

Chemical Analysis Report

NE-DIST-2018-09-13-02

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

Event Description: **LSJR Southside 1**
Request ID: **RQ-2018-09-10-23**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

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

Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 05-OCT-2018 16:27



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 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: MIRAMAR CR @ GADSEN RD

Collection Date/Time: 09/12/2018 09:00

Field ID: 20030825

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025221	EPA 8321B	2,4-D	0.99		ug/L	P351577	
		Bentazon	0.0096		ug/L	P351577	
		MCP	0.0035	I	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.057		ug/L	P351577	
		Diuron	0.012		ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.055		ug/L	P351577	
		Carbamazepine**	0.047		ug/L	P351577	
		Fluridone**	4.0E-04	U	ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	1.9		ug/L	P351579	
		Acesulfame K**	0.89		ug/L	P351579	

Ref. Method and Comment:

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

Sample Location: MIRAMAR CR @ GADSEN RD

Collection Date/Time: 09/12/2018 09:05

Field ID: 20030825dup

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025222	EPA 8321B	2,4-D	1.0		ug/L	P351577	
		Bentazon	0.0096		ug/L	P351577	
		MCP	0.0032	I	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.060		ug/L	P351577	
		Diuron	0.012		ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.060		ug/L	P351577	
		Carbamazepine**	0.049		ug/L	P351577	
		Fluridone**	4.0E-04	U	ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	1.9		ug/L	P351579	
		Acesulfame K**	0.90		ug/L	P351579	

Ref. Method and Comment:

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

Sample Location: MIRAMAR AT SAN JOSE

Collection Date/Time: 09/12/2018 09:10

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025169	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P351648	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P352241	
		Sulfate	61		mg SO4/L	P352244	
	SM 2120 B	Color (true)	25		PCU	P351593	
	SM 2320 B-97	Total Alkalinity	84		mg CaCO3/L	P351715	
	SM 2540 C-97	TDS	255	A	mg/L	P352188	
	SM 2540 D-97	TSS	2	UA	mg/L	P351885	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P351719	
2025170	EPA 350.1 Rev. 2.0	Ammonia-N	0.099		mg N/L	P351823	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P351811	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P351832	
	EPA 365.1 Rev. 2.0	Total-P	0.062		mg P/L	P351752	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P351910	
2025171	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P351615	
2025217	EPA 8321B	Aldicarb	0.020	U	ug/L	P351577	
		Aldicarb Sulfone	0.0020	U	ug/L	P351577	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P351577	MS
		Carbaryl	0.0020	U	ug/L	P351577	
		Carbofuran	0.0020	U	ug/L	P351577	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P351577	
		Methiocarb	0.0020	U	ug/L	P351577	
		Methomyl	0.0020	U	ug/L	P351577	
		Oxamyl	0.0020	U	ug/L	P351577	
		Propoxur	0.0020	U	ug/L	P351577	
2025218		2,4-D	0.72		ug/L	P351577	
		Bentazon	0.035		ug/L	P351577	
		MCP	0.0023	I	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.030		ug/L	P351577	
		Diuron	0.0066	I	ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.028		ug/L	P351577	
		Carbamazepine**	0.026		ug/L	P351577	
		Fluridone**	4.0E-04	U	ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	1.4		ug/L	P351382	
		Glyphosate**	1.9		ug/L	P351382	

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025218	EPA 8321B	AMPA**	0.35	I	ug/L	P351382	
		Endothall**	0.10	U	ug/L	P351382	
		Glufosinate**	0.10	U	ug/L	P351382	
		Acesulfame K**	0.79		ug/L	P351382	
2025225	EPA 8270D	Aldrin	4.0	U	ng/L	P351740	
		Alpha-BHC	2.0	U	ng/L	P351740	
		Beta-BHC	4.0	U	ng/L	P351740	
		Delta-BHC	4.0	U	ng/L	P351740	
		Gamma-BHC	4.0	U	ng/L	P351740	
		Carbophenothion	4.0	U	ng/L	P351740	
		Chlorothalonil	2.0	U	ng/L	P351740	MS
		Cypermethrin	20	U	ng/L	P351740	
		DDD-p,p'	3.0	U	ng/L	P351740	
		DDE-p,p'	3.0	U	ng/L	P351740	
		DDT-p,p'	3.0	U	ng/L	P351740	
		Dieldrin	15	I	ng/L	P351740	
		Endosulfan I	4.0	U	ng/L	P351740	
		Endosulfan II	4.0	U	ng/L	P351740	
		Endosulfan Sulfate	2.0	U	ng/L	P351740	
		Endrin	2.0	U	ng/L	P351740	
		Endrin Aldehyde	2.0	U	ng/L	P351740	
		Heptachlor	1.5	U	ng/L	P351740	
		Heptachlor Epoxide	6.8	I	ng/L	P351740	
		Methoxychlor	4.0	U	ng/L	P351740	
		Mirex	2.0	U	ng/L	P351740	
		Permethrin	10	U	ng/L	P351740	
		Trifluralin	1.0	U	ng/L	P351740	
		Alpha-Chlordane	1.0	U	ng/L	P351740	
		Gamma-Chlordane	1.0	U	ng/L	P351740	
		Endrin Ketone	2.0	U	ng/L	P351740	
		Dicofol	30	U	ng/L	P351740	
		Chlordane	8.5	I	ng/L	P351740	
		Toxaphene	30	U	ng/L	P351740	
		Alachlor	0.24	U	ng/L	P351662	
		Ametryn	0.31	U	ng/L	P351662	
		Atrazine	7.7		ng/L	P351662	
		Atrazine Desethyl	1.6	I	ng/L	P351662	
		Azinphos Methyl	2.1	U	ng/L	P351662	
		Bromacil	3.1		ng/L	P351662	
		Butylate	0.38	U	ng/L	P351662	
		Chlorpyrifos Ethyl	0.60	I	ng/L	P351662	
		Chlorpyrifos Methyl	0.095	U	ng/L	P351662	
		Demeton	1.9	U	ng/L	P351662	MS, RPD
		Diazinon	0.12	U	ng/L	P351662	
		Disulfoton	0.47	U	ng/L	P351662	
2025226	EPA 8270D						

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025226	EPA 8270D	EPTC	1.2	U	ng/L	P351662	
		Ethion	0.14	U	ng/L	P351662	
		Ethoprop	0.095	U	ng/L	P351662	
		Fenamiphos	0.24	U	ng/L	P351662	
		Fipronil	2.9		ng/L	P351662	
		Fipronil Sulfide	3.1		ng/L	P351662	
		Fipronil Sulfone	9.0		ng/L	P351662	
		Hexazinone	0.47	U	ng/L	P351662	
		Malathion	0.33	U	ng/L	P351662	
		Metribuzin	0.19	U	ng/L	P351662	
		Mevinphos	0.47	U	ng/L	P351662	
		Molinate	0.28	U	ng/L	P351662	
		Norflurazon	0.47	U	ng/L	P351662	
		Pendimethalin	0.95	U	ng/L	P351662	
		Phorate	0.24	UJ	ng/L	P351662	LCS
		Prometon	0.85	U	ng/L	P351662	
		Prometryn	0.19	U	ng/L	P351662	
		Simazine	0.47	U	ng/L	P351662	
		Terbufos	0.095	U	ng/L	P351662	
		Terbutylazine	0.40	U	ng/L	P351662	
		Fonofos	0.19	U	ng/L	P351662	
		Metalaxyl	0.24	U	ng/L	P351662	
		Metolachlor	0.38	I	ng/L	P351662	
		Acetochlor	0.24	U	ng/L	P351662	
		Cyanazine	0.47	U	ng/L	P351662	
		Parathion Ethyl	0.24	U	ng/L	P351662	
		Parathion Methyl	0.24	U	ng/L	P351662	
2025233	EPA 200.7 Rev. 4.4	Calcium	42.8		mg/L	P351756	
		Iron	800		ug/L	P351756	
		Magnesium	12.2		mg/L	P351756	
		Potassium	2.9		mg/L	P351756	
		Sodium	20.5		mg/L	P351756	
		Zinc	5.9	I	ug/L	P351756	
	EPA 200.8 Rev. 5.4	Arsenic	0.75		ug/L	P351756	
		Cadmium	0.020	U	ug/L	P351756	
		Chromium	0.40	U	ug/L	P351756	
		Copper	10.7		ug/L	P351756	
		Lead	0.50		ug/L	P351756	
		Nickel	0.76	I	ug/L	P351756	
		Silver	0.010	U	ug/L	P351756	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

EPA 8270D: Matrix spikes precision for Chlorothalonil not reported due to no recoveries.

