

Chemical Analysis Report

SO-DIST-2023-01-20-01

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

Event Description: **2023 SMP: Stadium Arcadia**
Request ID: **RQ-2023-01-16-20**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: William Mullen

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Certified by: Colin Wright, Program Administrator

Date Certified: 08-FEB-2023 10:28

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

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: G3SD0237

Collection Date/Time: 01/19/2023 09:10

Field ID: G3SD0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382134	EPA 8321B	2,4-D	0.0076	I	ug/L	P424846	
		Acesulfame K	0.10	U	ug/L	P424718	
		2,4,5-T	0.0040	U	ug/L	P424846	
		AMPA	0.18	I	ug/L	P424718	
		Acetaminophen	0.0080	U	ug/L	P424846	
		Acetamiprid	0.0020	U	ug/L	P424846	
		Endothall	0.25	U	ug/L	P424718	
		Glufosinate	0.10	U	ug/L	P424718	
		Glyphosate	0.31	I	ug/L	P424718	
		Afidopyropen	0.0020	U	ug/L	P424846	
		Bentazon	8.0E-04	U	ug/L	P424846	
		Sucralose	0.041		ug/L	P424718	
		Benzovindiflupyr	0.0020	U	ug/L	P424846	
		Carbamazepine	8.0E-04	U	ug/L	P424846	
		Clothianidin	0.011		ug/L	P424846	
		Dinotefuran	0.0020	U	ug/L	P424846	
		Diuron	0.014		ug/L	P424846	
		Fenuron	0.032	U	ug/L	P424846	
		Fluridone	8.0E-04	U	ug/L	P424846	
		Imazapyr	0.013	I	ug/L	P424846	
		Hydrocodone	0.0020	U	ug/L	P424846	
		Ibuprofen	0.080	U	ug/L	P424846	
		Imidacloprid	0.036		ug/L	P424846	MS
		Linuron	0.0040	U	ug/L	P424846	
		Mandestrobin	0.0020	U	ug/L	P424846	
		MCPP	0.0020	U	ug/L	P424846	
		Naproxen	0.0080	U	ug/L	P424846	
		Primidone	0.0040	U	ug/L	P424846	
		Pyraclostrobin	0.0020	U	ug/L	P424846	
		Silvex	0.0040	U	ug/L	P424846	
		Thiamethoxam	0.041		ug/L	P424846	
		Tolfenpyrad	0.0020	U	ug/L	P424846	
		Triclopyr	0.0040	U	ug/L	P424846	

Ref. Method and Comment:

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

Sample Location: G3SD0096

Collection Date/Time: 01/19/2023 10:00

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382135	EPA 8321B	2,4-D	0.0046	I	ug/L	P424948	
		Acesulfame K	0.10	U	ug/L	P424718	
		2,4,5-T	0.0040	U	ug/L	P424948	
		AMPA	1.7		ug/L	P424718	
		Acetaminophen	0.0080	U	ug/L	P424948	
		Acetamiprid	0.0020	U	ug/L	P424948	
		Endothall	0.25	U	ug/L	P424718	
		Glufosinate	0.10	U	ug/L	P424718	
		Glyphosate	2.1		ug/L	P424718	
		Afidopyropen	0.0020	U	ug/L	P424948	
		Bentazon	8.0E-04	U	ug/L	P424948	
		Sucralose	7.5		ug/L	P424718	
		Benzovindiflupyr	0.0020	U	ug/L	P424948	
		Carbamazepine	0.033		ug/L	P424948	
		Clothianidin	0.47		ug/L	P424948	
		Dinotefuran	0.010		ug/L	P424948	
		Diuron	0.0048	I	ug/L	P424948	
		Fenuron	0.032	U	ug/L	P424948	
		Fluridone	8.0E-04	U	ug/L	P424948	
		Imazapyr	0.0046	I	ug/L	P424948	
		Hydrocodone	0.0020	U	ug/L	P424948	
		Ibuprofen	0.080	U	ug/L	P424948	
		Imidacloprid	0.32		ug/L	P424948	
		Linuron	0.0040	U	ug/L	P424948	
		Mandestrobin	0.0020	U	ug/L	P424948	
		MCPP	0.0020	U	ug/L	P424948	MS
		Naproxen	0.0080	UJ	ug/L	P424948	CCV
		Primidone	0.10		ug/L	P424948	
		Pyraclostrobin	0.0020	U	ug/L	P424948	
		Silvex	0.0040	U	ug/L	P424948	
		Thiamethoxam	0.0020	U	ug/L	P424948	
		Tolfenpyrad	0.0020	U	ug/L	P424948	
		Triclopyr	0.0040	U	ug/L	P424948	

Ref. Method and Comment:
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: G3SD0159

Collection Date/Time: 01/19/2023 10:30

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382133	EPA 8270E	Aldrin	0.74	U	ng/L	P424717	
		Alpha-BHC	0.11	U	ng/L	P424717	
		Alpha-Chlordane	0.23	U	ng/L	P424717	
		PCB-1016	2.3	UQ	ng/L	P425033	
		Beta-BHC	0.11	U	ng/L	P424717	
		PCB-1221	2.3	UQ	ng/L	P425033	
		Beta-Cyfluthrin	1.4	U	ng/L	P424717	
		PCB-1232	2.3	UQ	ng/L	P425033	
		Bifenthrin	0.57	U	ng/L	P424717	
		PCB-1242	2.3	UQ	ng/L	P425033	
		Carbophenothion	1.0	U	ng/L	P424717	
		PCB-1248	2.3	UQ	ng/L	P425033	
		Chlorothalonil	4.1	U	ng/L	P424717	
		PCB-1254	2.3	UQ	ng/L	P425033	
		Cis-Nonachlor	0.23	U	ng/L	P424717	
		PCB-1260	2.3	UQ	ng/L	P425033	
		Cypermethrin	1.7	U	ng/L	P424717	
		Dacthal	0.17	U	ng/L	P424717	
		DDD-p,p'	0.28	U	ng/L	P424717	
		DDE-p,p'	0.23	U	ng/L	P424717	
		DDT-p,p'	0.28	U	ng/L	P424717	
		Delta-BHC	0.45	U	ng/L	P424717	
		Deltamethrin	1.4	U	ng/L	P424717	
		Dichlobenil	0.28	U	ng/L	P424717	
		Dicofol	1.4	U	ng/L	P424717	
		Dieldrin	0.45	U	ng/L	P424717	
		Endosulfan I	0.45	U	ng/L	P424717	
		Endosulfan II	0.45	U	ng/L	P424717	
		Endosulfan Sulfate	0.34	U	ng/L	P424717	
		Endrin	0.45	U	ng/L	P424717	
		Endrin Aldehyde	0.85	UJ	ng/L	P424717	LCS
		Endrin Ketone	0.45	U	ng/L	P424717	RPD
		Esfenvalerate	0.85	U	ng/L	P424717	
		Ethalfuralin	0.17	U	ng/L	P424717	
		Fenpropathrin	0.28	U	ng/L	P424717	
		Gamma-BHC	0.14	U	ng/L	P424717	
		Gamma-Chlordane	0.23	U	ng/L	P424717	
		Heptachlor	0.23	U	ng/L	P424717	
		Heptachlor Epoxide	0.28	U	ng/L	P424717	
		Hexachlorobenzene**	1.1	U	ng/L	P424717	
		Kepone	5.7	U	ng/L	P424717	
		Lambda-Cyhalothrin	0.85	U	ng/L	P424717	
		Methoprene	0.85	U	ng/L	P424717	
		Methoxychlor	0.34	U	ng/L	P424717	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382133	EPA 8270E	MGK-264	0.23	U	ng/L	P424717	
		Mirex	0.40	U	ng/L	P424717	
		Oxychlordane	0.34	U	ng/L	P424717	
		Permethrin	1.8	U	ng/L	P424717	
		Phenothrin	1.0	U	ng/L	P424717	
		Piperonyl Butoxide	0.30	I	ng/L	P424717	
		Prallethrin	2.3	U	ng/L	P424717	
		Tau-Fluvalinate	0.28	U	ng/L	P424717	
		Tetramethrin	0.85	U	ng/L	P424717	
		Trans-Nonachlor	0.23	U	ng/L	P424717	
		Triclosan Methyl	0.17	U	ng/L	P424717	
		Trifluralin	0.23	U	ng/L	P424717	
		Chlordane	2.3	U	ng/L	P424717	
		Toxaphene	17	U	ng/L	P424717	
2382136	EPA 8321B						
		2,4-D	0.0059	I	ug/L	P424948	
		Acesulfame K	0.10	U	ug/L	P424718	
		2,4,5-T	0.0040	U	ug/L	P424948	
		AMPA	0.88		ug/L	P424718	
		Acetaminophen	0.0080	U	ug/L	P424948	
		Acetamiprid	0.0020	U	ug/L	P424948	
		Endothall	0.25	U	ug/L	P424718	
		Glufosinate	0.10	U	ug/L	P424718	
		Glyphosate	0.68		ug/L	P424718	
		Afidopyropen	0.0020	U	ug/L	P424948	
		Bentazon	0.0021	I	ug/L	P424948	
		Sucralose	0.38		ug/L	P424718	
		Benzovindiflupyr	0.0020	U	ug/L	P424948	
		Carbamazepine	0.0019	I	ug/L	P424948	
		Clothianidin	0.16		ug/L	P424948	
		Dinotefuran	0.0020	U	ug/L	P424948	
		Diuron	0.10		ug/L	P424948	
		Fenuron	0.056	I	ug/L	P424948	
		Fluridone	8.0E-04	U	ug/L	P424948	
		Imazapyr	0.017		ug/L	P424948	
		Hydrocodone	0.0020	U	ug/L	P424948	
		Ibuprofen	0.080	U	ug/L	P424948	
		Imidacloprid	0.37		ug/L	P424948	
		Linuron	0.0040	U	ug/L	P424948	
		Mandestrobin	0.0020	U	ug/L	P424948	
		MCP	0.0020	U	ug/L	P424948	MS
		Naproxen	0.0080	UJ	ug/L	P424948	CCV
		Primidone	0.0056	I	ug/L	P424948	
		Pyraclostrobin	0.0020	U	ug/L	P424948	
		Silvex	0.0040	U	ug/L	P424948	
		Thiamethoxam	0.31		ug/L	P424948	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382136	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P424948	
		Triclopyr	0.0040	U	ug/L	P424948	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Insufficient sample available to perform duplicate matrix spikes. Sample expired for preparation due to need for re-extraction.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: G3SD0011

