1	91.4	P/P	60 - 150
Mandestrobin	99.6	101	P/P	50 - 150
MCPP	88.7	83.3	P/P	50 - 150
Naproxen	99.2	174*	P/F	50 - 160
Primidone	136	86.5	P/P	60 - 150
Pyraclostrobin	105	96.9	P/P	60 - 150
Silvex	84.1	86.1	P/P	50 - 150
Thiamethoxam	102	88.6	P/P	50 - 150
Tolfenpyrad	110	94.9	P/P	60 - 150
Triclopyr	104	101	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A111460

Included Lab Sample IDs: 2317000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	106		P	80 - 120
PCB-1260	101		P	80 - 120

Reference Method: EPA 8270E

Run ID: A111493

Included Lab Sample IDs: 2317000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	99.2		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	97.6		P	80 - 120
Beta-Cyfluthrin	92.5		P	80 - 120
Bifenthrin	95.6		P	80 - 120
Carbophenothion	93.2		P	80 - 120
Chlorothalonil	98.7		P	80 - 120
Cis-Nonachlor	91.7		P	80 - 120
Cypermethrin	109		P	80 - 120
Dacthal	97.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111493
Included Lab Sample IDs: 2317000

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDD-p,p'	95.8		P	80 - 120
DDE-p,p'	99.0		P	80 - 120
DDT-p,p'	99.5		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	91.3		P	80 - 120
Dichlobenil	88.3		P	80 - 120
Dicofol	94.8		P	80 - 120
Dieldrin	94.2		P	80 - 120
Endosulfan I	89.2		P	80 - 120
Endosulfan II	93.7		P	80 - 120
Endosulfan Sulfate	84.1		P	80 - 120
Endrin	96.6		P	80 - 120
Endrin Aldehyde	91.2		P	80 - 120
Endrin Ketone	88.1		P	80 - 120
Esfenvalerate	93.9		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	92.6		P	80 - 120
Gamma-BHC	97.3		P	80 - 120
Gamma-Chlordane	98.4		P	80 - 120
Heptachlor	98.3		P	80 - 120
Heptachlor Epoxide	96.1		P	80 - 120
Hexachlorobenzene	99.2		P	80 - 120
Kepone	87.0		P	80 - 120
Lambda-Cyhalothrin	92.7		P	80 - 120
Methoprene	95.6		P	80 - 120
Methoxychlor	96.9		P	80 - 120
MGK-264	93.5		P	80 - 120
Mirex	97.3		P	80 - 120
Oxychlordane	99.1		P	80 - 120
Permethrin	99.6		P	80 - 120
Phenothrin	92.3		P	80 - 120
Piperonyl Butoxide	95.2		P	80 - 120
Prallethrin	92.7		P	80 - 120
Tau-Fluvalinate	92.6		P	80 - 120
Tetramethrin	91.6		P	80 - 120
Trans-Nonachlor	94.7		P	80 - 120
Triclosan Methyl	95.2		P	80 - 120
Trifluralin	98.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A111510
Included Lab Sample IDs: 2317004, 2317005

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	101	103	P/P	90 - 110
Potassium	104	106	P/P	90 - 110
Sodium	102	104	P/P	90 - 110
Strontium	101	98.6	P/P	90 - 110
Tin	99.3	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111510

