

Chemical Analysis Report

SE-DIST-2023-12-08-01

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

Event Description: **Melbourne Run**
Request ID: **RQ-2023-11-06-52**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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FL Dept. of Environmental Protection
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Fort Pierce, FL 34945
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Date Certified: 04-JAN-2024 11:12



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: 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: SAWGRASS LAKE EAST OF CENTER

Collection Date/Time: 12/07/2023 11:20

Field ID: G3SE0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455777	DEP SOP: NU-094-1	Color (true)	240		PCU	P438723	
	EPA 180.1 Rev. 2.0	Turbidity	0.75	I	NTU	P438726	
	EPA 300.0 Rev. 2.1	Chloride	76		mg Cl/L	P439438	
		Sulfate	13		mg SO4/L	P439443	
	SM 2320 B-2011	Total Alkalinity	73	A	mg CaCO3/L	P438822	
	SM 2540 C-2015	TDS	265		mg/L	P439248	
	SM 2540 D-2015	TSS	2	U	mg/L	P439288	
	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P438825	
2455778	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P438987	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P438854	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P438890	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P438968	
	SM 5310 B-2014	Organic Carbon	30		mg C/L	P438782	

Ref. Method and Comment:

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

Sample Location: CRANE CREEK EAST OF RR BRIDGE

Collection Date/Time: 12/07/2023 12:15

Field ID: G3SE0071

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455783	EPA 8270E	Aldrin	0.66	U	ng/L	P438886	
		Alpha-BHC	0.10	U	ng/L	P438886	
		Alpha-Chlordane	0.20	U	ng/L	P438886	
		PCB-1016	2.0	U	ng/L	P438886	
		Beta-BHC	0.10	U	ng/L	P438886	
		PCB-1221	2.0	U	ng/L	P438886	
		Beta-Cyfluthrin	1.3	U	ng/L	P438886	
		PCB-1232	2.0	U	ng/L	P438886	
		Bifenthrin	0.51	U	ng/L	P438886	
		PCB-1242	2.0	U	ng/L	P438886	
		Carbophenothion	0.91	U	ng/L	P438886	RPD
		PCB-1248	2.0	U	ng/L	P438886	
		Chlorothalonil	3.7	U	ng/L	P438886	
		PCB-1254	2.0	U	ng/L	P438886	
		Cis-Nonachlor	0.20	U	ng/L	P438886	
		PCB-1260	2.0	U	ng/L	P438886	
		Cypermethrin	1.5	U	ng/L	P438886	
		Dacthal	0.15	U	ng/L	P438886	
		DDD-p,p'	0.25	U	ng/L	P438886	
		DDE-p,p'	0.20	U	ng/L	P438886	
		DDT-p,p'	0.81	U	ng/L	P438886	
		Delta-BHC	0.41	U	ng/L	P438886	
		Deltamethrin	1.3	UJ	ng/L	P438886	LCS, RPD
		Dichlobenil	0.25	U	ng/L	P438886	
		Dicofol	1.3	U	ng/L	P438886	
		Dieldrin	0.41	U	ng/L	P438886	
		Endosulfan I	0.41	U	ng/L	P438886	
		Endosulfan II	0.91	U	ng/L	P438886	
		Endosulfan Sulfate	0.30	U	ng/L	P438886	
		Endrin	0.91	U	ng/L	P438886	
		Endrin Aldehyde	0.76	U	ng/L	P438886	
		Endrin Ketone	0.41	U	ng/L	P438886	
		Esfenvalerate	0.76	U	ng/L	P438886	
		Ethalfuralin	0.15	U	ng/L	P438886	
		Fenpropathrin	0.25	U	ng/L	P438886	
		Gamma-BHC	0.13	U	ng/L	P438886	
		Gamma-Chlordane	0.20	U	ng/L	P438886	
		Heptachlor	0.20	U	ng/L	P438886	
		Heptachlor Epoxide	0.25	U	ng/L	P438886	
		Hexachlorobenzene**	1.0	U	ng/L	P438886	
		Kepone	14	U	ng/L	P438886	
		Lambda-Cyhalothrin	0.76	U	ng/L	P438886	
		Methoprene	0.76	U	ng/L	P438886	
		Methoxychlor	0.30	U	ng/L	P438886	