EPA 8270D: MS accuracy for Atrazine and Ametryn not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: MILLER CR @ SCHUMACHER

Collection Date/Time: 09/12/2018 09:40

Field ID: 20030794

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025223	EPA 8321B	2,4-D	0.0020	U	ug/L	P351577	
		Bentazon	0.0036		ug/L	P351577	
		MCP	0.0020	U	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.046		ug/L	P351577	
		Diuron	0.0020	U	ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.022		ug/L	P351577	
		Carbamazepine**	8.0E-04	U	ug/L	P351577	
		Fluridone**	4.0E-04	U	ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	0.11		ug/L	P351579	
		Acesulfame K**	0.10	U	ug/L	P351579	

Ref. Method and Comment:

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

Sample Location: MILLER CR @ BEACH BLVD

Collection Date/Time: 09/12/2018 10:00

Field ID: 20030828

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025178	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P351648	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P352241	
		Sulfate	53		mg SO4/L	P352244	
	SM 2120 B	Color (true)	59		PCU	P351593	
	SM 2320 B-97	Total Alkalinity	87		mg CaCO3/L	P351715	
	SM 2540 C-97	TDS	236		mg/L	P352188	
	SM 2540 D-97	TSS	2	U	mg/L	P351885	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P351719	
2025179	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P351823	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P351811	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P351832	
	EPA 365.1 Rev. 2.0	Total-P	0.060		mg P/L	P351752	
	SM 5310 B-00	Organic Carbon	5.8		mg C/L	P351910	
2025180	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.027		mg P/L	P351615	
2025224	EPA 8321B	2,4-D	0.0020	U	ug/L	P351577	
		Bentazon	0.0043		ug/L	P351577	
		MCP	0.0020	U	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.034		ug/L	P351577	
		Diuron	0.0020	U	ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.015	I	ug/L	P351577	
		Carbamazepine**	8.0E-04	U	ug/L	P351577	
		Fluridone**	4.0E-04	U	ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	0.31		ug/L	P351579	
		Acesulfame K**	0.26	I	ug/L	P351579	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: BIG POTTSBURG CR N BOWDEN RD

Collection Date/Time: 09/12/2018 10:25

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025172	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P351648	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P352241	
		Sulfate	19		mg SO4/L	P352244	
	SM 2120 B	Color (true)	98		PCU	P351593	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P351715	
	SM 2540 C-97	TDS	170		mg/L	P352188	
	SM 2540 D-97	TSS	2	I	mg/L	P351885	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P351719	
2025174	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P351823	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P351811	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P351832	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P351752	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P351910	
2025176	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.073		mg P/L	P351615	
2025219	EPA 8321B	2,4-D	0.017		ug/L	P351577	
		Bentazon	0.026		ug/L	P351577	
		MCP	0.0020	U	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.046		ug/L	P351577	
		Diuron	0.013		ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.61		ug/L	P351577	
		Carbamazepine**	8.0E-04	U	ug/L	P351577	
		Fluridone**	0.065		ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	0.16		ug/L	P351579	
		Acesulfame K**	0.10	U	ug/L	P351579	
2025234	EPA 200.7 Rev. 4.4	Calcium	33.2		mg/L	P351756	
		Iron	810		ug/L	P351756	
		Magnesium	5.95		mg/L	P351756	
		Potassium	1.9		mg/L	P351756	
		Sodium	12.1		mg/L	P351756	
		Zinc	8.8	I	ug/L	P351756	
	EPA 200.8 Rev. 5.4	Arsenic	0.99		ug/L	P351756	
		Cadmium	0.020	U	ug/L	P351756	
		Chromium	0.40	U	ug/L	P351756	
		Copper	1.13		ug/L	P351756	

Field ID: 20030068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025234	EPA 200.8 Rev. 5.4	Lead	0.26		ug/L	P351756	
		Nickel	1.01		ug/L	P351756	
		Silver	0.010	U	ug/L	P351756	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: BIG POTTSBURG CR AT BELFORT RD

Collection Date/Time: 09/12/2018 10:45

Field ID: 20030064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025173	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P351648	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P352241	
		Sulfate	20		mg SO4/L	P352244	
		Color (true)	99	A	PCU	P351593	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P351715	
	SM 2540 C-97	TDS	177		mg/L	P352188	
	SM 2540 D-97	TSS	2	I	mg/L	P351885	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P351719	
2025175	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P351823	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P351811	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P351832	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P351752	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P351910	
2025177	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.081		mg P/L	P351615	
2025220	EPA 8321B	2,4-D	0.0098		ug/L	P351577	
		Bentazon	0.035		ug/L	P351577	
		MCP	0.0020	U	ug/L	P351577	
		Triclopyr**	0.0040	U	ug/L	P351577	
		Imidacloprid	0.052		ug/L	P351577	
		Diuron	0.011		ug/L	P351577	
		Pyraclostrobin**	0.0020	U	ug/L	P351577	
		Primidone**	0.0040	U	ug/L	P351577	
		Linuron	0.0040	U	ug/L	P351577	
		Acetaminophen**	0.0080	U	ug/L	P351577	
		Fenuron	0.016	U	ug/L	P351577	
		Imazapyr**	0.22		ug/L	P351577	
		Carbamazepine**	8.0E-04	U	ug/L	P351577	
		Fluridone**	0.10		ug/L	P351577	
		Hydrocodone**	8.0E-04	U	ug/L	P351577	
		Naproxen**	0.0080	U	ug/L	P351577	
		Ibuprofen**	0.020	U	ug/L	P351577	
		Sucralose**	0.064		ug/L	P351579	
		Acesulfame K**	0.10	U	ug/L	P351579	
2025235	EPA 200.7 Rev. 4.4	Calcium	34.3		mg/L	P351756	
		Iron	750		ug/L	P351756	
		Magnesium	6.08		mg/L	P351756	
		Potassium	1.7		mg/L	P351756	
		Sodium	11.7		mg/L	P351756	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P351756	
		Arsenic	0.97		ug/L	P351756	
		Cadmium	0.020	U	ug/L	P351756	
		Chromium	0.42	I	ug/L	P351756	
		Copper	1.54		ug/L	P351756	

Field ID: 20030064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2025235	EPA 200.8 Rev. 5.4	Lead	0.27	U	ug/L	P351756	
		Nickel	1.04		ug/L	P351756	
		Silver	0.010		ug/L	P351756	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P351648

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P351756

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P351756

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352241

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352244

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351823

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351811

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351832

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P351752

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P351615

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

Reference Method: EPA 8270D
Batch ID: P351662

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.25	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P351662

Component	Result	Code	Units
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P351740

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P351740

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P351382

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P351382

Component	Result	Code	Units
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P351577

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	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
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P351579

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P351593

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P351715

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

Reference Method: SM 2540 C-97
Batch ID: P352188

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P351885

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P351719

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P351910

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P351756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	108		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	105		P	85 - 115
Sodium	106		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P351756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.4		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	109		P	85 - 115
Copper	93.5		P	85 - 115
Lead	106		P	85 - 115
Nickel	95.4		P	85 - 115
Silver	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352241

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352244

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351823

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351811

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351832

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P351752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P351615

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P351662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	105	98.8	P/P	74 - 119
Alachlor	98.6	93.4	P/P	75 - 118
Ametryn	118	110	P/P	59 - 137
Atrazine	88.6	77.8	P/P	73 - 120
Atrazine Desethyl	70.2	70.3	P/P	19 - 129
Azinphos Methyl	124	120	P/P	65 - 181
Bromacil	81.8	72.1	P/P	43 - 123
Butylate	59.6	65.2	P/P	28 - 85.0
Chlorpyrifos Ethyl	94.0	92.8	P/P	55 - 112
Chlorpyrifos Methyl	94.3	92.6	P/P	35 - 124
Cyanazine	121	121	P/P	26 - 262
Demeton	78.4	80.0	P/P	43 - 122
Diazinon	92.3	87.9	P/P	72 - 120
Disulfoton	82.4	91.5	P/P	45 - 137
EPTC	60.9	66.1	P/P	28 - 95.0
Ethion	79.4	76.8	P/P	63 - 127
Ethoprop	70.5	82.9	P/P	63 - 109
Fenamiphos	98.9	105	P/P	66 - 136
Fipronil	89.8	92.7	P/P	63 - 126
Fipronil Sulfide	89.4	95.3	P/P	59 - 123
Fipronil Sulfone	87.6	93.1	P/P	56 - 122
Fonofos	75.7	71.6	P/P	64 - 114
Hexazinone	87.9	92.1	P/P	49 - 144
Malathion	97.1	95.1	P/P	68 - 131
Metaxyl	95.0	90.3	P/P	57 - 126
Metolachlor	99.6	93.3	P/P	75 - 118
Metribuzin	143	140	P/P	46 - 169
Mevinphos	77.1	73.0	P/P	34 - 126
Molinate	72.1	73.6	P/P	37 - 101
Norflurazon	102	97.0	P/P	63 - 127
Parathion Ethyl	86.9	89.9	P/P	78 - 109
Parathion Methyl	112	122	P/P	74 - 123
Pendimethalin	91.0	107	P/P	51 - 130
Phorate	58.4	53.0	P/F	53 - 116
Prometon	92.1	86.0	P/P	66 - 124
Prometryn	85.5	83.7	P/P	66 - 124
Simazine	92.8	98.2	P/P	62 - 134
Terbufos	78.5	77.9	P/P	59 - 115
Terbutylazine	86.8	81.4	P/P	76 - 113