Collection Date/Time: 01/19/2023 11:00

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382115	DEP SOP: NU-094-1	Color (true)	64		PCU	P424807	
	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P424818	
	EPA 300.0 Rev. 2.1	Chloride	180		mg Cl/L	P425173	
		Sulfate	140		mg SO4/L	P425175	
	SM 2320 B-2011	Total Alkalinity	128		mg CaCO3/L	P425184	
	SM 2540 C-2015	TDS	644		mg/L	P425331	
	SM 2540 D-2015	TSS	2	I	mg/L	P425212	
	SM 4500-F- C-2011	Fluoride	0.48		mg F/L	P425188	
2382116	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P425410	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P424999	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.66		mg N/L	P425090	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P424980	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P425085	
2382137	EPA 8321B	2,4-D	0.0093		ug/L	P424948	
		Acesulfame K	0.10	U	ug/L	P424718	
		2,4,5-T	0.0040	U	ug/L	P424948	
		AMPA	1.2		ug/L	P424718	
		Acetaminophen	0.0080	U	ug/L	P424948	
		Acetamiprid	0.0020	U	ug/L	P424948	
		Endothall	0.25	U	ug/L	P424718	
		Glufosinate	0.10	U	ug/L	P424718	
		Glyphosate	1.3		ug/L	P424718	
		Afidopyropen	0.0020	U	ug/L	P424948	
		Bentazon	0.0068		ug/L	P424948	
		Sucralose	0.90		ug/L	P424718	
		Benzovindiflupyr	0.0048	I	ug/L	P424948	
		Carbamazepine	0.0049		ug/L	P424948	
		Clothianidin	0.20		ug/L	P424948	
		Dinotefuran	0.0020	U	ug/L	P424948	
		Diuron	0.25		ug/L	P424948	
		Fenuron	0.17		ug/L	P424948	
		Fluridone	8.0E-04	U	ug/L	P424948	
		Imazapyr	0.0068	I	ug/L	P424948	
		Hydrocodone	0.0020	U	ug/L	P424948	
		Ibuprofen	0.080	U	ug/L	P424948	
		Imidacloprid	0.38		ug/L	P424948	
		Linuron	0.0040	U	ug/L	P424948	
		Mandestrobin	0.0020	U	ug/L	P424948	
		MCPP	0.0020	U	ug/L	P424948	MS
		Naproxen	0.0080	UJ	ug/L	P424948	CCV
		Primidone	0.013	I	ug/L	P424948	
		Pyraclostrobin	0.0020	U	ug/L	P424948	
		Silvex	0.0040	U	ug/L	P424948	
		Thiamethoxam	0.0020	U	ug/L	P424948	

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382137	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P424948	
		Triclopyr	0.0040	U	ug/L	P424948	
2382141	EPA 200.7 Rev. 4.4	Calcium	97.9		mg/L	P424892	
		Chromium	1.0	U	ug/L	P424892	
		Iron	240		ug/L	P424892	
		Magnesium	27.6		mg/L	P424892	
		Potassium	10.9		mg/L	P424892	
		Sodium	74.3		mg/L	P424892	
		Strontium	9.76E+03		ug/L	P424892	
		Tin	3.0	U	ug/L	P424892	
		Titanium	0.82	I	ug/L	P424892	
		Vanadium	3.4	I	ug/L	P424892	
		Zinc	7.0	I	ug/L	P424892	
	EPA 200.8 Rev. 5.4	Aluminum	36		ug/L	P424892	
		Antimony	0.70		ug/L	P424892	
		Arsenic	1.28		ug/L	P424892	
		Barium	37.0		ug/L	P424892	
		Beryllium	0.010	U	ug/L	P424892	
		Boron	61.8		ug/L	P424892	
		Cadmium	0.024	I	ug/L	P424892	
		Cobalt	0.143		ug/L	P424892	
		Copper	1.97		ug/L	P424892	
		Lead	0.20	U	ug/L	P424892	
		Manganese	14.9		ug/L	P424892	
		Molybdenum	1.86		ug/L	P424892	
		Nickel	1.6	I	ug/L	P424892	
		Selenium	0.25	I	ug/L	P424892	
		Silver	0.010	U	ug/L	P424892	
		Thallium	0.10	U	ug/L	P424892	
	SM 2340 B-2011	Hardness	358		mg/L	P424892	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: fb

Collection Date/Time: 01/19/2023 11:10

Field ID: FB_01192023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382117	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P424808	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P424818	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P425173	
		Sulfate	0.20	U	mg SO4/L	P425175	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P425184	
	SM 2540 C-2015	TDS	15	U	mg/L	P425331	
	SM 2540 D-2015	TSS	2	U	mg/L	P425212	
2382118	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P425188	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P425410	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P424999	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P425090	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P424980	
2382138	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P425085	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P424948	
		Acesulfame K	0.10	U	ug/L	P424718	
		2,4,5-T	0.0040	U	ug/L	P424948	
		AMPA	0.10	U	ug/L	P424718	
		Acetaminophen	0.0080	U	ug/L	P424948	
		Acetamiprid	0.0020	U	ug/L	P424948	
		Endothall	0.25	U	ug/L	P424718	
		Glufosinate	0.10	U	ug/L	P424718	
		Glyphosate	0.10	U	ug/L	P424718	
		Afidopyropen	0.0020	U	ug/L	P424948	
		Bentazon	8.0E-04	U	ug/L	P424948	
		Sucralose	0.010	U	ug/L	P424718	
		Benzovindiflupyr	0.0020	U	ug/L	P424948	
		Carbamazepine	8.0E-04	U	ug/L	P424948	
		Clothianidin	0.0020	U	ug/L	P424948	
		Dinotefuran	0.0020	U	ug/L	P424948	
		Diuron	0.0020	U	ug/L	P424948	
		Fenuron	0.032	U	ug/L	P424948	
		Fluridone	8.0E-04	U	ug/L	P424948	
		Imazapyr	0.0040	U	ug/L	P424948	
		Hydrocodone	0.0020	U	ug/L	P424948	
		Ibuprofen	0.080	U	ug/L	P424948	
		Imidacloprid	0.0020	U	ug/L	P424948	
		Linuron	0.0040	U	ug/L	P424948	
		Mandestrobin	0.0020	U	ug/L	P424948	
		MCPP	0.0020	U	ug/L	P424948	MS
		Naproxen	0.0080	UJ	ug/L	P424948	CCV
		Primidone	0.0040	U	ug/L	P424948	
		Pyraclostrobin	0.0020	U	ug/L	P424948	
		Silvex	0.0040	U	ug/L	P424948	
		Thiamethoxam	0.0020	U	ug/L	P424948	

Field ID: FB_01192023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2382138	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P424948	
		Triclopyr	0.0040	U	ug/L	P424948	
2382142	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P424892	
		Chromium	1.0	U	ug/L	P424892	
		Iron	30	U	ug/L	P424892	
		Magnesium	0.040	U	mg/L	P424892	
		Potassium	0.30	U	mg/L	P424892	
		Sodium	0.50	U	mg/L	P424892	
		Strontium	2.0	U	ug/L	P424892	
		Tin	3.0	U	ug/L	P424892	
		Titanium	0.75	U	ug/L	P424892	
		Vanadium	2.0	U	ug/L	P424892	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P424892	
		Aluminum	5.0	U	ug/L	P424892	
		Antimony	0.050	U	ug/L	P424892	
		Arsenic	0.050	U	ug/L	P424892	
		Barium	0.20	U	ug/L	P424892	
		Beryllium	0.010	U	ug/L	P424892	
		Boron	2.0	U	ug/L	P424892	
		Cadmium	0.020	U	ug/L	P424892	
		Cobalt	0.020	U	ug/L	P424892	
		Copper	0.40	U	ug/L	P424892	
		Lead	0.20	U	ug/L	P424892	
		Manganese	0.10	U	ug/L	P424892	
		Molybdenum	0.15	U	ug/L	P424892	
		Nickel	0.50	U	ug/L	P424892	
		Selenium	0.20	U	ug/L	P424892	
		Silver	0.010	U	ug/L	P424892	
		Thallium	0.10	U	ug/L	P424892	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P424807