Field ID: G3SE0071

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455783	EPA 8270E	MGK-264	0.20	U	ng/L	P438886	
		Mirex	0.36	U	ng/L	P438886	
		Oxychlordane	0.30	U	ng/L	P438886	
		Permethrin	1.6	U	ng/L	P438886	
		Phenothrin	0.91	U	ng/L	P438886	
		Piperonyl Butoxide	0.15	U	ng/L	P438886	
		Prallethrin	2.0	U	ng/L	P438886	
		Tau-Fluvalinate	0.25	U	ng/L	P438886	
		Tetramethrin	0.76	U	ng/L	P438886	
		Trans-Nonachlor	0.20	U	ng/L	P438886	MS
		Triclosan Methyl	0.15	U	ng/L	P438886	
		Trifluralin	0.20	U	ng/L	P438886	
		Chlordane	2.0	UJ	ng/L	P438886	SUR
	EPA 8276	Toxaphene	15	UJ	ng/L	P438886	SUR

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: KID CREEK AT OLD DIXIE HIGHWAY

Collection Date/Time: 12/07/2023 12:50

Field ID: G5SE0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455784	EPA 8321B	2,4-D	0.0020	U	ug/L	P438805	
		Acesulfame K	0.10	U	ug/L	P438670	
		2,4,5-T	0.0040	U	ug/L	P438805	
		AMPA	0.10	U	ug/L	P438670	
		Acetaminophen	0.0080	U	ug/L	P438805	
		Acetamiprid	0.0020	U	ug/L	P438805	
		Endothall	0.25	U	ug/L	P438670	
		Glufosinate	0.10	U	ug/L	P438670	
		Glyphosate	0.10	U	ug/L	P438670	
		Afidopyropen	0.0020	U	ug/L	P438805	
		Bentazon	0.0061		ug/L	P438805	
		Sucralose	0.13		ug/L	P438670	
		Benzovindiflupyr	0.0020	U	ug/L	P438805	
		Carbamazepine	8.0E-04	U	ug/L	P438805	
		Clothianidin	0.0020	U	ug/L	P438805	
		Dinotefuran	0.0020	U	ug/L	P438805	
		Diuron	0.0020	U	ug/L	P438805	
		Fenuron	0.032	U	ug/L	P438805	
		Fluridone	8.0E-04	U	ug/L	P438805	
		Imazapyr	0.056		ug/L	P438805	
		Hydrocodone	0.0020	U	ug/L	P438805	
		Ibuprofen	0.080	U	ug/L	P438805	
		Imidacloprid	0.0020	U	ug/L	P438805	
		Linuron	0.0040	U	ug/L	P438805	
		Mandestrobin	0.0020	U	ug/L	P438805	
		MCPP	0.0020	U	ug/L	P438805	
		Naproxen	0.0080	U	ug/L	P438805	
		Primidone	0.0040	U	ug/L	P438805	
		Pyraclostrobin	0.0020	U	ug/L	P438805	
		Silvex	0.0040	U	ug/L	P438805	
		Thiamethoxam	0.0020	U	ug/L	P438805	
		Tolfenpyrad	0.0020	U	ug/L	P438805	
		Triclopyr	0.0040	U	ug/L	P438805	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P438723

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438726

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439438

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439443

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438987

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438854

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438890

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438968

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

Reference Method: EPA 8270E
Batch ID: P438886

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438886

Component	Result	Code	Units
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276

Batch ID: P438886

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

Reference Method: EPA 8321B

Batch ID: P438670

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: P438805

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: P438822

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P439248

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P439288

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438825

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P438782

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: P438723

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438726

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439438

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439443

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438854

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438890

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: P438968

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

Reference Method: EPA 8270E
Batch ID: P438886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	40.8		P	30 - 96.0
Alpha-BHC	78.5		P	70 - 109
Alpha-Chlordane	61.8		P	45 - 107
Beta-BHC	84.4		P	64 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	50.7		P	17 - 141
Bifenthrin	31.6		P	10 - 113
Carbophenothion	61.9		P	24 - 91.0
Chlorothalonil	87.4		P	26 - 180
Cis-Nonachlor	57.7		P	37 - 102
Cypermethrin	45.7		P	20 - 133
Dacthal	83.1		P	69 - 114
DDD-p,p'	59.4		P	42 - 105
DDE-p,p'	70.5		P	42 - 106
DDT-p,p'	60.0		P	42 - 107
Delta-BHC	90.8		P	67 - 144
Deltamethrin	12.1		F	15 - 149
Dichlobenil	76.4		P	46 - 117
Dicofol	63.4		P	34 - 114
Dieldrin	62.3		P	50 - 108
Endosulfan I	67.9		P	55 - 104
Endosulfan II	75.8		P	51 - 111
Endosulfan Sulfate	86.7		P	56 - 121
Endrin	62.5		P	10 - 106
Endrin Aldehyde	78.0		P	34 - 114
Endrin Ketone	94.2		P	63 - 177
Esfenvalerate	52.1		P	29 - 143
Ethalfuralin	86.6		P	46 - 96.0
Fenpropathrin	56.0		P	28 - 115
Gamma-BHC	77.3		P	65 - 121
Gamma-Chlordane	59.2		P	39 - 103
Heptachlor	56.0		P	39 - 94.0
Heptachlor Epoxide	92.5		P	54 - 104
Hexachlorobenzene	61.6		P	36 - 100
Kepone	124		P	10 - 225
Lambda-Cyhalothrin	41.4		P	10 - 135
Methoprene	41.0		P	10 - 109
Methoxychlor	64.4		P	52 - 112
MGK-264	71.6		P	44 - 117
Mirex	50.2		P	20 - 90.0
Oxychlordane	68.8		P	44 - 102
PCB-1016	69.4		P	45 - 107
PCB-1260	79.3		P	40 - 112
Permethrin	48.0		P	18 - 135
Phenothrin	37.3		P	10 - 102
Piperonyl Butoxide	79.2		P	28 - 156
Prallethrin	60.5		P	28 - 113
Tau-Fluvalinate	43.2		P	10 - 123
Tetramethrin	53.1		P	18 - 158
Trans-Nonachlor	77.1		P	39 - 104
Triclosan Methyl	64.3		P	54 - 108
Trifluralin	63.6		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P438886