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P351740

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	60.2	60.8	P/P	24 - 89.0
Alpha-BHC	84.0	77.0	P/P	58 - 117
Alpha-Chlordane	84.8	83.4	P/P	56 - 115
Beta-BHC	100	94.3	P/P	55 - 137
Carbophenothion	101	96.5	P/P	37 - 145
Chlorothalonil	58.6	56.3	P/P	26 - 163
Cypermethrin	89.6	90.1	P/P	42 - 156
DDD-p,p'	96.9	95.9	P/P	59 - 129
DDE-p,p'	82.2	80.1	P/P	52 - 117
DDT-p,p'	90.8	86.1	P/P	48 - 128
Delta-BHC	108	93.9	P/P	59 - 158
Dicofol	105	94.3	P/P	19 - 124
Dieldrin	84.5	84.8	P/P	57 - 126
Endosulfan I	86.4	81.5	P/P	59 - 133
Endosulfan II	91.8	94.6	P/P	58 - 148
Endosulfan Sulfate	91.4	83.0	P/P	56 - 135
Endrin	84.7	93.9	P/P	50 - 140
Endrin Aldehyde	58.6	62.9	P/P	47 - 141
Endrin Ketone	92.3	83.8	P/P	63 - 123
Gamma-BHC	100	86.1	P/P	59 - 132
Gamma-Chlordane	81.7	81.8	P/P	55 - 112
Heptachlor	68.6	72.7	P/P	45 - 102
Heptachlor Epoxide	83.6	81.7	P/P	61 - 116
Methoxychlor	95.1	92.2	P/P	60 - 133
Mirex	68.5	69.1	P/P	40 - 98.0
Permethrin	86.0	82.2	P/P	45 - 131
Trifluralin	79.5	78.9	P/P	38 - 179

Reference Method: EPA 8276
Batch ID: P351740

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	99.5	94.8	P/P	47 - 125
Toxaphene	84.5	86.1	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P351382

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	78.3		P	40 - 150
AMPA	126		P	40 - 150
Endothall	114		P	40 - 150
Glufosinate	87.8		P	40 - 150
Glyphosate	81.5		P	40 - 140
Sucralose	100		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P351577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	82.4		P	40 - 150
3-Hydroxycarbofuran	95.4		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P351577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	86.7		P	30 - 150
Aldicarb	79.7		P	30 - 150
Aldicarb Sulfone	84.4		P	40 - 150
Aldicarb Sulfoxide	88.3		P	40 - 150
Bentazon	55.6		P	30 - 150
Carbamazepine	81.7		P	40 - 150
Carbaryl	78.0		P	40 - 150
Carbofuran	59.0		P	40 - 150
Diuron	77.3		P	40 - 150
Fenuron	85.0		P	40 - 150
Fluridone	88.6		P	40 - 150
Hydrocodone	95.3		P	40 - 150
Ibuprofen	106		P	40 - 150
Imazapyr	76.8		P	40 - 150
Imidacloprid	72.4		P	40 - 160
Linuron	66.0		P	40 - 150
MCPP	93.6		P	40 - 150
Methiocarb	73.5		P	40 - 150
Methomyl	92.8		P	40 - 150
Naproxen	83.5		P	40 - 150
Oxamyl	95.6		P	40 - 150
Primidone	71.9		P	40 - 150
Propoxur	73.5		P	40 - 150
Pyraclostrobin	78.5		P	40 - 150
Triclopyr	86.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P351579

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	125		P	40 - 150
Sucralose	112		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P351593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.6		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P351715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P351719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.1		P	91 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P351910

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P351756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2024826	Calcium	109		P	80 - 120
2024826	Iron	106		P	80 - 120
2024826	Magnesium	108		P	80 - 120
2024826	Potassium	102		P	80 - 120
2024826	Sodium	98.6		P	80 - 120
2024826	Zinc	104		P	80 - 120
2025161	Calcium	101		P	80 - 120
2025161	Iron	106	109	P/P	80 - 120
2025161	Magnesium	109	114	P/P	80 - 120
2025161	Potassium	104	108	P/P	80 - 120
2025161	Sodium	104	110	P/P	80 - 120
2025161	Zinc	102	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P351756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2024826	Arsenic	98.1		P	80 - 120
2024826	Cadmium	105		P	80 - 120
2024826	Chromium	104		P	80 - 120
2024826	Copper	91.1		P	80 - 120
2024826	Lead	103		P	80 - 120
2024826	Nickel	90.8		P	80 - 120
2024826	Silver	101		P	80 - 120
2025161	Arsenic	103	102	P/P	80 - 120
2025161	Cadmium	107	106	P/P	80 - 120
2025161	Chromium	108	109	P/P	80 - 120
2025161	Copper	92.6	93.4	P/P	80 - 120
2025161	Lead	106	107	P/P	80 - 120
2025161	Nickel	96.0	95.8	P/P	80 - 120
2025161	Silver	105	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025038	Chloride	97.7		P	90 - 110
2025199	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352244

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025038	Sulfate	98.2		P	90 - 110
2025199	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025139	Ammonia-N	102	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P351811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025107	Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P351832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025174	NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P351752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025179	Total-P	100	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P351615

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025042	O-Phosphate-P	96.9	97.6	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P351662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2023768	Acetochlor	88.6	95.9	P/P	67 - 125
2023768	Alachlor	87.9	92.8	P/P	69 - 123
2023768	Atrazine Desethyl	60.8	74.3	P/P	10 - 129
2023768	Azinphos Methyl	137	133	P/P	48 - 200
2023768	Bromacil	90.5	85.8	P/P	46 - 130
2023768	Butylate	63.7	62.5	P/P	10 - 85.0
2023768	Chlorpyrifos Ethyl	82.9	85.7	P/P	54 - 115
2023768	Chlorpyrifos Methyl	85.3	90.8	P/P	44 - 117
2023768	Cyanazine	106	107	P/P	10 - 262
2023768	Demeton	84.0	159	P/F	24 - 145
2023768	Diazinon	96.8	99.1	P/P	66 - 129
2023768	Disulfoton	90.1	85.5	P/P	45 - 139
2023768	EPTC	64.5	60.1	P/P	10 - 86.0
2023768	Ethion	81.0	70.4	P/P	59 - 133
2023768	Ethoprop	87.6	78.6	P/P	54 - 116
2023768	Fenamiphos	129	115	P/P	55 - 140
2023768	Fipronil	92.5	91.9	P/P	37 - 142
2023768	Fipronil Sulfide	94.1	89.5	P/P	37 - 130
2023768	Fipronil Sulfone	99.9	94.2	P/P	18 - 143
2023768	Fonofos	84.9	74.8	P/P	55 - 118
2023768	Hexazinone	88.8	86.9	P/P	62 - 140
2023768	Malathion	90.3	85.0	P/P	64 - 132
2023768	Metalaxyl	79.8	85.2	P/P	55 - 129
2023768	Metolachlor	80.8	86.8	P/P	56 - 137
2023768	Metribuzin	143	145	P/P	16 - 218
2023768	Mevinphos	69.8	69.4	P/P	34 - 129
2023768	Molinate	75.4	74.3	P/P	16 - 99.0
2023768	Norflurazon	103	90.6	P/P	43 - 135

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P351662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2023768	Parathion Ethyl	72.7	73.3	P/P	71 - 112
2023768	Parathion Methyl	115	122	P/P	65 - 127
2023768	Pendimethalin	103	101	P/P	35 - 159
2023768	Phorate	88.3	98.2	P/P	41 - 129
2023768	Prometon	87.7	77.7	P/P	56 - 140
2023768	Prometryn	83.5	86.8	P/P	65 - 130
2023768	Simazine	92.1	76.3	P/P	54 - 148
2023768	Terbufos	88.7	81.7	P/P	53 - 126
2023768	Terbutylazine	87.5	93.8	P/P	73 - 114

Reference Method: EPA 8270D
Batch ID: P351740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025255	Aldrin	43.4	42.9	P/P	26 - 96.0
2025255	Alpha-BHC	81.9	89.4	P/P	51 - 123
2025255	Alpha-Chlordane	82.7	86.9	P/P	45 - 120
2025255	Beta-BHC	103	111	P/P	43 - 146
2025255	Carbophenothion	119	128	P/P	26 - 179
2025255	Chlorothalonil	0.0	0.0	F/F	10 - 215
2025255	Cypermethrin	101	106	P/P	35 - 169
2025255	DDD-p,p'	93.4	98.1	P/P	49 - 131
2025255	DDE-p,p'	80.0	83.2	P/P	39 - 127
2025255	DDT-p,p'	89.2	86.1	P/P	49 - 120
2025255	Delta-BHC	131	146	P/P	49 - 187
2025255	Dicofol	89.6	92.8	P/P	10 - 129
2025255	Dieldrin	81.3	87.3	P/P	46 - 132
2025255	Endosulfan I	84.8	95.5	P/P	57 - 130
2025255	Endosulfan II	87.5	108	P/P	52 - 148
2025255	Endosulfan Sulfate	90.1	107	P/P	55 - 129
2025255	Endrin	87.4	93.3	P/P	45 - 133
2025255	Endrin Aldehyde	58.0	57.0	P/P	26 - 140
2025255	Endrin Ketone	118	106	P/P	60 - 125
2025255	Gamma-BHC	101	106	P/P	50 - 145
2025255	Gamma-Chlordane	81.8	85.9	P/P	44 - 118
2025255	Heptachlor	73.1	74.8	P/P	35 - 106
2025255	Heptachlor Epoxide	69.1	74.4	P/P	52 - 123
2025255	Methoxychlor	92.3	88.5	P/P	54 - 132
2025255	Mirex	74.8	74.8	P/P	36 - 107
2025255	Permethrin	91.4	94.2	P/P	47 - 135
2025255	Trifluralin	83.5	85.1	P/P	32 - 228