Included Lab Sample IDs: 2317004, 2317005

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Titanium	98.0	98.3	P/P	90 - 110
Vanadium	100	99.3	P/P	90 - 110
Zinc	99.3	100	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 200.7 Rev. 4.4	Calcium	103	101	101				0.249
	Iron	106	103	104	102			1.58
	Magnesium	101	101	102				1.80
	Potassium	104	103	105	103			1.41
	Sodium	109	108	106	102			0.714
	Strontium	101	102	101	101			0.630
	Tin	103	98.1	98.0	102			0.0584
	Titanium	104	100	102	101			1.56
	Vanadium	96.7	95.4	97.1	95.6			1.85
	Zinc	102	95.0	96.7	99.9			0.962
EPA 200.8 Rev. 5.4	Aluminum	103	99.8	101	102			1.38
	Antimony	99.5	100	101	97.6			1.22
	Arsenic	101	99.0	102	97.1			2.97
	Barium	104	101	103	101			1.52
	Beryllium	91.6	91.7	93.7	86.7			2.22
	Boron	105	105	106	108			1.44
	Cadmium	98.6	99.4	100	97.3			0.916
	Chromium	97.4	98.1	102	95.9			4.17
	Cobalt	99.3	96.0	98.5	96.0			2.51
	Copper	97.7	91.4	93.6	96.3			2.00
	Lead	94.5	92.6	94.0	93.6			1.40
	Manganese	99.4	98.0	102	99.2			2.40
	Molybdenum	99.9	101	104	97.0			2.30
	Nickel	98.8	94.8	97.1	96.0			2.38
	Selenium	100	96.7	99.4	92.3			2.74
	Silver	98.1	96.2	97.0	96.5			0.766
	Thallium	96.3	96.9	99.0	95.3			2.10
EPA 8270E	Aldrin	51.1	49.5	55.8				11.9
	Alpha-BHC	96.2	90.7	85.3				6.20
	Alpha-Chlordane	77.8	62.7	63.2				0.765
	Beta-BHC	119	122	113				7.58
	Beta-Cyfluthrin	68.0	72.5	72.1				0.462
	Bifenthrin	49.2	63.2	62.5				1.09
	Carbophenothion	49.1	49.8	48.5				2.53
	Chlorothalonil	101	328	302				8.09
	Cis-Nonachlor	69.5	51.1	54.3				6.16
	Cypermethrin	65.6	71.1	72.5				1.95
	Dacthal	94.4	78.7	77.6				1.44
	DDD-p,p'	76.3	57.1	56.8				0.634
	DDE-p,p'	76.9	57.0	56.7				0.454
	DDT-p,p'	76.4	67.1	71.0				5.61
	Delta-BHC	129	136	130				4.85
	Deltamethrin	78.6	94.9	95.2				0.293
	Dichlobenil	97.7	69.1	63.1				9.09
	Dicofol	73.6	64.6	66.6				3.04
	Dieldrin	81.5	62.2	59.6				4.27
	Endosulfan I	86.5	67.7	68.5				1.20
	Endosulfan II	82.4	58.9	58.3				0.941
	Endosulfan Sulfate	84.2	65.7	62.0				5.88
	Endrin	78.9	59.5	59.5				0.0125
	Endrin Aldehyde	94.7	78.3	57.7				30.3
	Endrin Ketone	94.1	84.1	122				36.9
	Esfenvalerate	68.4	85.3	84.9				0.433
	Ethalfuralin	77.8	53.7	56.7				5.46