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P424808

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424818

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P424892

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/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: P424892

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425173

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425175

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425410

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424999

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425090

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424980

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

Reference Method: EPA 8270E
Batch ID: P424717

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	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424717

Component	Result	Code	Units
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
Kepone	5.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P424717

Component	Result	Code	Units
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
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 8270E

Batch ID: P425033

Component	Result	Code	Units
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276

Batch ID: P424717

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P424718

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

Reference Method: EPA 8321B

Batch ID: P424846

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P424948

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P424948

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P425184

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

Reference Method: SM 2540 C-2015

Batch ID: P425331

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P425212

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P425188

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P425085

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P424807

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P424808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424818

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P424892

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Chromium	100		P	85 - 115
Iron	104		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	104		P	85 - 115
Sodium	104		P	85 - 115
Strontium	101		P	85 - 115
Tin	105		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	100		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424892

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.0		P	85 - 115
Antimony	94.5		P	85 - 115
Arsenic	98.5		P	85 - 115
Barium	97.8		P	85 - 115
Beryllium	87.8		P	85 - 115
Boron	104		P	85 - 115
Cadmium	100		P	85 - 115
Cobalt	91.9		P	85 - 115
Copper	94.9		P	85 - 115
Lead	93.1		P	85 - 115
Manganese	97.0		P	85 - 115
Molybdenum	92.2		P	85 - 115
Nickel	95.0		P	85 - 115
Selenium	95.6		P	85 - 115
Silver	96.4		P	85 - 115
Thallium	96.4		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425173

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425175

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425410

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: P424999

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425090

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424980

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

Reference Method: EPA 8270E
Batch ID: P424717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.5		P	10 - 92.0
Alpha-BHC	80.1		P	75 - 107
Alpha-Chlordane	78.1		P	50 - 108
Beta-BHC	88.8		P	36 - 138
Beta-Cyfluthrin	73.5		P	20 - 161
Bifenthrin	66.9		P	10 - 119
Carbophenothion	66.1		P	19 - 94.0
Chlorothalonil	87.1		P	26 - 186
Cis-Nonachlor	53.0		P	42 - 119
Cypermethrin	64.3		P	22 - 150
Dacthal	80.1		P	72 - 119
DDD-p,p'	75.9		P	45 - 107
DDE-p,p'	69.8		P	48 - 106
DDT-p,p'	65.9		P	48 - 110
Delta-BHC	102		P	54 - 140
Deltamethrin	103		P	22 - 189

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P424717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dichlobenil	65.2		P	36 - 117
Dicofol	54.4		P	46 - 155
Dieldrin	72.3		P	54 - 110
Endosulfan I	73.8		P	59 - 105
Endosulfan II	82.0		P	51 - 118
Endosulfan Sulfate	100		P	57 - 121
Endrin	75.8		P	10 - 120
Endrin Aldehyde	24.2		F	34 - 118
Endrin Ketone	148		P	69 - 177
Esfenvalerate	91.5		P	23 - 168
Ethalfuralin	65.9		P	49 - 99.0
Fenpropathrin	74.2		P	34 - 117
Gamma-BHC	79.3		P	72 - 117
Gamma-Chlordane	78.9		P	43 - 106
Heptachlor	65.9		P	41 - 98.0
Heptachlor Epoxide	72.7		P	57 - 106
Hexachlorobenzene	68.4		P	36 - 99.0
Kepone	153		P	16 - 215
Lambda-Cyhalothrin	63.5		P	21 - 177
Methoprene	63.6		P	10 - 119
Methoxychlor	84.7		P	60 - 112
MGK-264	77.3		P	26 - 122
Mirex	58.6		P	10 - 169
Oxychlordane	71.0		P	43 - 105
Permethrin	73.9		P	24 - 148
Phenothrin	56.7		P	10 - 106
Piperonyl Butoxide	138		P	10 - 139
Prallethrin	80.8		P	17 - 109
Tau-Fluvalinate	78.4		P	13 - 131
Tetramethrin	100		P	10 - 132
Trans-Nonachlor	68.5		P	44 - 106
Triclosan Methyl	88.2		P	59 - 109
Trifluralin	68.8		P	44 - 101

Reference Method: EPA 8270E
Batch ID: P425033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	97.3	101	P/P	48 - 112
PCB-1260	109	117	P/P	44 - 118

Reference Method: EPA 8276
Batch ID: P424717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.1		P	61 - 116
Toxaphene	99.3		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P424718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P424718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	97.0		P	40 - 150
AMPA	100		P	40 - 150
Endothall	93.2		P	40 - 150
Glufosinate	98.1		P	40 - 150
Glyphosate	99.5		P	40 - 150
Sucralose	91.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P424846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	80.2		P	40 - 150
2,4,5-T	68.8		P	40 - 150
Acetaminophen	80.2		P	30 - 150
Acetamiprid	90.9		P	40 - 150
Afidopyropen	55.5		P	30 - 150
Bentazon	74.9		P	30 - 150
Benzovindiflupyr	81.4		P	40 - 150
Carbamazepine	68.5		P	40 - 150
Clothianidin	93.5		P	40 - 150
Dinotefuran	97.8		P	40 - 150
Diuron	67.5		P	40 - 150
Fenuron	91.5		P	40 - 150
Fluridone	75.0		P	40 - 150
Hydrocodone	108		P	40 - 150
Ibuprofen	86.6		P	40 - 150
Imazapyr	106		P	40 - 150
Imidacloprid	90.0		P	40 - 150
Linuron	71.3		P	40 - 150
Mandestrobin	80.1		P	40 - 150
MCPP	89.1		P	40 - 150
Naproxen	85.1		P	40 - 150
Primidone	111		P	40 - 150
Pyraclostrobin	59.8		P	40 - 150
Silvex	61.3		P	40 - 150
Thiamethoxam	94.9		P	40 - 150
Tolfenpyrad	42.7		P	30 - 150
Triclopyr	65.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P424948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	87.4		P	40 - 150
2,4,5-T	75.7		P	40 - 150
Acetaminophen	90.7		P	30 - 150
Acetamiprid	81.3		P	40 - 150
Afidopyropen	70.8		P	30 - 150
Bentazon	84.1		P	30 - 150
Benzovindiflupyr	80.3		P	40 - 150
Carbamazepine	84.5		P	40 - 150
Clothianidin	98.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P424948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dinotefuran	97.5		P	40 - 150
Diuron	70.7		P	40 - 150
Fenuron	100		P	40 - 150
Fluridone	64.2		P	40 - 150
Hydrocodone	110		P	40 - 150
Ibuprofen	64.7		P	40 - 150
Imazapyr	94.2		P	40 - 150
Imidacloprid	82.7		P	40 - 150
Linuron	66.1		P	40 - 150
Mandestrobin	89.9		P	40 - 150
MCPP	111		P	40 - 150
Naproxen	67.5		P	40 - 150
Primidone	108		P	40 - 150
Pyraclostrobin	72.4		P	40 - 150
Silvex	79.8		P	40 - 150
Thiamethoxam	103		P	40 - 150
Tolfenpyrad	44.1		P	30 - 150
Triclopyr	79.3		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P425184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.6		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P425331

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.9		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P425212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.0		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P425188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P425085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	104		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P424892

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382005	Calcium	104		P	80 - 120
2382005	Chromium	99.7	102	P/P	80 - 120
2382005	Iron	106	107	P/P	80 - 120
2382005	Magnesium	103	105	P/P	80 - 120
2382005	Potassium	101	103	P/P	80 - 120
2382005	Sodium	103		P	80 - 120
2382005	Strontium	101	102	P/P	80 - 120
2382005	Tin	104	105	P/P	80 - 120
2382005	Titanium	101	103	P/P	80 - 120
2382005	Vanadium	102	104	P/P	80 - 120
2382005	Zinc	98.5	101	P/P	80 - 120
2382030	Calcium	104		P	80 - 120
2382030	Chromium	100		P	80 - 120
2382030	Iron	105		P	80 - 120
2382030	Magnesium	106		P	80 - 120
2382030	Potassium	103		P	80 - 120
2382030	Sodium	104		P	80 - 120
2382030	Strontium	101		P	80 - 120
2382030	Tin	104		P	80 - 120
2382030	Titanium	102		P	80 - 120
2382030	Vanadium	100		P	80 - 120
2382030	Zinc	95.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P424892