Reference Method: EPA 8276
Batch ID: P351740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025562	Chlordane	115	101	P/P	41 - 134
2025562	Toxaphene	85.2	82.8	P/P	39 - 158

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P351382

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2023766	Acesulfame K	68.6	81.6	P/P	40 - 150
2023766	AMPA	90.6	88.2	P/P	40 - 150
2023766	Endothall	146	139	P/P	40 - 150
2023766	Glufosinate	68.4	63.7	P/P	40 - 150
2023766	Glyphosate	63.7	69.7	P/P	40 - 140
2023766	Sucralose	117	114	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P351577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025217	3-Hydroxycarbofuran	93.4	95.3	P/P	40 - 150
2025217	Aldicarb	62.9	83.9	P/P	30 - 150
2025217	Aldicarb Sulfone	93.9	90.5	P/P	40 - 150
2025217	Aldicarb Sulfoxide	38.7	37.2	F/F	40 - 150
2025217	Carbaryl	67.3	65.8	P/P	40 - 150
2025217	Carbofuran	52.5	56.8	P/P	40 - 150
2025217	Methiocarb	68.9	69.1	P/P	40 - 150
2025217	Methomyl	83.1	84.1	P/P	40 - 150
2025217	Oxamyl	90.2	83.0	P/P	40 - 150
2025217	Propoxur	62.9	59.3	P/P	40 - 150
2025218	2,4-D	148	86.4	P/P	40 - 150
2025218	Acetaminophen	94.4	87.1	P/P	30 - 150
2025218	Bentazon	31.6	32.1	P/P	30 - 150
2025218	Carbamazepine	67.6	65.0	P/P	40 - 150
2025218	Diuron	57.7	58.4	P/P	40 - 150
2025218	Fenuron	73.2	70.0	P/P	40 - 150
2025218	Fluridone	84.8	81.7	P/P	40 - 150
2025218	Hydrocodone	93.7	97.5	P/P	40 - 150
2025218	Ibuprofen	101	86.1	P/P	40 - 150
2025218	Imazapyr	86.1	86.3	P/P	40 - 150
2025218	Imidacloprid	140	117	P/P	40 - 160
2025218	Linuron	61.2	56.8	P/P	40 - 150
2025218	MCPP	107	105	P/P	40 - 150
2025218	Naproxen	94.5	82.0	P/P	40 - 150
2025218	Primidone	86.2	75.3	P/P	40 - 150
2025218	Pyraclostrobin	83.0	84.8	P/P	40 - 150
2025218	Triclopyr	99.1	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P351579

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2024968	Acesulfame K	87.2	89.8	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P351719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025258	Fluoride	99.3	99.3	P/P	91 - 105

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P351910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2025040	Organic Carbon	102		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P351648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025100	Turbidity	4.94	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P351756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025161	Calcium	0.865	Spike	P	0 - 20
2025161	Iron	2.21	Spike	P	0 - 20
2025161	Magnesium	2.42	Spike	P	0 - 20
2025161	Potassium	2.50	Spike	P	0 - 20
2025161	Sodium	3.30	Spike	P	0 - 20
2025161	Zinc	0.392	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P351756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025161	Arsenic	0.339	Spike	P	0 - 20
2025161	Cadmium	0.782	Spike	P	0 - 20
2025161	Chromium	0.271	Spike	P	0 - 20
2025161	Copper	0.867	Spike	P	0 - 20
2025161	Lead	1.18	Spike	P	0 - 20
2025161	Nickel	0.159	Spike	P	0 - 20
2025161	Silver	0.227	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025038	Chloride	0.231	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P352244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025038	Sulfate	0.0520	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025139	Ammonia-N	1.29	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P351811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025107	Kjeldahl Nitrogen	0.329	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025174	NO2NO3-N	0.264	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P351752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025179	Total-P	1.62	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P351615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025042	O-Phosphate-P	0.720	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P351662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2023768	Acetochlor	7.86	Spike	P	0 - 30
2023768	Alachlor	5.38	Spike	P	0 - 30
2023768	Ametryn	12.1	Spike	P	0 - 30
2023768	Atrazine	9.94	Spike	P	0 - 30
2023768	Atrazine Desethyl	19.9	Spike	P	0 - 30
2023768	Azinphos Methyl	2.83	Spike	P	0 - 30
2023768	Bromacil	5.34	Spike	P	0 - 30
2023768	Butylate	1.87	Spike	P	0 - 30
2023768	Chlorpyrifos Ethyl	3.32	Spike	P	0 - 30
2023768	Chlorpyrifos Methyl	6.26	Spike	P	0 - 30
2023768	Cyanazine	0.707	Spike	P	0 - 30
2023768	Demeton	61.5	Spike	F	0 - 30
2023768	Diazinon	2.36	Spike	P	0 - 30
2023768	Disulfoton	5.23	Spike	P	0 - 30
2023768	EPTC	7.09	Spike	P	0 - 30
2023768	Ethion	14.0	Spike	P	0 - 30
2023768	Ethoprop	10.9	Spike	P	0 - 30
2023768	Fenamiphos	11.5	Spike	P	0 - 30
2023768	Fipronil	0.721	Spike	P	0 - 30
2023768	Fipronil Sulfide	5.04	Spike	P	0 - 30
2023768	Fipronil Sulfone	5.85	Spike	P	0 - 30
2023768	Fonofos	12.6	Spike	P	0 - 30
2023768	Hexazinone	1.55	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P351662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2023768	Malathion	6.13	Spike	P	0 - 30
2023768	Metalaxyl	6.25	Spike	P	0 - 30
2023768	Metolachlor	7.09	Spike	P	0 - 30
2023768	Metribuzin	1.57	Spike	P	0 - 30
2023768	Mevinphos	0.619	Spike	P	0 - 30
2023768	Molinate	1.51	Spike	P	0 - 30
2023768	Norflurazon	13.3	Spike	P	0 - 30
2023768	Parathion Ethyl	0.635	Spike	P	0 - 30
2023768	Parathion Methyl	5.93	Spike	P	0 - 30
2023768	Pendimethalin	2.19	Spike	P	0 - 30
2023768	Phorate	10.6	Spike	P	0 - 30
2023768	Prometon	12.1	Spike	P	0 - 30
2023768	Prometryn	3.87	Spike	P	0 - 30
2023768	Simazine	18.8	Spike	P	0 - 30
2023768	Terbufos	8.26	Spike	P	0 - 30
2023768	Terbutylazine	7.04	Spike	P	0 - 30
LFB	Acetochlor	6.01	LCS	P	0 - 30
LFB	Alachlor	5.40	LCS	P	0 - 30
LFB	Ametryn	6.81	LCS	P	0 - 30
LFB	Atrazine	13.0	LCS	P	0 - 30
LFB	Atrazine Desethyl	0.175	LCS	P	0 - 30
LFB	Azinphos Methyl	3.49	LCS	P	0 - 30
LFB	Bromacil	12.5	LCS	P	0 - 30
LFB	Butylate	8.98	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.22	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.77	LCS	P	0 - 30
LFB	Cyanazine	0.225	LCS	P	0 - 30
LFB	Demeton	2.01	LCS	P	0 - 30
LFB	Diazinon	4.79	LCS	P	0 - 30
LFB	Disulfoton	10.5	LCS	P	0 - 30
LFB	EPTC	8.23	LCS	P	0 - 30
LFB	Ethion	3.35	LCS	P	0 - 30
LFB	Ethoprop	16.3	LCS	P	0 - 30
LFB	Fenamiphos	6.25	LCS	P	0 - 30
LFB	Fipronil	3.17	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.33	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.09	LCS	P	0 - 30
LFB	Fonofos	5.50	LCS	P	0 - 30
LFB	Hexazinone	4.66	LCS	P	0 - 30
LFB	Malathion	2.06	LCS	P	0 - 30
LFB	Metalaxyl	5.14	LCS	P	0 - 30
LFB	Metolachlor	6.54	LCS	P	0 - 30
LFB	Metribuzin	2.09	LCS	P	0 - 30
LFB	Mevinphos	5.45	LCS	P	0 - 30
LFB	Molinate	2.05	LCS	P	0 - 30
LFB	Norflurazon	4.89	LCS	P	0 - 30
LFB	Parathion Ethyl	3.36	LCS	P	0 - 30
LFB	Parathion Methyl	8.62	LCS	P	0 - 30
LFB	Pendimethalin	16.4	LCS	P	0 - 30
LFB	Phorate	9.73	LCS	P	0 - 30
LFB	Prometon	6.89	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P351662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prometryn	2.15	LCS	P	0 - 30
LFB	Simazine	5.63	LCS	P	0 - 30
LFB	Terbufos	0.887	LCS	P	0 - 30
LFB	Terbutylazine	6.38	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P351740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025255	Aldrin	1.08	Spike	P	0 - 30
2025255	Alpha-BHC	8.82	Spike	P	0 - 30
2025255	Alpha-Chlordane	4.88	Spike	P	0 - 30
2025255	Beta-BHC	7.25	Spike	P	0 - 30
2025255	Carbophenothion	7.30	Spike	P	0 - 30
2025255	Cypermethrin	4.14	Spike	P	0 - 30
2025255	DDD-p,p'	4.97	Spike	P	0 - 30
2025255	DDE-p,p'	3.92	Spike	P	0 - 30
2025255	DDT-p,p'	3.46	Spike	P	0 - 30
2025255	Delta-BHC	10.2	Spike	P	0 - 30
2025255	Dicofol	3.58	Spike	P	0 - 30
2025255	Dieldrin	7.10	Spike	P	0 - 30
2025255	Endosulfan I	11.9	Spike	P	0 - 30
2025255	Endosulfan II	21.3	Spike	P	0 - 30
2025255	Endosulfan Sulfate	17.2	Spike	P	0 - 30
2025255	Endrin	6.47	Spike	P	0 - 30
2025255	Endrin Aldehyde	1.73	Spike	P	0 - 30
2025255	Endrin Ketone	10.7	Spike	P	0 - 30
2025255	Gamma-BHC	5.31	Spike	P	0 - 30
2025255	Gamma-Chlordane	4.82	Spike	P	0 - 30
2025255	Heptachlor	2.24	Spike	P	0 - 30
2025255	Heptachlor Epoxide	7.35	Spike	P	0 - 30
2025255	Methoxychlor	4.19	Spike	P	0 - 30
2025255	Mirex	0.0398	Spike	P	0 - 30
2025255	Permethrin	2.97	Spike	P	0 - 30
2025255	Trifluralin	1.93	Spike	P	0 - 30
LFB	Aldrin	1.10	LCS	P	0 - 30
LFB	Alpha-BHC	8.67	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.63	LCS	P	0 - 30
LFB	Beta-BHC	6.27	LCS	P	0 - 30
LFB	Carbophenothion	4.77	LCS	P	0 - 30
LFB	Chlorothalonil	4.00	LCS	P	0 - 30
LFB	Cypermethrin	0.590	LCS	P	0 - 30
LFB	DDD-p,p'	1.04	LCS	P	0 - 30
LFB	DDE-p,p'	2.52	LCS	P	0 - 30
LFB	DDT-p,p'	5.28	LCS	P	0 - 30
LFB	Delta-BHC	14.0	LCS	P	0 - 30
LFB	Dicofol	10.6	LCS	P	0 - 30
LFB	Dieldrin	0.286	LCS	P	0 - 30
LFB	Endosulfan I	5.87	LCS	P	0 - 30
LFB	Endosulfan II	3.01	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P351740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endosulfan Sulfate	9.62	LCS	P	0 - 30
LFB	Endrin	10.3	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.09	LCS	P	0 - 30
LFB	Endrin Ketone	9.65	LCS	P	0 - 30
LFB	Gamma-BHC	15.2	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.0902	LCS	P	0 - 30
LFB	Heptachlor	5.85	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.27	LCS	P	0 - 30
LFB	Methoxychlor	3.17	LCS	P	0 - 30
LFB	Mirex	0.899	LCS	P	0 - 30
LFB	Permethrin	4.59	LCS	P	0 - 30
LFB	Trifluralin	0.723	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P351740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025562	Chlordane	11.5	Spike	P	0 - 30
2025562	Toxaphene	2.87	Spike	P	0 - 30
LFB	Chlordane	4.89	LCS	P	0 - 30
LFB	Toxaphene	1.81	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P351382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2023766	Acesulfame K	17.2	Spike	P	0 - 30
2023766	AMPA	2.66	Spike	P	0 - 30
2023766	Endothall	4.97	Spike	P	0 - 30
2023766	Glufosinate	7.16	Spike	P	0 - 30
2023766	Glyphosate	9.04	Spike	P	0 - 30
2023766	Sucralose	2.41	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P351577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025217	3-Hydroxycarbofuran	1.99	Spike	P	0 - 30
2025217	Aldicarb	28.6	Spike	P	0 - 30
2025217	Aldicarb Sulfone	3.76	Spike	P	0 - 30
2025217	Aldicarb Sulfoxide	3.99	Spike	P	0 - 30
2025217	Carbaryl	2.25	Spike	P	0 - 30
2025217	Carbofuran	7.95	Spike	P	0 - 30
2025217	Methiocarb	0.388	Spike	P	0 - 30
2025217	Methomyl	1.15	Spike	P	0 - 30
2025217	Oxamyl	8.40	Spike	P	0 - 30
2025217	Propoxur	5.92	Spike	P	0 - 30
2025218	2,4-D	6.08	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P351577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025218	Acetaminophen	7.98	Spike	P	0 - 30
2025218	Bentazon	0.574	Spike	P	0 - 30
2025218	Carbamazepine	2.61	Spike	P	0 - 30
2025218	Diuron	1.18	Spike	P	0 - 30
2025218	Fenuron	4.52	Spike	P	0 - 30
2025218	Fluridone	3.76	Spike	P	0 - 30
2025218	Hydrocodone	3.90	Spike	P	0 - 30
2025218	Ibuprofen	15.6	Spike	P	0 - 30
2025218	Imazapyr	0.0992	Spike	P	0 - 30
2025218	Imidacloprid	13.5	Spike	P	0 - 30
2025218	Linuron	7.47	Spike	P	0 - 30
2025218	MCPP	1.88	Spike	P	0 - 30
2025218	Naproxen	14.2	Spike	P	0 - 30
2025218	Primidone	13.4	Spike	P	0 - 30
2025218	Pyraclostrobin	2.13	Spike	P	0 - 30
2025218	Triclopyr	3.54	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P351579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2024968	Acesulfame K	2.88	Spike	P	0 - 30
2024968	Sucralose	21.3	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P351593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025173	Color (true)	1.06	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P351715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025258	Total Alkalinity	0.538	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P352188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025169	TDS	3.14	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P351719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P351719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025258	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P351910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2025040	Organic Carbon	0.610	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2025217
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	56.3	P	30 - 160