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

Reference Method: EPA 8276

Batch ID: P438886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	74.4		P	52 - 117
Toxaphene	83.5		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P438670

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	121		P	40 - 150
AMPA	78.7		P	40 - 160
Endothall	51.1		P	40 - 160
Glufosinate	73.4		P	40 - 160
Glyphosate	73.6		P	40 - 160
Sucralose	103		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P438805

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	116		P	40 - 150
Acetaminophen	74.5		P	30 - 150
Acetamiprid	79.8		P	40 - 150
Afidopyropen	74.2		P	30 - 150
Bentazon	59.1		P	30 - 150
Benzovindiflupyr	81.3		P	40 - 150
Carbamazepine	64.9		P	40 - 150
Clothianidin	88.1		P	40 - 150
Dinotefuran	100		P	40 - 150
Diuron	65.6		P	40 - 150
Fenuron	93.7		P	40 - 150
Fluridone	78.1		P	40 - 150
Hydrocodone	94.9		P	40 - 150
Ibuprofen	65.6		P	40 - 150
Imazapyr	88.7		P	40 - 150
Imidacloprid	88.3		P	40 - 150
Linuron	62.9		P	40 - 150
Mandestrobin	88.3		P	40 - 150
MCPP	97.9		P	40 - 150
Naproxen	52.6		P	40 - 150
Primidone	85.6		P	40 - 150
Pyraclostrobin	72.1		P	40 - 150
Silvex	88.6		P	40 - 150
Thiamethoxam	87.0		P	40 - 150
Tolfenpyrad	45.2		P	30 - 150
Triclopyr	121		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P438822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.7		P	92 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P439248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	95.2		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P439288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	105		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P438825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P438782

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455788	Chloride	92.8		P	90 - 110
2456018	Chloride	96.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455788	Sulfate	92.7		P	90 - 110
2456018	Sulfate	94.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455704	Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456255	Kjeldahl Nitrogen	102	98.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455630	NO2NO3-N	96.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455774	Total-P	110	108	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P438886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455277	Aldrin	58.5	49.0	P/P	24 - 81.0
2455277	Alpha-BHC	78.9	75.0	P/P	65 - 110
2455277	Alpha-Chlordane	70.7	59.6	P/P	43 - 119
2455277	Beta-BHC	84.7	80.9	P/P	54 - 165
2455277	Beta-Cyfluthrin	74.8	77.4	P/P	27 - 165
2455277	Bifenthrin	50.0	56.3	P/P	17 - 117
2455277	Carbophenothion	72.0	50.7	P/P	21 - 108
2455277	Chlorothalonil	142	124	P/P	10 - 255
2455277	Cis-Nonachlor	56.1	45.7	P/P	34 - 98.0
2455277	Cypermethrin	70.3	70.1	P/P	25 - 143
2455277	Dacthal	81.1	81.6	P/P	55 - 139
2455277	DDD-p,p'	51.4	48.7	P/P	30 - 109
2455277	DDE-p,p'	74.1	67.7	P/P	35 - 106
2455277	DDT-p,p'	59.9	56.2	P/P	41 - 101