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382005	Aluminum	96.8	100	P/P	80 - 120
2382005	Antimony	97.7	98.5	P/P	80 - 120
2382005	Arsenic	102	104	P/P	80 - 120
2382005	Barium	100	101	P/P	80 - 120
2382005	Beryllium	93.6	93.5	P/P	80 - 120
2382005	Boron	97.4	101	P/P	80 - 120
2382005	Cadmium	102	102	P/P	80 - 120
2382005	Cobalt	93.4	95.6	P/P	80 - 120
2382005	Copper	95.7	96.9	P/P	80 - 120
2382005	Lead	95.0	97.2	P/P	80 - 120
2382005	Manganese	94.8	97.5	P/P	80 - 120
2382005	Molybdenum	94.3	96.9	P/P	80 - 120
2382005	Nickel	98.0	99.0	P/P	80 - 120
2382005	Selenium	98.9	99.8	P/P	80 - 120
2382005	Silver	94.4	95.7	P/P	80 - 120
2382005	Thallium	99.4	101	P/P	80 - 120
2382030	Aluminum	102		P	80 - 120
2382030	Antimony	98.1		P	80 - 120
2382030	Arsenic	100		P	80 - 120
2382030	Barium	104		P	80 - 120
2382030	Beryllium	97.5		P	80 - 120
2382030	Boron	107		P	80 - 120
2382030	Cadmium	103		P	80 - 120
2382030	Cobalt	95.2		P	80 - 120
2382030	Copper	99.2		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424892

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382030	Lead	96.3		P	80 - 120
2382030	Manganese	105		P	80 - 120
2382030	Molybdenum	95.1		P	80 - 120
2382030	Nickel	100		P	80 - 120
2382030	Selenium	97.7		P	80 - 120
2382030	Silver	98.5		P	80 - 120
2382030	Thallium	98.5		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382066	Chloride	93.3		P	90 - 110
2382155	Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425175

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382066	Sulfate	92.2		P	90 - 110
2382155	Sulfate	96.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382103	Ammonia-N	98.0	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382103	Kjeldahl Nitrogen	94.8	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382103	NO2NO3-N	98.9	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382116	Total-P	105	108	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P424717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381752	Aldrin	44.7	46.4	P/P	20 - 82.0
2381752	Alpha-BHC	79.4	84.9	P/P	71 - 109

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P424717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381752	Alpha-Chlordane	71.1	76.9	P/P	42 - 106
2381752	Beta-BHC	78.0	77.8	P/P	69 - 180
2381752	Beta-Cyfluthrin	85.4	90.6	P/P	18 - 175
2381752	Bifenthrin	79.9	73.1	P/P	21 - 128
2381752	Carbophenothion	63.6	65.2	P/P	10 - 126
2381752	Chlorothalonil	107	98.4	P/P	10 - 300
2381752	Cis-Nonachlor	51.3	46.1	P/P	34 - 106
2381752	Cypermethrin	69.0	72.2	P/P	22 - 158
2381752	Dacthal	72.9	74.6	P/P	54 - 116
2381752	DDD-p,p'	69.2	74.4	P/P	34 - 107
2381752	DDE-p,p'	64.1	66.8	P/P	33 - 110
2381752	DDT-p,p'	60.4	61.5	P/P	50 - 122
2381752	Delta-BHC	88.9	91.9	P/P	77 - 193
2381752	Deltamethrin	117	118	P/P	10 - 195
2381752	Dichlobenil	50.5	54.1	P/P	25 - 113
2381752	Dicofol	60.3	60.2	P/P	38 - 247
2381752	Dieldrin	67.7	69.9	P/P	45 - 118
2381752	Endosulfan I	60.9	62.2	P/P	51 - 106
2381752	Endosulfan II	70.8	74.0	P/P	37 - 122
2381752	Endosulfan Sulfate	97.3	90.1	P/P	43 - 132
2381752	Endrin	68.1	71.2	P/P	29 - 101
2381752	Endrin Aldehyde	51.0	45.7	P/P	19 - 110
2381752	Endrin Ketone	89.6	137	P/P	60 - 140
2381752	Esfenvalerate	117	118	P/P	26 - 199
2381752	Ethalfuralin	59.8	60.4	P/P	45 - 99.0
2381752	Fenpropathrin	68.6	76.5	P/P	35 - 120
2381752	Gamma-BHC	69.3	72.3	P/P	63 - 128
2381752	Gamma-Chlordane	75.0	75.6	P/P	40 - 104
2381752	Heptachlor	55.1	57.6	P/P	36 - 97.0
2381752	Heptachlor Epoxide	61.5	65.5	P/P	49 - 184
2381752	Hexachlorobenzene	59.7	61.4	P/P	39 - 96.0
2381752	Kepone	134	139	P/P	10 - 217
2381752	Lambda-Cyhalothrin	80.3	81.8	P/P	21 - 193
2381752	Methoprene	74.1	77.6	P/P	20 - 106
2381752	Methoxychlor	88.3	80.2	P/P	53 - 118
2381752	MGK-264	73.4	76.3	P/P	40 - 118
2381752	Mirex	50.9	54.3	P/P	26 - 92.0
2381752	Oxychlordane	60.0	65.2	P/P	44 - 99.0
2381752	Permethrin	68.4	72.5	P/P	33 - 182
2381752	Phenothrin	68.1	72.7	P/P	10 - 129
2381752	Piperonyl Butoxide	87.7	90.3	P/P	10 - 211
2381752	Prallethrin	88.2	88.0	P/P	24 - 113
2381752	Tau-Fluvalinate	107	111	P/P	14 - 149
2381752	Tetramethrin	107	103	P/P	17 - 151
2381752	Trans-Nonachlor	60.9	60.9	P/P	42 - 102
2381752	Triclosan Methyl	75.6	77.6	P/P	48 - 108
2381752	Trifluralin	61.8	60.1	P/P	47 - 96.0

Reference Method: EPA 8270E
Batch ID: P425033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P425033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382133	PCB-1016	87.5		P	46 - 111
2382133	PCB-1260	98.7		P	45 - 114

Reference Method: EPA 8276

Batch ID: P424717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381365	Chlordane	91.9	93.2	P/P	53 - 126
2381365	Toxaphene	112	112	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P424718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382026	Acesulfame K	97.9	98.3	P/P	40 - 150
2382026	AMPA	115	106	P/P	40 - 150
2382026	Endothall	95.0	93.9	P/P	40 - 150
2382026	Glufosinate	92.0	94.8	P/P	40 - 150
2382026	Glyphosate	106	84.5	P/P	40 - 150
2382026	Sucralose	90.7	93.1	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P424846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2381541	2,4-D	95.4	83.9	P/P	40 - 150
2381541	2,4,5-T	94.8	103	P/P	40 - 150
2381541	Acetaminophen	89.6	98.5	P/P	30 - 150
2381541	Acetamiprid	99.4	93.1	P/P	40 - 150
2381541	Afidopyropen	78.8	76.7	P/P	30 - 150
2381541	Benzovindiflupyr	72.3	83.6	P/P	40 - 150
2381541	Carbamazepine	56.8	56.9	P/P	40 - 150
2381541	Clothianidin	105	109	P/P	40 - 150
2381541	Dinotefuran	120	126	P/P	40 - 150
2381541	Diuron	42.3	49.7	P/P	40 - 150
2381541	Fenuron	69.7	74.8	P/P	40 - 150
2381541	Fluridone	68.9	73.0	P/P	40 - 150
2381541	Hydrocodone	106	107	P/P	40 - 150
2381541	Ibuprofen	56.8	72.3	P/P	40 - 150
2381541	Imidacloprid	158	168	F/F	40 - 150
2381541	Linuron	81.9	94.5	P/P	40 - 150
2381541	Mandestrobin	78.6	81.9	P/P	40 - 150
2381541	MCPP	102	108	P/P	40 - 150
2381541	Naproxen	96.3	82.9	P/P	40 - 150
2381541	Primidone	119	123	P/P	40 - 150
2381541	Pyraclostrobin	76.0	76.9	P/P	40 - 150
2381541	Silvex	74.5	86.3	P/P	40 - 150
2381541	Thiamethoxam	110	112	P/P	40 - 150
2381541	Tolfenpyrad	55.2	56.1	P/P	30 - 150
2381541	Triclopyr	96.9	95.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P424948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382256	2,4-D	98.2	85.5	P/P	40 - 150
2382256	2,4,5-T	101	92.0	P/P	40 - 150
2382256	Acetaminophen	110	100	P/P	30 - 150
2382256	Acetamiprid	101	85.1	P/P	40 - 150
2382256	Afidopyropen	85.0	67.4	P/P	30 - 150
2382256	Bentazon	84.3	79.5	P/P	30 - 150
2382256	Benzovindiflupyr	92.3	85.9	P/P	40 - 150
2382256	Carbamazepine	89.4	82.9	P/P	40 - 150
2382256	Clothianidin	130	104	P/P	40 - 150
2382256	Dinotefuran	117	110	P/P	40 - 150
2382256	Diuron	81.0	79.7	P/P	40 - 150
2382256	Fenuron	120	105	P/P	40 - 150
2382256	Fluridone	79.7	73.3	P/P	40 - 150
2382256	Hydrocodone	133	110	P/P	40 - 150
2382256	Ibuprofen	94.4	85.8	P/P	40 - 150
2382256	Imazapyr	113	102	P/P	40 - 150
2382256	Imidacloprid	111	109	P/P	40 - 150
2382256	Linuron	80.4	72.2	P/P	40 - 150
2382256	Mandestrobin	98.4	98.5	P/P	40 - 150
2382256	MCCP	157	141	F/P	40 - 150
2382256	Naproxen	71.3	64.9	P/P	40 - 150
2382256	Primidone	124	119	P/P	40 - 150
2382256	Pyraclostrobin	93.1	83.4	P/P	40 - 150
2382256	Silvex	89.6	78.0	P/P	40 - 150
2382256	Thiamethoxam	103	103	P/P	40 - 150
2382256	Tolfenpyrad	55.3	48.4	P/P	30 - 150
2382256	Triclopyr	96.7	85.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P425188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382077	Fluoride	101	100	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P425085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2382116	Organic Carbon	102	104	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P424807