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Fenpropathrin	69.6	64.4	66.7		3.54
	Gamma-BHC	102	89.1	82.5		7.69
	Gamma-Chlordane	75.3	65.8	67.7		2.94
	Heptachlor	69.5	58.9	64.3		8.82
	Heptachlor Epoxide	86.4	82.7	85.0		2.74
	Hexachlorobenzene	79.0	66.7	69.3		3.79
	Kepone	164	152	146		4.56
	Lambda-Cyhalothrin	56.9	74.9	76.0		1.49
	Methoprene	53.5	68.0	66.6		2.11
	Methoxychlor	89.5	83.8	86.0		2.50
	MGK-264	83.1	73.6	72.7		1.20
	Mirex	52.5	49.9	50.9		2.03
	Oxychlordane	77.7	64.4	71.2		10.0
	PCB-1016	82.0	70.8	87.9		21.6
	PCB-1260	92.4	82.8	83.4		0.734
	Permethrin	72.8	74.3	76.1		2.33
	Phenothrin	41.5	63.1	63.3		0.443
	Piperonyl Butoxide	113	99.9	93.8		6.36
	Prallethrin	72.1	66.4	64.8		2.48
	Tau-Fluvalinate	56.6	73.8	75.2		1.91
	Tetramethrin	96.6	102	95.7		6.21
	Trans-Nonachlor	78.2	61.6	62.7		1.81
	Triclosan Methyl	83.9	61.5	59.3		3.66
	Trifluralin	77.8	65.2	71.2		8.91
EPA 8276	Chlordane	97.7	72.1	74.9		3.80
	Toxaphene	119	87.1	93.0		6.54
EPA 8321B	2,4-D	79.6	101	84.0		18.2
	2,4,5-T	76.5	89.2	84.2		5.78
	Acesulfame K	108	111	116		4.66
	Acetaminophen	67.3	116	111		4.02
	Acetamiprid	93.2	111	105		5.78
	Afidopyropen	74.6	88.4	68.8		25.0
	AMPA	131	110	104		5.71
	Bentazon	147	154	133		9.06
	Benzovindiflupyr	110	122	110		9.81
	Carbamazepine	104	108	110		2.51
	Clothianidin	139	199	193		3.07
	Dinotefuran	118	161	155		3.02
	Diuron	94.9	89.9	75.0		18.1
	Endothall	75.7	74.5	72.1		3.27
	Fenuron	112	142	135		5.25
	Fluridone	103	105	105		0.486
	Glufosinate	122	94.3	87.1		8.01
	Glyphosate	130	106	103		3.11
	Hydrocodone	111	140	123		13.3
	Ibuprofen	67.3	53.2	44.8		17.1
	Imazapyr	101				6.11
	Imidacloprid	112	145	174		18.1
	Linuron	84.4	89.0	70.1		23.8
	Mandestrobin	105	113	104		8.25
	MCPP	94.0	106	113		7.05
	Naproxen	96.4	103	127		21.2
	Primidone	100	160	95.3		50.5
	Pyraclostrobin	98.1	104	101		2.65

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Silvex	52.4	67.4	79.1			16.0
	Sucralose	114	86.4	88.7			2.62
	Thiamethoxam	111	182	180			1.41
	Tolfenpyrad	50.3	44.0	59.1			29.2
	Triclopyr	66.2	74.0	78.3			5.64

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2317004, 2317005
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2317004, 2317005
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2317000
EPA 8270E	PCBs in water matrices by GC/MS/MS	2317000
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2317000
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2317001, 2317002, 2317003
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2317001, 2317002, 2317003
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2317004, 2317005

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	04/06/2022	04/08/2022 10:30	Megan Whitefoot	04/13/2022 18:05	Josef B Mick	2317004
	04/06/2022	04/08/2022 10:30	Megan Whitefoot	04/13/2022 18:27	Josef B Mick	2317005
EPA 200.8 Rev. 5.4	04/06/2022	04/08/2022 10:30	Megan Whitefoot	04/11/2022 18:49	Emily M Philpot	2317005
	04/06/2022	04/08/2022 10:30	Megan Whitefoot	04/11/2022 19:07	Emily M Philpot	2317004
EPA 8270E	04/06/2022	04/07/2022 08:00	Rasheda Ghaffari	04/12/2022 21:04	Vandana T. Nagar	2317000
	04/06/2022	04/07/2022 08:00	Rasheda Ghaffari	04/13/2022 22:34	Vandana T. Nagar	2317000
EPA 8276	04/06/2022	04/07/2022 08:00	Rasheda Ghaffari	04/09/2022 13:49	Arthur Maknenko	2317000
EPA 8321B	04/06/2022	04/07/2022 09:00	June Rhew	04/08/2022 06:32	Juyoung Kim	2317001
	04/06/2022	04/07/2022 09:00	June Rhew	04/08/2022 07:06	Juyoung Kim	2317002
	04/06/2022	04/07/2022 09:00	June Rhew	04/08/2022 07:41	Juyoung Kim	2317003
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/08/2022 16:38	Manjita Shrestha	2317001
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/08/2022 16:51	Manjita Shrestha	2317002
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/08/2022 17:04	Manjita Shrestha	2317003
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/09/2022 06:56	Manjita Shrestha	2317001
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/09/2022 07:11	Manjita Shrestha	2317002
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/09/2022 07:26	Manjita Shrestha	2317003
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/11/2022 13:18	Manjita Shrestha	2317003
SM 2340 B-2011	04/06/2022			04/13/2022 18:05	Josef B Mick	2317004
	04/06/2022			04/13/2022 18:27	Josef B Mick	2317005