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455277	Delta-BHC	102	89.5	P/P	58 - 165
2455277	Deltamethrin	74.3	22.0	P/P	10 - 194
2455277	Dichlobenil	42.5	40.8	P/P	22 - 114
2455277	Dicofol	63.7	58.3	P/P	17 - 133
2455277	Dieldrin	56.4	55.0	P/P	45 - 129
2455277	Endosulfan I	75.5	67.5	P/P	49 - 104
2455277	Endosulfan II	59.9	55.3	P/P	37 - 117
2455277	Endosulfan Sulfate	77.1	73.3	P/P	38 - 128
2455277	Endrin	50.5	49.9	P/P	35 - 116
2455277	Endrin Aldehyde	60.5	47.9	P/P	19 - 108
2455277	Endrin Ketone	90.5	82.9	P/P	44 - 134
2455277	Esfenvalerate	87.9	108	P/P	27 - 176
2455277	Ethalfuralin	92.8	86.7	P/P	49 - 100
2455277	Fenpropathrin	65.8	62.1	P/P	34 - 117
2455277	Gamma-BHC	98.2	85.3	P/P	59 - 129
2455277	Gamma-Chlordane	62.2	61.6	P/P	33 - 107
2455277	Heptachlor	47.3	43.2	P/P	37 - 94.0
2455277	Heptachlor Epoxide	92.2	88.7	P/P	38 - 118
2455277	Hexachlorobenzene	61.5	61.4	P/P	35 - 97.0
2455277	Kepone	120	100	P/P	10 - 221
2455277	Lambda-Cyhalothrin	75.0	77.8	P/P	23 - 190
2455277	Methoprene	62.3	61.4	P/P	21 - 109
2455277	Methoxychlor	60.7	58.5	P/P	46 - 118
2455277	MGK-264	85.4	77.0	P/P	39 - 122
2455277	Mirex	70.7	64.3	P/P	25 - 90.0
2455277	Oxychlordane	66.7	59.5	P/P	42 - 100
2455277	Permethrin	71.6	78.0	P/P	33 - 181
2455277	Phenothrin	77.9	64.0	P/P	12 - 125
2455277	Piperonyl Butoxide	70.2	72.9	P/P	10 - 178
2455277	Prallethrin	54.8	60.7	P/P	24 - 122
2455277	Tau-Fluvalinate	81.3	99.7	P/P	13 - 151
2455277	Tetramethrin	60.7	63.4	P/P	16 - 172
2455277	Trans-Nonachlor	100	88.4	F/P	39 - 100
2455277	Triclosan Methyl	58.6	52.9	P/P	43 - 110
2455277	Trifluralin	60.8	61.7	P/P	45 - 94.0
2455361	PCB-1016	57.4	63.7	P/P	45 - 107
2455361	PCB-1260	78.7	88.3	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P438886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455361	Chlordane	71.3	77.0	P/P	43 - 123
2455361	Toxaphene	88.6	95.7	P/P	27 - 156

Reference Method: EPA 8321B

Batch ID: P438670

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455535	Acesulfame K	112	111	P/P	40 - 150
2455535	AMPA	71.4	75.6	P/P	40 - 160
2455535	Endothall	56.1	54.5	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P438670