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382011	Color (true)	1.30	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P424808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382201	Color (true)	2.56	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P424818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382112	Turbidity	1.07	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P424892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382005	Calcium	0.181	Spike	P	0 - 20
2382005	Chromium	1.98	Spike	P	0 - 20
2382005	Iron	0.602	Spike	P	0 - 20
2382005	Magnesium	0.592	Spike	P	0 - 20
2382005	Potassium	1.34	Spike	P	0 - 20
2382005	Sodium	1.50	Spike	P	0 - 20
2382005	Strontium	1.16	Spike	P	0 - 20
2382005	Tin	0.882	Spike	P	0 - 20
2382005	Titanium	1.86	Spike	P	0 - 20
2382005	Vanadium	2.32	Spike	P	0 - 20
2382005	Zinc	2.72	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382005	Aluminum	3.16	Spike	P	0 - 20
2382005	Antimony	0.826	Spike	P	0 - 20
2382005	Arsenic	1.36	Spike	P	0 - 20
2382005	Barium	0.954	Spike	P	0 - 20
2382005	Beryllium	0.104	Spike	P	0 - 20
2382005	Boron	2.73	Spike	P	0 - 20
2382005	Cadmium	0.743	Spike	P	0 - 20
2382005	Cobalt	2.34	Spike	P	0 - 20
2382005	Copper	1.15	Spike	P	0 - 20
2382005	Lead	2.24	Spike	P	0 - 20
2382005	Manganese	1.69	Spike	P	0 - 20
2382005	Molybdenum	2.01	Spike	P	0 - 20
2382005	Nickel	0.974	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P424892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382005	Selenium	0.986	Spike	P	0 - 20
2382005	Silver	1.33	Spike	P	0 - 20
2382005	Thallium	2.03	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382066	Chloride	3.08	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P425175

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382066	Sulfate	2.81	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382103	Ammonia-N	0.611	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P424999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382103	Kjeldahl Nitrogen	8.36	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382103	NO2NO3-N	0.866	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382116	Total-P	2.21	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P424717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P424717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381752	Aldrin	3.66	Spike	P	0 - 41
2381752	Alpha-BHC	6.76	Spike	P	0 - 25
2381752	Alpha-Chlordane	7.86	Spike	P	0 - 33
2381752	Beta-BHC	0.281	Spike	P	0 - 36
2381752	Beta-Cyfluthrin	5.85	Spike	P	0 - 42
2381752	Bifenthrin	8.87	Spike	P	0 - 53
2381752	Carbophenothion	2.50	Spike	P	0 - 49
2381752	Chlorothalonil	8.35	Spike	P	0 - 71
2381752	Cis-Nonachlor	10.5	Spike	P	0 - 29
2381752	Cypermethrin	4.60	Spike	P	0 - 40
2381752	Dacthal	2.23	Spike	P	0 - 26
2381752	DDD-p,p'	7.28	Spike	P	0 - 39
2381752	DDE-p,p'	4.07	Spike	P	0 - 33
2381752	DDT-p,p'	1.76	Spike	P	0 - 40
2381752	Delta-BHC	3.27	Spike	P	0 - 37
2381752	Deltamethrin	1.54	Spike	P	0 - 100
2381752	Dichlobenil	6.82	Spike	P	0 - 40
2381752	Dicofol	0.124	Spike	P	0 - 31
2381752	Dieldrin	3.03	Spike	P	0 - 27
2381752	Endosulfan I	2.12	Spike	P	0 - 23
2381752	Endosulfan II	4.41	Spike	P	0 - 28
2381752	Endosulfan Sulfate	7.71	Spike	P	0 - 38
2381752	Endrin	4.50	Spike	P	0 - 63
2381752	Endrin Aldehyde	11.0	Spike	P	0 - 60
2381752	Endrin Ketone	42.0	Spike	F	0 - 37
2381752	Esfenvalerate	1.02	Spike	P	0 - 52
2381752	Ethalfuralin	0.967	Spike	P	0 - 23
2381752	Fenpropathrin	10.9	Spike	P	0 - 32
2381752	Gamma-BHC	4.27	Spike	P	0 - 17
2381752	Gamma-Chlordane	0.810	Spike	P	0 - 40
2381752	Heptachlor	4.43	Spike	P	0 - 29
2381752	Heptachlor Epoxide	6.29	Spike	P	0 - 25
2381752	Hexachlorobenzene	2.70	Spike	P	0 - 36
2381752	Kepone	3.92	Spike	P	0 - 93
2381752	Lambda-Cyhalothrin	1.77	Spike	P	0 - 55
2381752	Methoprene	4.72	Spike	P	0 - 53
2381752	Methoxychlor	9.63	Spike	P	0 - 29
2381752	MGK-264	3.92	Spike	P	0 - 35
2381752	Mirex	6.47	Spike	P	0 - 46
2381752	Oxychlordane	8.38	Spike	P	0 - 29
2381752	Permethrin	5.82	Spike	P	0 - 44
2381752	Phenothrin	6.46	Spike	P	0 - 56
2381752	Piperonyl Butoxide	2.93	Spike	P	0 - 100
2381752	Prallethrin	0.159	Spike	P	0 - 42
2381752	Tau-Fluvalinate	4.13	Spike	P	0 - 54
2381752	Tetramethrin	4.12	Spike	P	0 - 51
2381752	Trans-Nonachlor	0.0590	Spike	P	0 - 37
2381752	Triclosan Methyl	2.55	Spike	P	0 - 31
2381752	Trifluralin	2.69	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P425033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	PCB-1016	3.97	LCS	P	0 - 24
LFB	PCB-1260	7.10	LCS	P	0 - 29

Reference Method: EPA 8276
Batch ID: P424717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381365	Chlordane	1.33	Spike	P	0 - 25
2381365	Toxaphene	0.245	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P424718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382026	Acesulfame K	0.448	Spike	P	0 - 30
2382026	AMPA	8.17	Spike	P	0 - 30
2382026	Endothall	1.18	Spike	P	0 - 30
2382026	Glufosinate	3.03	Spike	P	0 - 30
2382026	Glyphosate	22.4	Spike	P	0 - 30
2382026	Sucralose	2.52	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P424846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381541	2,4-D	11.9	Spike	P	0 - 30
2381541	2,4,5-T	8.74	Spike	P	0 - 30
2381541	Acetaminophen	9.43	Spike	P	0 - 30
2381541	Acetamiprid	6.55	Spike	P	0 - 30
2381541	Afidopyropen	2.74	Spike	P	0 - 30
2381541	Bentazon	10.6	Spike	P	0 - 30
2381541	Benzovindiflupyr	14.5	Spike	P	0 - 30
2381541	Carbamazepine	0.138	Spike	P	0 - 30
2381541	Clothianidin	4.13	Spike	P	0 - 30
2381541	Dinotefuran	5.30	Spike	P	0 - 30
2381541	Diuron	9.24	Spike	P	0 - 30
2381541	Fenuron	7.16	Spike	P	0 - 30
2381541	Fluridone	3.18	Spike	P	0 - 30
2381541	Hydrocodone	1.59	Spike	P	0 - 30
2381541	Ibuprofen	24.1	Spike	P	0 - 30
2381541	Imazapyr	9.40	Spike	P	0 - 30
2381541	Imidacloprid	5.78	Spike	P	0 - 30
2381541	Linuron	14.3	Spike	P	0 - 30
2381541	Mandestrobin	4.13	Spike	P	0 - 30
2381541	MCP	6.01	Spike	P	0 - 30
2381541	Naproxen	14.9	Spike	P	0 - 30
2381541	Primidone	3.17	Spike	P	0 - 30
2381541	Pyraclostrobin	1.15	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P424846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2381541	Silvex	14.7	Spike	P	0 - 30
2381541	Thiamethoxam	1.83	Spike	P	0 - 30
2381541	Tolfenpyrad	1.59	Spike	P	0 - 30
2381541	Triclopyr	1.87	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P424948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382256	2,4-D	13.1	Spike	P	0 - 30
2382256	2,4,5-T	8.87	Spike	P	0 - 30
2382256	Acetaminophen	9.32	Spike	P	0 - 30
2382256	Acetamiprid	16.8	Spike	P	0 - 30
2382256	Afidopyropen	23.0	Spike	P	0 - 30
2382256	Bentazon	5.90	Spike	P	0 - 30
2382256	Benzovindiflupyr	7.17	Spike	P	0 - 30
2382256	Carbamazepine	7.58	Spike	P	0 - 30
2382256	Clothianidin	22.0	Spike	P	0 - 30
2382256	Dinotefuran	5.94	Spike	P	0 - 30
2382256	Diuron	1.71	Spike	P	0 - 30
2382256	Fenuron	12.7	Spike	P	0 - 30
2382256	Fluridone	8.40	Spike	P	0 - 30
2382256	Hydrocodone	18.9	Spike	P	0 - 30
2382256	Ibuprofen	9.52	Spike	P	0 - 30
2382256	Imazapyr	10.0	Spike	P	0 - 30
2382256	Imidacloprid	1.78	Spike	P	0 - 30
2382256	Linuron	10.7	Spike	P	0 - 30
2382256	Mandestrobin	0.0787	Spike	P	0 - 30
2382256	MCPP	10.6	Spike	P	0 - 30
2382256	Naproxen	9.41	Spike	P	0 - 30
2382256	Primidone	4.14	Spike	P	0 - 30
2382256	Pyraclostrobin	11.0	Spike	P	0 - 30
2382256	Silvex	13.7	Spike	P	0 - 30
2382256	Thiamethoxam	0.126	Spike	P	0 - 30
2382256	Tolfenpyrad	13.3	Spike	P	0 - 30
2382256	Triclopyr	12.1	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P425184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382077	Total Alkalinity	0.401	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P425331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382201	TDS	6.71	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P425188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382077	Fluoride	1.00	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P425085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2382116	Organic Carbon	1.00	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2382133
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	88.7	P	29 - 130
EPA 8270E	Decachlorobiphenyl	73.0	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	60.9	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	63.7	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	64.7	P	30 - 101
EPA 8276	PCNB	84.7	P	48 - 121