Lab Sample ID: 2025218
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	99.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	69.5	P	30 - 160
EPA 8321B	Diuron-d6	63.0	P	30 - 160
EPA 8321B	Endothall-d6	137	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	85.2	P	40 - 160
EPA 8321B	Primidone-d5	79.7	P	30 - 160
EPA 8321B	Sucralose-d6	126	P	40 - 160

Lab Sample ID: 2025219
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	87.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.2	P	30 - 160
EPA 8321B	Diuron-d6	62.0	P	30 - 160
EPA 8321B	Endothall-d6	127	P	40 - 160
EPA 8321B	Ibuprofen-d3	56.7	P	30 - 160
EPA 8321B	Primidone-d5	79.1	P	30 - 160
EPA 8321B	Sucralose-d6	124	P	40 - 160

Lab Sample ID: 2025220
Field Sample ID: 20030064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	101	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.3	P	30 - 160
EPA 8321B	Diuron-d6	61.1	P	30 - 160
EPA 8321B	Endothall-d6	145	P	40 - 160
EPA 8321B	Ibuprofen-d3	76.5	P	30 - 160
EPA 8321B	Primidone-d5	81.4	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	40 - 160

Lab Sample ID: 2025221
Field Sample ID: 20030825

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	100	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.0	P	30 - 160
EPA 8321B	Diuron-d6	68.8	P	30 - 160
EPA 8321B	Endothall-d6	128	P	40 - 160
EPA 8321B	Ibuprofen-d3	76.1	P	30 - 160
EPA 8321B	Primidone-d5	80.3	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2025222
Field Sample ID: 20030825dup

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	103	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.4	P	30 - 160
EPA 8321B	Diuron-d6	66.5	P	30 - 160
EPA 8321B	Endothall-d6	125	P	40 - 160
EPA 8321B	Ibuprofen-d3	72.8	P	30 - 160
EPA 8321B	Primidone-d5	78.9	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	40 - 160

Lab Sample ID: 2025223
Field Sample ID: 20030794

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	72.9	P	30 - 160
EPA 8321B	Endothall-d6	121	P	40 - 160
EPA 8321B	Ibuprofen-d3	65.4	P	30 - 160
EPA 8321B	Primidone-d5	85.3	P	30 - 160
EPA 8321B	Sucralose-d6	123	P	40 - 160

Lab Sample ID: 2025224
Field Sample ID: 20030828

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	105	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.6	P	30 - 160
EPA 8321B	Diuron-d6	71.3	P	30 - 160
EPA 8321B	Endothall-d6	117	P	40 - 160
EPA 8321B	Ibuprofen-d3	81.9	P	30 - 160
EPA 8321B	Primidone-d5	86.5	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 2025225
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	61.0	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	47.1	P	34 - 101
EPA 8276	Decachlorobiphenyl	48.1	P	31 - 108
EPA 8276	PCNB	67.0	P	62 - 142

Lab Sample ID: 2025226
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	98.8	P	71 - 126
EPA 8270D	Terbufos-d10	91.0	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A86461

Included Lab Sample IDs: 2025169, 2025172, 2025173, 2025178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.7	99.0	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A86464