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455535	Glufosinate	68.4	78.0	P/P	40 - 160
2455535	Glyphosate	72.4	74.0	P/P	40 - 160
2455535	Sucralose	101	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P438805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455535	2,4-D	119	121	P/P	40 - 150
2455535	2,4,5-T	98.7	98.2	P/P	40 - 150
2455535	Acetaminophen	75.6	80.7	P/P	30 - 150
2455535	Acetamiprid	91.1	89.7	P/P	40 - 150
2455535	Afidopyropen	86.4	67.9	P/P	30 - 150
2455535	Bentazon	59.9	59.8	P/P	30 - 150
2455535	Benzovindiflupyr	85.7	91.4	P/P	40 - 150
2455535	Carbamazepine	72.6	70.9	P/P	40 - 150
2455535	Clothianidin	96.8	96.6	P/P	40 - 150
2455535	Dinotefuran	110	113	P/P	40 - 150
2455535	Diuron	71.0	72.9	P/P	40 - 150
2455535	Fenuron	104	109	P/P	40 - 150
2455535	Fluridone	87.2	85.6	P/P	40 - 150
2455535	Hydrocodone	97.5	105	P/P	40 - 150
2455535	Ibuprofen	65.1	64.3	P/P	40 - 150
2455535	Imazapyr	90.0	94.6	P/P	40 - 150
2455535	Imidacloprid	95.0	98.4	P/P	40 - 150
2455535	Linuron	70.8	69.5	P/P	40 - 150
2455535	Mandestrobin	93.1	96.7	P/P	40 - 150
2455535	MCPP	102	113	P/P	40 - 150
2455535	Naproxen	46.8	54.9	P/P	40 - 150
2455535	Primidone	86.0	92.9	P/P	40 - 150
2455535	Pyraclostrobin	69.3	71.3	P/P	40 - 150
2455535	Silvex	93.0	90.1	P/P	40 - 150
2455535	Thiamethoxam	80.7	81.9	P/P	40 - 150
2455535	Tolfenpyrad	50.0	56.5	P/P	30 - 150
2455535	Triclopyr	110	103	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P438825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455777	Fluoride	102	102	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P438782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455518	Organic Carbon	98.6	98.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P438723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455773	Color (true)	4.49	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455701	Turbidity	11.7	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455788	Chloride	0.550	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455788	Sulfate	1.18	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455704	Ammonia-N	1.89	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456255	Kjeldahl Nitrogen	2.94	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455630	NO2NO3-N	1.26	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455774	Total-P	1.73	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P438886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455277	Aldrin	17.5	Spike	P	0 - 41
2455277	Alpha-BHC	5.07	Spike	P	0 - 25
2455277	Alpha-Chlordane	17.1	Spike	P	0 - 32
2455277	Beta-BHC	4.55	Spike	P	0 - 33
2455277	Beta-Cyfluthrin	3.34	Spike	P	0 - 43
2455277	Bifenthrin	11.8	Spike	P	0 - 52
2455277	Carbophenothion	34.6	Spike	F	0 - 30
2455277	Chlorothalonil	13.4	Spike	P	0 - 82
2455277	Cis-Nonachlor	20.5	Spike	P	0 - 33
2455277	Cypermethrin	0.274	Spike	P	0 - 51
2455277	Dacthal	0.557	Spike	P	0 - 27
2455277	DDD-p,p'	5.54	Spike	P	0 - 39
2455277	DDE-p,p'	9.00	Spike	P	0 - 31
2455277	DDT-p,p'	6.46	Spike	P	0 - 29
2455277	Delta-BHC	13.0	Spike	P	0 - 35
2455277	Deltamethrin	109	Spike	F	0 - 100
2455277	Dichlobenil	4.25	Spike	P	0 - 40
2455277	Dicofol	8.93	Spike	P	0 - 37
2455277	Dieldrin	2.51	Spike	P	0 - 27
2455277	Endosulfan I	11.3	Spike	P	0 - 23
2455277	Endosulfan II	7.96	Spike	P	0 - 34
2455277	Endosulfan Sulfate	5.08	Spike	P	0 - 36
2455277	Endrin	1.24	Spike	P	0 - 45
2455277	Endrin Aldehyde	23.3	Spike	P	0 - 76
2455277	Endrin Ketone	8.78	Spike	P	0 - 43
2455277	Esfenvalerate	20.7	Spike	P	0 - 51
2455277	Ethalfuralin	6.86	Spike	P	0 - 22
2455277	Fenpropathrin	5.65	Spike	P	0 - 49
2455277	Gamma-BHC	14.1	Spike	P	0 - 28
2455277	Gamma-Chlordane	0.902	Spike	P	0 - 40
2455277	Heptachlor	9.17	Spike	P	0 - 29
2455277	Heptachlor Epoxide	3.88	Spike	P	0 - 33
2455277	Hexachlorobenzene	0.0864	Spike	P	0 - 36
2455277	Kepone	17.9	Spike	P	0 - 85
2455277	Lambda-Cyhalothrin	3.68	Spike	P	0 - 55
2455277	Methoprene	1.56	Spike	P	0 - 53
2455277	Methoxychlor	3.69	Spike	P	0 - 50
2455277	MGK-264	10.3	Spike	P	0 - 43
2455277	Mirex	9.48	Spike	P	0 - 40
2455277	Oxychlordane	11.4	Spike	P	0 - 31
2455277	Permethrin	8.63	Spike	P	0 - 50
2455277	Phenothrin	19.5	Spike	P	0 - 58
2455277	Piperonyl Butoxide	3.76	Spike	P	0 - 100
2455277	Prallethrin	10.1	Spike	P	0 - 39
2455277	Tau-Fluvalinate	20.4	Spike	P	0 - 54
2455277	Tetramethrin	4.27	Spike	P	0 - 51
2455277	Trans-Nonachlor	12.8	Spike	P	0 - 39
2455277	Triclosan Methyl	10.3	Spike	P	0 - 31
2455277	Trifluralin	1.56	Spike	P	0 - 22
2455361	PCB-1016	10.4	Spike	P	0 - 25
2455361	PCB-1260	11.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P438886

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455361	Chlordane	7.71	Spike	P	0 - 28
2455361	Toxaphene	7.67	Spike	P	0 - 27

Reference Method: EPA 8321B

Batch ID: P438670

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455535	Acesulfame K	0.823	Spike	P	0 - 30
2455535	AMPA	5.69	Spike	P	0 - 30
2455535	Endothall	2.94	Spike	P	0 - 30
2455535	Glufosinate	13.0	Spike	P	0 - 30
2455535	Glyphosate	2.15	Spike	P	0 - 30
2455535	Sucralose	3.09	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P438805