Lab Sample ID: 2382134
Field Sample ID: G3SD0237

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	43.8	P	30 - 160
EPA 8321B	Diuron-d6	42.4	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	61.7	P	30 - 160
EPA 8321B	Primidone-d5	91.2	P	30 - 160
EPA 8321B	Sucralose-d6	79.3	P	30 - 160

Lab Sample ID: 2382135
Field Sample ID: G3SD0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.3	P	30 - 160
EPA 8321B	Diuron-d6	62.0	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.2	P	30 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Sucralose-d6	85.1	P	30 - 160

Lab Sample ID: 2382136
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.7	P	30 - 160
EPA 8321B	Diuron-d6	57.7	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.9	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	81.6	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2382137
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.7	P	30 - 160
EPA 8321B	Diuron-d6	59.5	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.1	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	81.9	P	30 - 160

Lab Sample ID: 2382138
Field Sample ID: FB_01192023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	109	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.3	P	30 - 160
EPA 8321B	Diuron-d6	94.3	P	30 - 160
EPA 8321B	Endothall-d6	94.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	30 - 160
EPA 8321B	Ibuprofen-d3	113	P	30 - 160
EPA 8321B	Primidone-d5	127	P	30 - 160
EPA 8321B	Sucralose-d6	90.8	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A117009

Included Lab Sample IDs: 2382115, 2382117

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 110
Color (true)	102	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117014

Included Lab Sample IDs: 2382115, 2382117

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117051

Included Lab Sample IDs: 2382115, 2382117

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	98.9	P/P	90 - 110
Sulfate	97.0	97.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A117080

Included Lab Sample IDs: 2382134, 2382135, 2382136, 2382137, 2382138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	91.7	92.8	P/P	60 - 160
Sucralose	86.9	88.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117084

Included Lab Sample IDs: 2382134, 2382135, 2382136, 2382137, 2382138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	92.5	99.2	P/P	60 - 160
Endothall	91.6	93.6	P/P	60 - 160
Glufosinate	78.6	95.6	P/P	60 - 160
Glyphosate	91.7	98.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117088

Included Lab Sample IDs: 2382134

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	101	P/P	50 - 150
2,4,5-T	121	112	P/P	50 - 150
Acetaminophen	109	92.3	P/P	60 - 160
Acetamiprid	106	131	P/P	50 - 150
Afidopyropen	88.9	95.0	P/P	50 - 150
Bentazon	130	121	P/P	50 - 160
Benzovindiflupyr	114	110	P/P	50 - 150
Carbamazepine	109	96.8	P/P	60 - 150
Clothianidin	124	106	P/P	60 - 150
Dinotefuran	117	116	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A117088
Included Lab Sample IDs: 2382134

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	116	109	P/P	60 - 160
Fenuron	109	101	P/P	60 - 150
Fluridone	102	104	P/P	60 - 160
Hydrocodone	106	124	P/P	60 - 150
Ibuprofen	99.1	72.4	P/P	50 - 160
Imazapyr	92.0	123	P/P	50 - 150
Imidacloprid	114	109	P/P	60 - 150
Linuron	106	107	P/P	60 - 150
Mandestrobin	94.8	107	P/P	50 - 150
MCPP	122	99.7	P/P	50 - 150
Naproxen	101	111	P/P	50 - 160
Primidone	98.3	142	P/P	60 - 150
Pyraclostrobin	112	113	P/P	60 - 150
Silvex	125	102	P/P	50 - 150
Thiamethoxam	90.6	129	P/P	50 - 150
Tolfenpyrad	108	112	P/P	60 - 150
Triclopyr	124	106	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A117106
Included Lab Sample IDs: 2382133

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A117108
Included Lab Sample IDs: 2382116

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A117119
Included Lab Sample IDs: 2382118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A117129
Included Lab Sample IDs: 2382135, 2382136, 2382137, 2382138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	103	P/P	50 - 150
2,4-D	110	100	P/P	50 - 150
2,4,5-T	108	110	P/P	50 - 150
2,4,5-T	110	105	P/P	50 - 150
Acetaminophen	114	116	P/P	60 - 160
Acetaminophen	116	114	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A117129

Included Lab Sample IDs: 2382135, 2382136, 2382137, 2382138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetamiprid	115	116	P/P	50 - 150
Acetamiprid	116	116	P/P	50 - 150
Afidopyropen	108	92.9	P/P	50 - 150
Afidopyropen	92.9	84.1	P/P	50 - 150
Bentazon	102	114	P/P	50 - 160
Bentazon	114	108	P/P	50 - 160
Benzovindiflupyr	109	116	P/P	50 - 150
Benzovindiflupyr	116	105	P/P	50 - 150
Carbamazepine	104	108	P/P	60 - 150
Carbamazepine	93.5	104	P/P	60 - 150
Clothianidin	115	118	P/P	60 - 150
Clothianidin	131	115	P/P	60 - 150
Dinotefuran	114	116	P/P	50 - 150
Dinotefuran	116	115	P/P	50 - 150
Diuron	113	114	P/P	60 - 160
Diuron	114	110	P/P	60 - 160
Fenuron	112	117	P/P	60 - 150
Fenuron	119	112	P/P	60 - 150
Fluridone	109	99.9	P/P	60 - 160
Fluridone	99.9	110	P/P	60 - 160
Hydrocodone	133	143	P/P	60 - 150
Hydrocodone	143	145	P/P	60 - 150
Ibuprofen	128	120	P/P	50 - 160
Ibuprofen	89.0	128	P/P	50 - 160
Imazapyr	111	117	P/P	50 - 150
Imazapyr	117	116	P/P	50 - 150
Imidacloprid	104	99.8	P/P	60 - 150
Imidacloprid	99.8	100	P/P	60 - 150
Linuron	105	115	P/P	60 - 150
Linuron	115	95.0	P/P	60 - 150
Mandestrobin	106	115	P/P	50 - 150
Mandestrobin	106	106	P/P	50 - 150
MCPP	109	111	P/P	50 - 150
MCPP	111	105	P/P	50 - 150
Naproxen	125	170*	P/F	50 - 160
Naproxen	170*	147	F/P	50 - 160
Primidone	126	129	P/P	60 - 150
Primidone	131	126	P/P	60 - 150
Pyraclostrobin	110	116	P/P	60 - 150
Pyraclostrobin	116	113	P/P	60 - 150
Silvex	111	106	P/P	50 - 150
Silvex	119	111	P/P	50 - 150
Thiamethoxam	126	116	P/P	50 - 150
Thiamethoxam	127	126	P/P	50 - 150
Tolfenpyrad	108	111	P/P	60 - 150
Tolfenpyrad	111	111	P/P	60 - 150
Triclopyr	101	108	P/P	50 - 150
Triclopyr	108	95.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A117136

Included Lab Sample IDs: 2382116, 2382118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	106	106	P/P	90 - 110
Organic Carbon	106	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117138

Included Lab Sample IDs: 2382116, 2382118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117146

Included Lab Sample IDs: 2382133

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.7		P	80 - 120
PCB-1260	101		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A117147