Included Lab Sample IDs: 2025171, 2025176, 2025177, 2025180

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A86479

Included Lab Sample IDs: 2025169, 2025172, 2025173, 2025178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	103	102	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A86482

Included Lab Sample IDs: 2025218, 2025219, 2025220, 2025221, 2025222, 2025223, 2025224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	94.8	P/P	60 - 160
Acesulfame K	107	103	P/P	60 - 160
Endothall	85.2	92.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A86496

Included Lab Sample IDs: 2025218

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	118	149	P/P	60 - 160
Glufosinate	89.2	110	P/P	60 - 160
Glyphosate	99.0	105	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A86512

Included Lab Sample IDs: 2025169, 2025172, 2025173, 2025178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A86512

Included Lab Sample IDs: 2025169, 2025172, 2025173, 2025178

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A86520

Included Lab Sample IDs: 2025218, 2025219, 2025220, 2025221, 2025222, 2025223, 2025224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	91.5	P/P	60 - 160
Sucralose	108	94.1	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A86540

Included Lab Sample IDs: 2025170, 2025174, 2025175, 2025179

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

Reference Method: EPA 8321B

Run ID: A86544

Included Lab Sample IDs: 2025217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	106	101	P/P	50 - 150
Aldicarb	96.8	126	P/P	60 - 150
Aldicarb Sulfone	92.3	98.3	P/P	50 - 150
Aldicarb Sulfoxide	97.2	108	P/P	50 - 150
Carbaryl	107	123	P/P	60 - 150
Carbofuran	98.0	92.3	P/P	50 - 150
Methiocarb	115	133	P/P	50 - 150
Methomyl	108	107	P/P	50 - 150
Oxamyl	113	103	P/P	50 - 150
Propoxur	103	114	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A86557

Included Lab Sample IDs: 2025170, 2025174, 2025175, 2025179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A86558

Included Lab Sample IDs: 2025170, 2025174, 2025175, 2025179

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A86565

Included Lab Sample IDs: 2025233, 2025234, 2025235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.3	107	P/P	90 - 110
Iron	98.8	102	P/P	90 - 110
Magnesium	98.5	102	P/P	90 - 110
Potassium	97.2	100	P/P	90 - 110
Sodium	96.4	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A86565

Included Lab Sample IDs: 2025233, 2025234, 2025235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	99.1	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A86582

Included Lab Sample IDs: 2025170, 2025174, 2025175, 2025179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.6	102	P/P	90 - 110
Kjeldahl Nitrogen	99.7	98.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A86587

Included Lab Sample IDs: 2025170, 2025174, 2025175, 2025179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.8	99.4	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A86646

Included Lab Sample IDs: 2025225

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	104		P	80 - 120
Toxaphene	115		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A86668

Included Lab Sample IDs: 2025233, 2025234, 2025235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.8	96.6	P/P	90 - 110
Arsenic	96.6	96.0	P/P	90 - 110
Cadmium	97.3	98.6	P/P	90 - 110
Cadmium	98.6	98.0	P/P	90 - 110
Chromium	101	105	P/P	90 - 110
Chromium	105	105	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Nickel	94.1	93.3	P/P	90 - 110
Silver	101	102	P/P	90 - 110
Silver	102	101	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A86672

Included Lab Sample IDs: 2025225

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.1		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	97.1		P	80 - 120
Beta-BHC	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A86672

Included Lab Sample IDs: 2025225

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	83.9		P	80 - 120
Chlorothalonil	89.5		P	80 - 120
Cypermethrin	85.1		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	98.0		P	80 - 120
DDT-p,p'	109		P	80 - 120
Delta-BHC	101		P	80 - 120
Dicofol	109		P	80 - 120
Dieldrin	97.3		P	80 - 120
Endosulfan I	93.2		P	80 - 120
Endosulfan II	94.1		P	80 - 120
Endosulfan Sulfate	97.0		P	80 - 120
Endrin	96.9		P	80 - 120
Endrin Aldehyde	81.3		P	80 - 120
Endrin Ketone	102		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	97.0		P	80 - 120
Heptachlor	96.0		P	80 - 120
Heptachlor Epoxide	96.5		P	80 - 120
Methoxychlor	107		P	80 - 120
Mirex	98.0		P	80 - 120
Permethrin	93.9		P	80 - 120
Trifluralin	101		P	80 - 120

Reference Method: EPA 8321B

Run ID: A86696

Included Lab Sample IDs: 2025218, 2025219, 2025220, 2025221, 2025223, 2025224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	74.9	71.6	P/P	60 - 160
Acetaminophen	76.8	74.9	P/P	60 - 160
Acetaminophen	76.9	76.8	P/P	60 - 160
Carbamazepine	101	102	P/P	60 - 160
Carbamazepine	102	110	P/P	60 - 160
Carbamazepine	110	106	P/P	60 - 160
Diuron	105	107	P/P	60 - 150
Diuron	105	101	P/P	60 - 150
Diuron	107	105	P/P	60 - 150
Fenuron	92.1	95.9	P/P	60 - 150
Fenuron	94.6	98.1	P/P	60 - 150
Fenuron	98.1	92.1	P/P	60 - 150
Fluridone	102	108	P/P	60 - 160
Fluridone	103	77.7	P/P	60 - 160
Fluridone	77.7	102	P/P	60 - 160
Hydrocodone	91.9	96.0	P/P	60 - 150
Hydrocodone	95.9	91.9	P/P	60 - 150
Hydrocodone	96.0	94.0	P/P	60 - 150
Imazapyr	77.4	84.4	P/P	50 - 150
Imazapyr	83.3	85.1	P/P	50 - 150
Imazapyr	84.4	83.3	P/P	50 - 150
Imidacloprid	82.8	85.9	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A86696

Included Lab Sample IDs: 2025218, 2025219, 2025220, 2025221, 2025222, 2025223, 2025224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	85.9	91.3	P/P	60 - 150
Imidacloprid	91.3	79.9	P/P	60 - 150
Linuron	100	90.3	P/P	60 - 150
Linuron	90.3	94.3	P/P	60 - 150
Linuron	94.3	99.2	P/P	60 - 150
Primidone	80.2	89.3	P/P	60 - 150
Primidone	80.9	72.0	P/P	60 - 150
Primidone	89.3	80.9	P/P	60 - 150
Pyraclostrobin	101	97.8	P/P	60 - 150
Pyraclostrobin	105	101	P/P	60 - 150
Pyraclostrobin	105	105	P/P	60 - 150

Reference Method: EPA 8321B

Run ID: A86697

Included Lab Sample IDs: 2025218

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	85.4	93.2	P/P	50 - 150
Bentazon	60.8	67.9	P/P	50 - 160
Ibuprofen	63.8	109	P/P	50 - 160
MCP	95.5	97.7	P/P	50 - 150
Naproxen	84.3	112	P/P	50 - 160
Triclopyr	84.6	89.5	P/P	50 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A86718

Included Lab Sample IDs: 2025169, 2025172, 2025173, 2025178

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A86743

Included Lab Sample IDs: 2025233, 2025234, 2025235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	91.1	91.2	P/P	90 - 110
Nickel	90.7	90.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A86770

Included Lab Sample IDs: 2025219, 2025220, 2025223, 2025224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	67.7	86.4	P/P	50 - 150
2,4-D	94.2	67.7	P/P	50 - 150
Bentazon	101	91.0	P/P	50 - 160
Bentazon	91.0	98.8	P/P	50 - 160
Ibuprofen	102	81.9	P/P	50 - 160
Ibuprofen	81.9	96.2	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A86770

Included Lab Sample IDs: 2025219, 2025220, 2025223, 2025224

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPP	101	94.5	P/P	50 - 150
MCPP	103	101	P/P	50 - 150
Naproxen	106	131	P/P	50 - 160
Naproxen	131	102	P/P	50 - 160
Triclopyr	102	102	P/P	50 - 160
Triclopyr	102	101	P/P	50 - 160

Reference Method: EPA 8270D

Run ID: A86820

Included Lab Sample IDs: 2025226

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	92.8		P	80 - 120
Alachlor	94.5		P	80 - 120
Ametryn	91.3		P	80 - 120
Atrazine	97.7		P	80 - 120
Atrazine Desethyl	99.1		P	80 - 120
Azinphos Methyl	95.0		P	80 - 120
Bromacil	96.4		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	93.9		P	80 - 120
Chlorpyrifos Methyl	87.1		P	80 - 120
Cyanazine	90.6		P	80 - 120
Demeton	87.8		P	80 - 120
Diazinon	106		P	80 - 120
Disulfoton	101		P	80 - 120
EPTC	97.6		P	80 - 120
Ethion	88.0		P	80 - 120
Ethoprop	89.6		P	80 - 120
Fenamiphos	101		P	80 - 120
Fipronil	98.1		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	96.8		P	80 - 120
Fonofos	90.8		P	80 - 120
Hexazinone	95.8		P	80 - 120
Malathion	83.9		P	80 - 120
Metalaxyl	95.9		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	89.8		P	80 - 120
Molinate	100		P	80 - 120
Norflurazon	90.5		P	80 - 120
Parathion Ethyl	89.4		P	80 - 120
Parathion Methyl	95.5		P	80 - 120
Pendimethalin	103		P	80 - 120
Phorate	88.7		P	80 - 120
Prometon	97.5		P	80 - 120
Prometryn	94.1		P	80 - 120
Simazine	105		P	80 - 120
Terbufos	92.0		P	80 - 120
Terbutylazine	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A86858