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455535	2,4-D	1.81	Spike	P	0 - 30
2455535	2,4,5-T	0.574	Spike	P	0 - 30
2455535	Acetaminophen	6.57	Spike	P	0 - 30
2455535	Acetamiprid	1.55	Spike	P	0 - 30
2455535	Afidopyropen	24.0	Spike	P	0 - 30
2455535	Bentazon	0.197	Spike	P	0 - 30
2455535	Benzovindiflupyr	6.45	Spike	P	0 - 30
2455535	Carbamazepine	2.37	Spike	P	0 - 30
2455535	Clothianidin	0.161	Spike	P	0 - 30
2455535	Dinotefuran	2.88	Spike	P	0 - 30
2455535	Diuron	2.69	Spike	P	0 - 30
2455535	Fenuron	4.82	Spike	P	0 - 30
2455535	Fluridone	1.90	Spike	P	0 - 30
2455535	Hydrocodone	7.39	Spike	P	0 - 30
2455535	Ibuprofen	1.29	Spike	P	0 - 30
2455535	Imazapyr	4.99	Spike	P	0 - 30
2455535	Imidacloprid	3.57	Spike	P	0 - 30
2455535	Linuron	1.80	Spike	P	0 - 30
2455535	Mandestrobin	3.74	Spike	P	0 - 30
2455535	MCPP	9.76	Spike	P	0 - 30
2455535	Naproxen	15.9	Spike	P	0 - 30
2455535	Primidone	7.69	Spike	P	0 - 30
2455535	Pyraclostrobin	2.89	Spike	P	0 - 30
2455535	Silvex	3.20	Spike	P	0 - 30
2455535	Thiamethoxam	1.55	Spike	P	0 - 30
2455535	Tolfenpyrad	12.2	Spike	P	0 - 30
2455535	Triclopyr	6.56	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P438822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455777	Total Alkalinity	0.100	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P439248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455716	TDS	6.50	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455777	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P438782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455518	Organic Carbon	0.175	Spike	P	0 - 15

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

Quality Assurance Report Surrogates

Lab Sample ID: 2455783
Field Sample ID: G3SE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	93.4	P	37 - 129
EPA 8270E	Decachlorobiphenyl	103	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	61.5	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	92.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	132	F	28 - 102
EPA 8276	PCNB	118	F	49 - 115

Lab Sample ID: 2455784
Field Sample ID: G5SE0050

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.6	P	30 - 160
EPA 8321B	Diuron-d6	59.8	P	30 - 160
EPA 8321B	Endothall-d6	73.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.1	P	30 - 160
EPA 8321B	Primidone-d5	89.4	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A123109

Included Lab Sample IDs: 2455777

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A123111

Included Lab Sample IDs: 2455777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: SM 5310 B-2014

Run ID: A123141

Included Lab Sample IDs: 2455778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	100	P/P	85 - 115

Reference Method: SM 2320 B-2011

Run ID: A123158

Included Lab Sample IDs: 2455777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.6	96.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123158

Included Lab Sample IDs: 2455777

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

Reference Method: EPA 8321B

Run ID: A123176

Included Lab Sample IDs: 2455784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	116	116	P/P	60 - 160
Sucralose	99.8	113	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A123188