Included Lab Sample IDs: 2382141, 2382142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	104	P/P	90 - 110
Calcium	108	110	P/P	90 - 110
Chromium	102	104	P/P	90 - 110
Chromium	107	108	P/P	90 - 110
Iron	105	105	P/P	90 - 110
Iron	108	107	P/P	90 - 110
Magnesium	105	104	P/P	90 - 110
Magnesium	108	107	P/P	90 - 110
Potassium	104	104	P/P	90 - 110
Potassium	108	106	P/P	90 - 110
Sodium	104	105	P/P	90 - 110
Sodium	109	109	P/P	90 - 110
Strontium	103	104	P/P	90 - 110
Strontium	106	107	P/P	90 - 110
Tin	105	107	P/P	90 - 110
Tin	109	110	P/P	90 - 110
Titanium	102	103	P/P	90 - 110
Titanium	106	106	P/P	90 - 110
Vanadium	101	102	P/P	90 - 110
Vanadium	104	105	P/P	90 - 110
Zinc	105	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117148

Included Lab Sample IDs: 2382116, 2382118

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117148

Included Lab Sample IDs: 2382116, 2382118

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	103	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117156

Included Lab Sample IDs: 2382133

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	105		P	80 - 120
Alpha-BHC	98.4		P	80 - 120
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	100		P	80 - 120
Bifenthrin	103		P	80 - 120
Carbophenothion	105		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	82.0		P	80 - 120
Cypermethrin	116		P	80 - 120
Dacthal	111		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	106		P	80 - 120
DDT-p,p'	98.5		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	97.8		P	80 - 120
Dicofol	83.5		P	80 - 120
Dieldrin	105		P	80 - 120
Endosulfan I	110		P	80 - 120
Endosulfan II	114		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	108		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	113		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfuralin	96.5		P	80 - 120
Fenpropathrin	111		P	80 - 120
Gamma-BHC	108		P	80 - 120
Gamma-Chlordane	112		P	80 - 120
Heptachlor	113		P	80 - 120
Heptachlor Epoxide	108		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	85.5		P	80 - 120
Lambda-Cyhalothrin	111		P	80 - 120
Methoprene	102		P	80 - 120
Methoxychlor	92.8		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	118		P	80 - 120
Oxychlordane	103		P	80 - 120
Permethrin	104		P	80 - 120
Phenothrin	110		P	80 - 120
Piperonyl Butoxide	84.2		P	80 - 120
Prallethrin	98.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117156
Included Lab Sample IDs: 2382133

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	110		P	80 - 120
Triclosan Methyl	113		P	80 - 120
Trifluralin	97.4		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A117167
Included Lab Sample IDs: 2382141

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	99.2	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A117170
Included Lab Sample IDs: 2382141, 2382142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Aluminum	99.0	100	P/P	90 - 110
Antimony	96.2	96.3	P/P	90 - 110
Antimony	98.0	97.3	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Barium	98.3	98.7	P/P	90 - 110
Barium	98.8	99.5	P/P	90 - 110
Boron	103	104	P/P	90 - 110
Boron	99.0	103	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Cadmium	99.7	100	P/P	90 - 110
Cobalt	92.3	93.2	P/P	90 - 110
Cobalt	93.7	94.8	P/P	90 - 110
Copper	96.9	97.1	P/P	90 - 110
Copper	98.0	98.5	P/P	90 - 110
Lead	98.1	97.9	P/P	90 - 110
Lead	98.4	99.1	P/P	90 - 110
Manganese	101	102	P/P	90 - 110
Manganese	99.1	99.1	P/P	90 - 110
Molybdenum	94.0	93.6	P/P	90 - 110
Molybdenum	94.3	93.9	P/P	90 - 110
Nickel	95.9	96.4	P/P	90 - 110
Nickel	97.0	97.9	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Selenium	102	100	P/P	90 - 110
Silver	97.6	98.0	P/P	90 - 110
Silver	99.0	98.2	P/P	90 - 110
Thallium	98.0	98.0	P/P	90 - 110
Thallium	99.0	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A117172

Included Lab Sample IDs: 2382115, 2382117

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.5	96.2	P/P	90 - 110
Total Alkalinity	95.3	94.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A117172

Included Lab Sample IDs: 2382115, 2382117

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117196

Included Lab Sample IDs: 2382141, 2382142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	97.3	98.1	P/P	90 - 110
Beryllium	98.9	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117272

Included Lab Sample IDs: 2382116, 2382118

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

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	100				1.30	
	Color (true)	100				2.56	
EPA 180.1 Rev. 2.0	Turbidity	100				1.07	
EPA 200.7 Rev. 4.4	Calcium	106	104	104			0.181
	Chromium	100	99.7	102	100		1.98
	Iron	104	106	107	105		0.602
	Magnesium	105	103	105	106		0.592
	Potassium	104	101	103	103		1.34
	Sodium	104	103	104			1.50
	Strontium	101	101	102	101		1.16
	Tin	105	104	105	104		0.882
	Titanium	102	101	103	102		1.86
	Vanadium	100	102	104	100		2.32
	Zinc	104	98.5	101	95.4		2.72
EPA 200.8 Rev. 5.4	Aluminum	99.0	96.8	100	102		3.16
	Antimony	94.5	97.7	98.5	98.1		0.826
	Arsenic	98.5	102	104	100		1.36
	Barium	97.8	100	101	104		0.954
	Beryllium	87.8	93.6	93.5	97.5		0.104
	Boron	104	97.4	101	107		2.73
	Cadmium	100	102	102	103		0.743
	Cobalt	91.9	93.4	95.6	95.2		2.34
	Copper	94.9	95.7	96.9	99.2		1.15
	Lead	93.1	95.0	97.2	96.3		2.24
	Manganese	97.0	94.8	97.5	105		1.69
	Molybdenum	92.2	94.3	96.9	95.1		2.01
	Nickel	95.0	98.0	99.0	100		0.974
	Selenium	95.6	98.9	99.8	97.7		0.986
	Silver	96.4	94.4	95.7	98.5		1.33
	Thallium	96.4	99.4	101	98.5		2.03
EPA 300.0 Rev. 2.1	Chloride	102	93.3	97.7		3.08	
	Sulfate	101	92.2	96.8		2.81	
EPA 350.1 Rev. 2.0	Ammonia-N	101	98.0	98.8			0.611
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	94.8	106			8.36
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	98.9	97.9			0.866
EPA 365.1 Rev. 2.0	Total-P	107	105	108			2.21
EPA 8270E	Aldrin	54.5	44.7	46.4			3.66
	Alpha-BHC	80.1	79.4	84.9			6.76
	Alpha-Chlordane	78.1	71.1	76.9			7.86
	Beta-BHC	88.8	78.0	77.8			0.281
	Beta-Cyfluthrin	73.5	85.4	90.6			5.85
	Bifenthrin	66.9	79.9	73.1			8.87
	Carbophenothion	66.1	63.6	65.2			2.50
	Chlorothalonil	87.1	107	98.4			8.35
	Cis-Nonachlor	53.0	51.3	46.1			10.5
	Cypermethrin	64.3	69.0	72.2			4.60
	Dacthal	80.1	72.9	74.6			2.23
	DDD-p,p'	75.9	69.2	74.4			7.28
	DDE-p,p'	69.8	64.1	66.8			4.07
	DDT-p,p'	65.9	60.4	61.5			1.76
	Delta-BHC	102	88.9	91.9			3.27
	Deltamethrin	103	117	118			1.54
	Dichlobenil	65.2	50.5	54.1			6.82
	Dicofol	54.4	60.3	60.2			0.124

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 8270E	Dieldrin	72.3		67.7	69.9			3.03
	Endosulfan I	73.8		60.9	62.2			2.12
	Endosulfan II	82.0		70.8	74.0			4.41
	Endosulfan Sulfate	100		97.3	90.1			7.71
	Endrin	75.8		68.1	71.2			4.50
	Endrin Aldehyde	24.2		51.0	45.7			11.0
	Endrin Ketone	148		89.6	137			42.0
	Esfenvalerate	91.5		117	118			1.02
	Ethalfuralin	65.9		59.8	60.4			0.967
	Fenpropathrin	74.2		68.6	76.5			10.9
	Gamma-BHC	79.3		69.3	72.3			4.27
	Gamma-Chlordane	78.9		75.0	75.6			0.810
	Heptachlor	65.9		55.1	57.6			4.43
	Heptachlor Epoxide	72.7		61.5	65.5			6.29
	Hexachlorobenzene	68.4		59.7	61.4			2.70
	Kepone	153		134	139			3.92
	Lambda-Cyhalothrin	63.5		80.3	81.8			1.77
	Methoprene	63.6		74.1	77.6			4.72
	Methoxychlor	84.7		88.3	80.2			9.63
	MGK-264	77.3		73.4	76.3			3.92
	Mirex	58.6		50.9	54.3			6.47
	Oxychlordane	71.0		60.0	65.2			8.38
	PCB-1016	97.3	101	87.5		3.97		
	PCB-1260	109	117	98.7		7.10		
	Permethrin	73.9		68.4	72.5			5.82
	Phenothrin	56.7		68.1	72.7			6.46
	Piperonyl Butoxide	138		87.7	90.3			2.93
	Prallethrin	80.8		88.2	88.0			0.159
	Tau-Fluvalinate	78.4		107	111			4.13
	Tetramethrin	100		107	103			4.12
	Trans-Nonachlor	68.5		60.9	60.9			0.0590
	Triclosan Methyl	88.2		75.6	77.6			2.55
	Trifluralin	68.8		61.8	60.1			2.69
EPA 8276	Chlordane	91.1		91.9	93.2			1.33
	Toxaphene	99.3		112	112			0.245
EPA 8321B	2,4-D	80.2		95.4	83.9			11.9
	2,4-D	87.4		98.2	85.5			13.1
	2,4,5-T	68.8		94.8	103			8.74
	2,4,5-T	75.7		101	92.0			8.87
	Acesulfame K	97.0		97.9	98.3			0.448
	Acetaminophen	80.2		89.6	98.5			9.43
	Acetaminophen	90.7		110	100			9.32
	Acetamiprid	90.9		99.4	93.1			6.55
	Acetamiprid	81.3		101	85.1			16.8
	Afidopyropen	55.5		78.8	76.7			2.74
	Afidopyropen	70.8		85.0	67.4			23.0
	AMPA	100		115	106			8.17
	Bentazon	74.9						10.6
	Bentazon	84.1		84.3	79.5			5.90
	Benzovindiflupyr	81.4		72.3	83.6			14.5
	Benzovindiflupyr	80.3		92.3	85.9			7.17
	Carbamazepine	68.5		56.8	56.9			0.138
	Carbamazepine	84.5		89.4	82.9			7.58
	Clothianidin	93.5		105	109			4.13