Included Lab Sample IDs: 2025221, 2025222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.5	91.7	P/P	50 - 150
Bentazon	101	106	P/P	50 - 160
Ibuprofen	76.9	98.8	P/P	50 - 160
MCP	80.4	94.7	P/P	50 - 150
Naproxen	59.4	103	P/P	50 - 160
Triclopyr	86.0	94.3	P/P	50 - 160

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							4.94	
EPA 200.7 Rev. 4.4	Calcium	106		109	101				0.865
	Iron	108		106	106	109			2.21
	Magnesium	111		108	109	114			2.42
	Potassium	105		102	104	108			2.50
	Sodium	106		98.6	104	110			3.30
	Zinc	101		104	102	101			0.392
EPA 200.8 Rev. 5.4	Arsenic	99.4		98.1	103	102			0.339
	Cadmium	106		105	107	106			0.782
	Chromium	109		104	108	109			0.271
	Copper	93.5		92.6	93.4	91.1			0.867
	Lead	106		103	106	107			1.18
	Nickel	95.4		90.8	96.0	95.8			0.159
	Silver	104		101	105	105			0.227
EPA 300.0 Rev. 2.1	Chloride	101		97.7	102			0.231	
	Sulfate	100		98.2	100			0.0520	
EPA 350.1 Rev. 2.0	Ammonia-N	101		102	104				1.29
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		103	102				0.329
EPA 353.2 Rev. 2.0	NO2NO3-N	102		99.5	100				0.264
EPA 365.1 Rev. 2.0	Total-P	98.0		100	98.2				1.62
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2		96.9	97.6				0.720
EPA 8270D	Acetochlor	105	98.8	88.6	95.9		6.01		7.86
	Alachlor	93.4	98.6	87.9	92.8		5.40		5.38
	Aldrin	60.2	60.8	43.4	42.9		1.10		1.08
	Alpha-BHC	84.0	77.0	81.9	89.4		8.67		8.82
	Alpha-Chlordane	84.8	83.4	82.7	86.9		1.63		4.88
	Ametryn	118	110				6.81		12.1
	Atrazine	88.6	77.8				13.0		9.94
	Atrazine Desethyl	70.2	70.3	60.8	74.3		0.175		19.9
	Azinphos Methyl	124	120	137	133		3.49		2.83
	Beta-BHC	100	94.3	103	111		6.27		7.25
	Bromacil	81.8	72.1	90.5	85.8		12.5		5.34
	Butylate	59.6	65.2	63.7	62.5		8.98		1.87
	Carbophenothion	101	96.5	119	128		4.77		7.30
	Chlorothalonil	58.6	56.3	0.0	0.0		4.00		
	Chlorpyrifos Ethyl	94.0	92.8	82.9	85.7		1.22		3.32
	Chlorpyrifos Methyl	94.3	92.6	85.3	90.8		1.77		6.26
	Cyanazine	121	121	106	107		0.225		0.707
	Cypermethrin	89.6	90.1	101	106		0.590		4.14
	DDD-p,p'	96.9	95.9	93.4	98.1		1.04		4.97
	DDE-p,p'	82.2	80.1	80.0	83.2		2.52		3.92
	DDT-p,p'	90.8	86.1	89.2	86.1		5.28		3.46
	Delta-BHC	108	93.9	131	146		14.0		10.2
	Demeton	80.0	78.4	84.0	159		2.01		61.5
	Diazinon	87.9	92.3	96.8	99.1		4.79		2.36
	Dicofol	105	94.3	89.6	92.8		10.6		3.58
	Dieldrin	84.5	84.8	81.3	87.3		0.286		7.10
	Disulfoton	82.4	91.5	90.1	85.5		10.5		5.23
	Endosulfan I	86.4	81.5	84.8	95.5		5.87		11.9
	Endosulfan II	91.8	94.6	87.5	108		3.01		21.3
	Endosulfan Sulfate	91.4	83.0	90.1	107		9.62		17.2
	Endrin	84.7	93.9	87.4	93.3		10.3		6.47
	Endrin Aldehyde	58.6	62.9	58.0	57.0		7.09		1.73
	Endrin Ketone	92.3	83.8	118	106		9.65		10.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	EPTC	60.9	66.1	64.5	60.1	8.23	7.09
	Ethion	79.4	76.8	81.0	70.4	3.35	14.0
	Ethoprop	70.5	82.9	87.6	78.6	16.3	10.9
	Fenamiphos	98.9	105	129	115	6.25	11.5
	Fipronil	89.8	92.7	92.5	91.9	3.17	0.721
	Fipronil Sulfide	89.4	95.3	94.1	89.5	6.33	5.04
	Fipronil Sulfone	87.6	93.1	99.9	94.2	6.09	5.85
	Fonofos	75.7	71.6	84.9	74.8	5.50	12.6
	Gamma-BHC	100	86.1	101	106	15.2	5.31
	Gamma-Chlordane	81.7	81.8	81.8	85.9	0.0902	4.82
	Heptachlor	68.6	72.7	73.1	74.8	5.85	2.24
	Heptachlor Epoxide	83.6	81.7	69.1	74.4	2.27	7.35
	Hexazinone	87.9	92.1	88.8	86.9	4.66	1.55
	Malathion	97.1	95.1	90.3	85.0	2.06	6.13
	Metalaxyl	95.0	90.3	79.8	85.2	5.14	6.25
	Methoxychlor	95.1	92.2	92.3	88.5	3.17	4.19
	Metolachlor	99.6	93.3	80.8	86.8	6.54	7.09
	Metribuzin	143	140	143	145	2.09	1.57
	Mevinphos	77.1	73.0	69.8	69.4	5.45	0.619
	Mirex	68.5	69.1	74.8	74.8	0.899	0.0398
	Molinate	72.1	73.6	75.4	74.3	2.05	1.51
	Norflurazon	102	97.0	103	90.6	4.89	13.3
	Parathion Ethyl	86.9	89.9	72.7	73.3	3.36	0.635
	Parathion Methyl	112	122	115	122	8.62	5.93
	Pendimethalin	91.0	107	103	101	16.4	2.19
	Permethrin	86.0	82.2	91.4	94.2	4.59	2.97
	Phorate	58.4	53.0	88.3	98.2	9.73	10.6
	Prometon	92.1	86.0	87.7	77.7	6.89	12.1
	Prometryn	85.5	83.7	83.5	86.8	2.15	3.87
	Simazine	92.8	98.2	92.1	76.3	5.63	18.8
	Terbufos	78.5	77.9	88.7	81.7	0.887	8.26
	Terbutylazine	86.8	81.4	87.5	93.8	6.38	7.04
	Trifluralin	79.5	78.9	83.5	85.1	0.723	1.93
EPA 8276	Chlordane	99.5	94.8	115	101	4.89	11.5
	Toxaphene	84.5	86.1	85.2	82.8	1.81	2.87
EPA 8321B	2,4-D	82.4		148	86.4		6.08
	3-Hydroxycarbofuran	95.4		93.4	95.3		1.99
	Acesulfame K	78.3		68.6	81.6		17.2
	Acesulfame K	125		87.2	89.8		2.88
	Acetaminophen	86.7		94.4	87.1		7.98
	Aldicarb	79.7		62.9	83.9		28.6
	Aldicarb Sulfone	84.4		93.9	90.5		3.76
	Aldicarb Sulfoxide	88.3		38.7	37.2		3.99
	AMPA	126		90.6	88.2		2.66
	Bentazon	55.6		31.6	32.1		0.574
	Carbamazepine	81.7		67.6	65.0		2.61
	Carbaryl	78.0		67.3	65.8		2.25
	Carbofuran	59.0		52.5	56.8		7.95
	Diuron	77.3		57.7	58.4		1.18
	Endothall	114		146	139		4.97
	Fenuron	85.0		73.2	70.0		4.52
	Fluridone	88.6		84.8	81.7		3.76
	Glufosinate	87.8		68.4	63.7		7.16
	Glyphosate	81.5		63.7	69.7		9.04

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Hydrocodone	95.3	93.7	97.5			3.90
	Ibuprofen	106	101	86.1			15.6
	Imazapyr	76.8	86.1	86.3			0.0992
	Imidacloprid	72.4	140	117			13.5
	Linuron	66.0	61.2	56.8			7.47
	MCCP	93.6	107	105			1.88
	Methiocarb	73.5	68.9	69.1			0.388
	Methomyl	92.8	83.1	84.1			1.15
	Naproxen	83.5	94.5	82.0			14.2
	Oxamyl	95.6	90.2	83.0			8.40
	Primidone	71.9	86.2	75.3			13.4
	Propoxur	73.5	62.9	59.3			5.92
	Pyraclostrobin	78.5	83.0	84.8			2.13
	Sucralose	100	117	114			2.41
	Sucralose	112					21.3
	Triclopyr	86.2	99.1	103			3.54
SM 2120 B	Color (true)	96.6				1.06	
SM 2320 B-97	Total Alkalinity	103				0.538	
SM 2540 C-97	TDS					3.14	
SM 4500 F-C-97	Fluoride	99.1	99.3	99.3			0.0
SM 5310 B-00	Organic Carbon	101	102				0.610