Included Lab Sample IDs: 2455778

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

Reference Method: EPA 8321B

Run ID: A123212

Included Lab Sample IDs: 2455784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	109	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A123212
Included Lab Sample IDs: 2455784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	107	104	P/P	50 - 150
Acetaminophen	112	107	P/P	60 - 160
Acetamiprid	111	110	P/P	50 - 150
Afidopyropen	94.5	110	P/P	50 - 150
Bentazon	97.2	92.1	P/P	50 - 160
Benzovindiflupyr	110	109	P/P	50 - 150
Carbamazepine	104	104	P/P	60 - 150
Clothianidin	104	108	P/P	60 - 150
Dinotefuran	116	114	P/P	50 - 150
Diuron	116	113	P/P	60 - 160
Fenuron	107	107	P/P	60 - 150
Fluridone	111	115	P/P	60 - 160
Hydrocodone	116	118	P/P	60 - 150
Ibuprofen	100	82.5	P/P	50 - 160
Imazapyr	93.0	90.3	P/P	50 - 150
Imidacloprid	99.7	98.6	P/P	60 - 150
Linuron	102	114	P/P	60 - 150
Mandestrobin	115	111	P/P	50 - 150
MCPP	105	102	P/P	50 - 150
Naproxen	60.8	104	P/P	50 - 160
Primidone	103	101	P/P	60 - 150
Pyraclostrobin	101	103	P/P	60 - 150
Silvex	106	102	P/P	50 - 150
Thiamethoxam	115	113	P/P	50 - 150
Tolfenpyrad	97.8	99.4	P/P	60 - 150
Triclopyr	111	108	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A123222
Included Lab Sample IDs: 2455778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A123230
Included Lab Sample IDs: 2455778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.4	97.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A123245
Included Lab Sample IDs: 2455784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	139	121	P/P	60 - 160
Endothall	97.5	83.4	P/P	60 - 160
Glufosinate	135	112	P/P	60 - 160
Glyphosate	121	113	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123258
Included Lab Sample IDs: 2455783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	102		P	80 - 120
PCB-1260	98.6		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A123263
Included Lab Sample IDs: 2455778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.5	96.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A123338
Included Lab Sample IDs: 2455777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	102	P/P	90 - 110
Sulfate	101	103	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A123370
Included Lab Sample IDs: 2455783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.3		P	80 - 120
Alpha-BHC	95.6		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	98.1		P	80 - 120
Bifenthrin	89.5		P	80 - 120
Carbophenothion	96.8		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	99.3		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	94.0		P	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	96.2		P	80 - 120
Delta-BHC	98.8		P	80 - 120
Deltamethrin	100		P	80 - 120
Dichlobenil	99.5		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	97.2		P	80 - 120
Endosulfan I	99.8		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	96.4		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	97.5		P	80 - 120
Ethalfuralin	104		P	80 - 120
Fenpropathrin	90.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123370
Included Lab Sample IDs: 2455783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-BHC	106		P	80 - 120
Gamma-Chlordane	107		P	80 - 120
Heptachlor	96.9		P	80 - 120
Heptachlor Epoxide	110		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	104		P	80 - 120
Lambda-Cyhalothrin	99.5		P	80 - 120
Methoprene	99.7		P	80 - 120
Methoxychlor	90.4		P	80 - 120
MGK-264	107		P	80 - 120
Mirex	102		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	98.6		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	92.3		P	80 - 120
Prallethrin	98.8		P	80 - 120
Tau-Fluvalinate	97.1		P	80 - 120
Tetramethrin	97.3		P	80 - 120
Trans-Nonachlor	109		P	80 - 120
Triclosan Methyl	94.5		P	80 - 120
Trifluralin	103		P	80 - 120

Reference Method: EPA 8276
Run ID: A123381
Included Lab Sample IDs: 2455783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	104		P	80 - 120
Toxaphene	107		P	80 - 120