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	
						SMP	MS
EPA 8321B	Clothianidin	98.9	130	104			22.0
	Dinotefuran	97.8	120	126			5.30
	Dinotefuran	97.5	117	110			5.94
	Diuron	67.5	42.3	49.7			9.24
	Diuron	70.7	81.0	79.7			1.71
	Endothall	93.2	95.0	93.9			1.18
	Fenuron	91.5	69.7	74.8			7.16
	Fenuron	100	120	105			12.7
	Fluridone	75.0	68.9	73.0			3.18
	Fluridone	64.2	79.7	73.3			8.40
	Glufosinate	98.1	92.0	94.8			3.03
	Glyphosate	99.5	106	84.5			22.4
	Hydrocodone	108	106	107			1.59
	Hydrocodone	110	133	110			18.9
	Ibuprofen	86.6	56.8	72.3			24.1
	Ibuprofen	64.7	94.4	85.8			9.52
	Imazapyr	106					9.40
	Imazapyr	94.2	113	102			10.0
	Imidacloprid	90.0	158	168			5.78
	Imidacloprid	82.7	111	109			1.78
	Linuron	71.3	81.9	94.5			14.3
	Linuron	66.1	80.4	72.2			10.7
	Mandestrobin	80.1	78.6	81.9			4.13
	Mandestrobin	89.9	98.4	98.5			0.0787
	MCPPP	89.1	102	108			6.01
	MCPPP	111	157	141			10.6
	Naproxen	85.1	96.3	82.9			14.9
	Naproxen	67.5	71.3	64.9			9.41
	Primidone	111	119	123			3.17
	Primidone	108	124	119			4.14
	Pyraclostrobin	59.8	76.0	76.9			1.15
	Pyraclostrobin	72.4	93.1	83.4			11.0
	Silvex	61.3	74.5	86.3			14.7
	Silvex	79.8	89.6	78.0			13.7
	Sucralose	91.7	90.7	93.1			2.52
	Thiamethoxam	94.9	110	112			1.83
	Thiamethoxam	103	103	103			0.126
	Tolfenpyrad	42.7	55.2	56.1			1.59
	Tolfenpyrad	44.1	55.3	48.4			13.3
	Triclopyr	65.5	96.9	95.1			1.87
	Triclopyr	79.3	96.7	85.6			12.1
SM 2320 B-2011	Total Alkalinity	96.6				0.401	
SM 2540 C-2015	TDS	96.9				6.71	
SM 2540 D-2015	TSS	99.0					
SM 4500-F- C-2011	Fluoride	101	101	100			1.00
SM 5310 B-2011	Organic Carbon	104	102	104			1.00

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2382115, 2382117
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2382115, 2382117

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	2382141, 2382142
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2382141, 2382142
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2382115, 2382117
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2382115, 2382117
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2382116, 2382118
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2382116, 2382118
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2382116, 2382118
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2382116, 2382118
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2382133
EPA 8270E	PCBs in water matrices by GC/MS/MS	2382133
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2382133
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2382134, 2382135, 2382136, 2382137, 2382138
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2382115, 2382117
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2382141
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2382115, 2382117
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2382115, 2382117
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2382115, 2382117
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2382116, 2382118

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	01/20/2023			01/20/2023 14:30	Alexis Price	2382115
	01/20/2023			01/20/2023 14:33	Alexis Price	2382117
EPA 180.1 Rev. 2.0	01/20/2023			01/20/2023 15:21	Chandler E Cox	2382115
	01/20/2023			01/20/2023 15:25	Chandler E Cox	2382117
EPA 200.7 Rev. 4.4	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/27/2023 23:40	McKinley C Carter	2382142
	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/28/2023 03:07	McKinley C Carter	2382141
	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/30/2023 19:48	McKinley C Carter	2382141
EPA 200.8 Rev. 5.4	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/30/2023 18:43	Emily M Philpot	2382142
	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/30/2023 23:03	Emily M Philpot	2382141
	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/31/2023 18:23	Emily M Philpot	2382142
	01/20/2023	01/24/2023 11:10	Vijayalakshmi Reddy	01/31/2023 20:58	Emily M Philpot	2382141
	01/20/2023			01/27/2023 16:45	Anna M. Plaviak	2382115
EPA 300.0 Rev. 2.1	01/20/2023			01/27/2023 17:00	Anna M. Plaviak	2382117
	01/20/2023			02/06/2023 10:22	Ping Hua	2382116
EPA 350.1 Rev. 2.0	01/20/2023			02/06/2023 10:24	Ping Hua	2382118
	01/20/2023	01/26/2023 10:00	Simonne.V. Calhoun	01/27/2023 17:13	Judith K. Clark	2382116
EPA 351.2 Rev. 2.0	01/20/2023	01/26/2023 10:00	Simonne.V. Calhoun	01/27/2023 17:18	Judith K. Clark	2382118
	01/20/2023			01/27/2023 10:34	Beverly Y. Sanders	2382116
EPA 353.2 Rev. 2.0	01/20/2023			01/27/2023 10:35	Beverly Y. Sanders	2382118
	01/20/2023	01/25/2023 13:55	Adam P Silver	01/26/2023 10:06	James L Waggeberby	2382116
EPA 365.1 Rev. 2.0	01/20/2023	01/25/2023 13:55	Adam P Silver	01/26/2023 14:27	James L Waggeberby	2382118
	01/20/2023	01/23/2023 08:30	Rasheda Ghaffari	01/29/2023 00:44	Julie Wi	2382133
EPA 8270E	01/20/2023	01/26/2023 11:00	Rasheda Ghaffari	01/27/2023 19:09	Vandana T. Nagar	2382133
	01/20/2023	01/23/2023 08:30	Rasheda Ghaffari	01/25/2023 12:52	Lipi Saha	2382133
EPA 8276	01/20/2023	01/23/2023 14:00	June Rhew	01/24/2023 21:51	Juyoung Kim	2382134
EPA 8321B	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/24/2023 17:35	Manjita Shrestha	2382134
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/24/2023 17:50	Manjita Shrestha	2382135
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/24/2023 18:05	Manjita Shrestha	2382136
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/24/2023 18:20	Manjita Shrestha	2382137
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/24/2023 18:35	Manjita Shrestha	2382138
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/25/2023 03:56	Manjita Shrestha	2382134
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/25/2023 04:10	Manjita Shrestha	2382135
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/25/2023 04:23	Manjita Shrestha	2382136
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/25/2023 04:36	Manjita Shrestha	2382137
	01/20/2023	01/24/2023 12:00	Manjita Shrestha	01/25/2023 04:49	Manjita Shrestha	2382138
	01/20/2023	01/26/2023 09:30	June Rhew	01/26/2023 20:11	Juyoung Kim	2382135
	01/20/2023	01/26/2023 09:30	June Rhew	01/26/2023 20:29	Juyoung Kim	2382136
	01/20/2023	01/26/2023 09:30	June Rhew	01/26/2023 20:48	Juyoung Kim	2382137
	01/20/2023	01/26/2023 09:30	June Rhew	01/26/2023 21:26	Juyoung Kim	2382138
	01/20/2023			01/30/2023 21:32	Dale L. Simmons	2382117
SM 2320 B-2011	01/20/2023					

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	01/20/2023			01/30/2023 23:36	Dale L. Simmons	2382115
SM 2340 B-2011	01/20/2023			01/28/2023 03:07	McKinley C Carter	2382141
SM 2540 C-2015	01/20/2023			01/25/2023 12:55	Yijie Li	2382115, 2382117
SM 2540 D-2015	01/20/2023			01/25/2023 12:55	Yijie Li	2382115, 2382117
SM 4500-F- C-2011	01/20/2023			01/30/2023 21:32	Dale L. Simmons	2382117
	01/20/2023			01/30/2023 23:36	Dale L. Simmons	2382115
SM 5310 B-2011	01/20/2023			01/27/2023 03:03	Khloe J Berg	2382116
	01/20/2023			01/27/2023 05:35	Khloe J Berg	2382118