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2025169, 2025172, 2025173, 2025178
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2025233, 2025234, 2025235
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2025233, 2025234, 2025235
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2025169, 2025172, 2025173, 2025178
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2025169, 2025172, 2025173, 2025178
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2025170, 2025174, 2025175, 2025179
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2025170, 2025174, 2025175, 2025179
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2025170, 2025174, 2025175, 2025179
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2025170, 2025174, 2025175, 2025179
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2025171, 2025176, 2025177, 2025180
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2025225
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2025226
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2025225
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2025217
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2025218, 2025219, 2025220, 2025221, 2025222, 2025223, 2025224
SM 2120 B / E31780	True Color measured at 450 nm	2025169, 2025172, 2025173, 2025178
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2025169, 2025172, 2025173, 2025178
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2025169, 2025172, 2025173, 2025178

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2025169, 2025172, 2025173, 2025178
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2025169, 2025172, 2025173, 2025178
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2025170, 2025174, 2025175, 2025179

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	09/13/2018			09/13/2018 16:38	Megan Treadwell	2025169, 2025172, 2025173, 2025178
EPA 200.7 Rev. 4.4	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/18/2018 17:00	Betina Topolski	2025233
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/18/2018 17:08	Betina Topolski	2025234
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/18/2018 17:15	Betina Topolski	2025235
EPA 200.8 Rev. 5.4	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/22/2018 02:52	Allison Taylor	2025233
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/22/2018 03:40	Allison Taylor	2025234
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/22/2018 03:50	Allison Taylor	2025235
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/25/2018 21:20	Allison Taylor	2025233
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/25/2018 21:28	Allison Taylor	2025234
	09/13/2018	09/17/2018 15:55	Elliott D. Healy	09/25/2018 21:35	Allison Taylor	2025235
EPA 300.0 Rev. 2.1	09/13/2018			09/24/2018 21:36	Lipi Saha	2025169
	09/13/2018			09/24/2018 21:48	Lipi Saha	2025172
	09/13/2018			09/24/2018 22:00	Lipi Saha	2025173
	09/13/2018			09/24/2018 22:12	Lipi Saha	2025178
EPA 350.1 Rev. 2.0	09/13/2018			09/18/2018 13:01	Ping Hua	2025170
	09/13/2018			09/18/2018 13:03	Ping Hua	2025174
	09/13/2018			09/18/2018 13:04	Ping Hua	2025175
	09/13/2018			09/18/2018 13:06	Ping Hua	2025179
EPA 351.2 Rev. 2.0	09/13/2018	09/18/2018 14:10	Adrian Shelby	09/19/2018 13:44	Joseph Suarez	2025170
	09/13/2018	09/18/2018 14:10	Adrian Shelby	09/19/2018 13:49	Joseph Suarez	2025174
	09/13/2018	09/18/2018 14:10	Adrian Shelby	09/19/2018 13:50	Joseph Suarez	2025175
	09/13/2018	09/18/2018 14:10	Adrian Shelby	09/19/2018 13:52	Joseph Suarez	2025179
EPA 353.2 Rev. 2.0	09/13/2018			09/18/2018 14:37	Lauren Bottorf	2025174
	09/13/2018			09/18/2018 14:38	Lauren Bottorf	2025175
	09/13/2018			09/18/2018 14:40	Lauren Bottorf	2025179
	09/13/2018			09/18/2018 15:43	Lauren Bottorf	2025170
EPA 365.1 Rev. 2.0	09/13/2018	09/17/2018 13:00	Sima Feizi	09/18/2018 08:28	Beverly Y. Sanders	2025179
	09/13/2018	09/17/2018 13:00	Sima Feizi	09/18/2018 08:34	Beverly Y. Sanders	2025170
	09/13/2018	09/17/2018 13:00	Sima Feizi	09/18/2018 08:35	Beverly Y. Sanders	2025174
	09/13/2018	09/17/2018 13:00	Sima Feizi	09/18/2018 08:36	Beverly Y. Sanders	2025175
EPA 365.1 Rev. 2.0 dissolved	09/13/2018			09/13/2018 16:08	Julia Storbeck	2025171
	09/13/2018			09/13/2018 16:09	Julia Storbeck	2025176
	09/13/2018			09/13/2018 16:10	Julia Storbeck	2025177
	09/13/2018			09/13/2018 16:11	Julia Storbeck	2025180
EPA 8270D	09/13/2018	09/14/2018 10:00	Rasheda Ghaffari	09/24/2018 17:34	Vandana T. Nagar	2025226
	09/13/2018	09/18/2018 09:00	Fe-Val Siddell	09/21/2018 21:48	Dinesh Mishra	2025225
EPA 8276	09/13/2018	09/18/2018 09:00	Fe-Val Siddell	09/20/2018 21:08	Arthur Maknenko	2025225
EPA 8321B	09/13/2018	09/13/2018 13:00	Mohammad Ghaffari	09/13/2018 19:25	Mohammad Ghaffari	2025218
	09/13/2018	09/13/2018 13:00	Mohammad Ghaffari	09/14/2018 12:54	Mohammad Ghaffari	2025218
	09/13/2018	09/13/2018 13:00	Mohammad Ghaffari	09/14/2018 21:25	Mohammad Ghaffari	2025218

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/14/2018 09:32	Mohammad Ghaffari	2025219
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/14/2018 09:47	Mohammad Ghaffari	2025220
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/14/2018 10:01	Mohammad Ghaffari	2025221
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/14/2018 10:16	Mohammad Ghaffari	2025222
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/14/2018 10:31	Mohammad Ghaffari	2025223
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/14/2018 10:45	Mohammad Ghaffari	2025224
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/15/2018 00:21	Mohammad Ghaffari	2025219
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/15/2018 00:36	Mohammad Ghaffari	2025220
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/15/2018 00:50	Mohammad Ghaffari	2025221
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/15/2018 01:05	Mohammad Ghaffari	2025222
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/15/2018 01:20	Mohammad Ghaffari	2025223
	09/13/2018	09/13/2018 15:30	Mohammad Ghaffari	09/15/2018 01:34	Mohammad Ghaffari	2025224
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/17/2018 08:13	Juyoung Kim	2025217
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 11:03	Mohammad Ghaffari	2025218
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 18:00	Mohammad Ghaffari	2025219
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 18:34	Mohammad Ghaffari	2025220
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 19:09	Mohammad Ghaffari	2025221
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 19:44	Mohammad Ghaffari	2025222
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 20:53	Mohammad Ghaffari	2025223
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/23/2018 21:28	Mohammad Ghaffari	2025224
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/25/2018 09:49	Juyoung Kim	2025218
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/26/2018 23:59	Juyoung Kim	2025219
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/27/2018 01:08	Juyoung Kim	2025220
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/27/2018 02:52	Juyoung Kim	2025223
	09/13/2018	09/14/2018 12:00	Hoor Shaik	09/27/2018 03:27	Juyoung Kim	2025224
	09/13/2018	09/14/2018 12:00	Hoor Shaik	10/03/2018 00:28	Juyoung Kim	2025221
	09/13/2018	09/14/2018 12:00	Hoor Shaik	10/03/2018 01:03	Juyoung Kim	2025221
	09/13/2018	09/14/2018 12:00	Hoor Shaik	10/03/2018 01:37	Juyoung Kim	2025222
SM 2120 B	09/13/2018			09/13/2018 14:20	DeAsia Armster	2025169
	09/13/2018			09/13/2018 14:21	DeAsia Armster	2025172
	09/13/2018			09/13/2018 14:22	DeAsia Armster	2025173
	09/13/2018			09/13/2018 14:23	DeAsia Armster	2025178
SM 2320 B-97	09/13/2018			09/15/2018 08:11	Dale L. Simmons	2025169
	09/13/2018			09/15/2018 08:21	Dale L. Simmons	2025172
	09/13/2018			09/15/2018 08:31	Dale L. Simmons	2025173
	09/13/2018			09/15/2018 08:42	Dale L. Simmons	2025178
SM 2540 C-97	09/13/2018			09/17/2018 11:30	DeAsia Armster	2025169, 2025172, 2025173, 2025178
SM 2540 D-97	09/13/2018			09/17/2018 11:30	DeAsia Armster	2025169, 2025172, 2025173, 2025178
SM 4500 F-C-97	09/13/2018			09/15/2018 08:11	Dale L. Simmons	2025169
	09/13/2018			09/15/2018 08:21	Dale L. Simmons	2025172

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	09/13/2018			09/15/2018 08:31	Dale L. Simmons	2025173
	09/13/2018			09/15/2018 08:42	Dale L. Simmons	2025178
SM 5310 B-00	09/13/2018			09/19/2018 11:09	Megan Treadwell	2025170
	09/13/2018			09/19/2018 11:21	Megan Treadwell	2025174
	09/13/2018			09/19/2018 11:34	Megan Treadwell	2025175
	09/13/2018			09/19/2018 11:46	Megan Treadwell	2025179