* 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	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	102				4.49	
EPA 180.1 Rev. 2.0	Turbidity	103				11.7	
EPA 300.0 Rev. 2.1	Chloride	102	92.8	96.5		0.550	
	Sulfate	102	92.7	94.3		1.18	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	99.0	101			1.89
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	102	98.3			2.94
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	96.2				1.26
EPA 365.1 Rev. 2.0	Total-P	106	110	108			1.73
EPA 8270E	Aldrin	40.8	58.5	49.0			17.5
	Alpha-BHC	78.5	78.9	75.0			5.07
	Alpha-Chlordane	61.8	70.7	59.6			17.1
	Beta-BHC	84.4	84.7	80.9			4.55
	Beta-Cyfluthrin	50.7	74.8	77.4			3.34
	Bifenthrin	31.6	50.0	56.3			11.8
	Carbophenothion	61.9	72.0	50.7			34.6
	Chlorothalonil	87.4	142	124			13.4
	Cis-Nonachlor	57.7	56.1	45.7			20.5
	Cypermethrin	45.7	70.3	70.1			0.274
	Dacthal	83.1	81.1	81.6			0.557
	DDD-p,p'	59.4	51.4	48.7			5.54
	DDE-p,p'	70.5	74.1	67.7			9.00
	DDT-p,p'	60.0	59.9	56.2			6.46
	Delta-BHC	90.8	102	89.5			13.0
	Deltamethrin	12.1	74.3	22.0			109
	Dichlobenil	76.4	42.5	40.8			4.25
	Dicofol	63.4	63.7	58.3			8.93
	Dieldrin	62.3	56.4	55.0			2.51
	Endosulfan I	67.9	75.5	67.5			11.3
	Endosulfan II	75.8	59.9	55.3			7.96
	Endosulfan Sulfate	86.7	77.1	73.3			5.08
	Endrin	62.5	50.5	49.9			1.24
	Endrin Aldehyde	78.0	60.5	47.9			23.3
	Endrin Ketone	94.2	90.5	82.9			8.78
	Esfenvalerate	52.1	87.9	108			20.7
	Ethalfuralin	86.6	92.8	86.7			6.86
	Fenpropathrin	56.0	65.8	62.1			5.65
	Gamma-BHC	77.3	98.2	85.3			14.1
	Gamma-Chlordane	59.2	62.2	61.6			0.902
	Heptachlor	56.0	47.3	43.2			9.17
	Heptachlor Epoxide	92.5	92.2	88.7			3.88
	Hexachlorobenzene	61.6	61.5	61.4			0.0864
	Kepone	124	120	100			17.9
	Lambda-Cyhalothrin	41.4	75.0	77.8			3.68
	Methoprene	41.0	62.3	61.4			1.56
	Methoxychlor	64.4	60.7	58.5			3.69
	MGK-264	71.6	85.4	77.0			10.3
	Mirex	50.2	70.7	64.3			9.48
	Oxychlordane	68.8	66.7	59.5			11.4
	PCB-1016	69.4	57.4	63.7			10.4
	PCB-1260	79.3	78.7	88.3			11.5
	Permethrin	48.0	71.6	78.0			8.63
	Phenothrin	37.3	77.9	64.0			19.5
	Piperonyl Butoxide	79.2	70.2	72.9			3.76
	Prallethrin	60.5	54.8	60.7			10.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Tau-Fluvalinate	43.2	81.3	99.7			20.4
	Tetramethrin	53.1	60.7	63.4			4.27
	Trans-Nonachlor	77.1	100	88.4			12.8
	Triclosan Methyl	64.3	58.6	52.9			10.3
	Trifluralin	63.6	60.8	61.7			1.56
EPA 8276	Chlordane	74.4	71.3	77.0			7.71
	Toxaphene	83.5	88.6	95.7			7.67
EPA 8321B	2,4-D	110	121	119			1.81
	2,4,5-T	116	98.2	98.7			0.574
	Acesulfame K	121	112	111			0.823
	Acetaminophen	74.5	75.6	80.7			6.57
	Acetamiprid	79.8	89.7	91.1			1.55
	Afidopyropen	74.2	67.9	86.4			24.0
	AMPA	78.7	71.4	75.6			5.69
	Bentazon	59.1	59.8	59.9			0.197
	Benzovindiflupyr	81.3	91.4	85.7			6.45
	Carbamazepine	64.9	70.9	72.6			2.37
	Clothianidin	88.1	96.6	96.8			0.161
	Dinotefuran	100	110	113			2.88
	Diuron	65.6	72.9	71.0			2.69
	Endothall	51.1	56.1	54.5			2.94
	Fenuron	93.7	104	109			4.82
	Fluridone	78.1	85.6	87.2			1.90
	Glufosinate	73.4	68.4	78.0			13.0
	Glyphosate	73.6	72.4	74.0			2.15
	Hydrocodone	94.9	97.5	105			7.39
	Ibuprofen	65.6	64.3	65.1			1.29
	Imazapyr	88.7	94.6	90.0			4.99
	Imidacloprid	88.3	98.4	95.0			3.57
	Linuron	62.9	69.5	70.8			1.80
	Mandestrobin	88.3	96.7	93.1			3.74
	MCPP	97.9	113	102			9.76
	Naproxen	52.6	54.9	46.8			15.9
	Primidone	85.6	86.0	92.9			7.69
	Pyraclostrobin	72.1	71.3	69.3			2.89
	Silvex	88.6	90.1	93.0			3.20
	Sucralose	103	101	104			3.09
	Thiamethoxam	87.0	80.7	81.9			1.55
	Tolfenpyrad	45.2	56.5	50.0			12.2
	Triclopyr	121	103	110			6.56
SM 2320 B-2011	Total Alkalinity	98.7				0.100	
SM 2540 C-2015	TDS	95.2				6.50	
SM 2540 D-2015	TSS	105					
SM 4500-F- C-2011	Fluoride	103	102	102			0.0
SM 5310 B-2014	Organic Carbon	101	98.6	98.5			0.175

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2455777
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2455777
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2455777
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2455777

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2455778
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2455778
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2455778
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2455778
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2455783
EPA 8270E	PCBs in water matrices by GC/MS/MS	2455783
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2455783
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2455784
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2455777
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2455777
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2455777
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2455777
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2455778

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	12/08/2023			12/08/2023 15:34	Samantha L Bates	2455777
EPA 180.1 Rev. 2.0	12/08/2023			12/08/2023 15:21	Anna M. Plaviak	2455777
EPA 300.0 Rev. 2.1	12/08/2023			12/22/2023 16:53	James L Waggeberby	2455777
EPA 350.1 Rev. 2.0	12/08/2023			12/14/2023 12:07	Khloe J Berg	2455778
EPA 351.2 Rev. 2.0	12/08/2023	12/13/2023 09:31	Samantha L Bates	12/14/2023 10:42	Samantha L Bates	2455778
EPA 353.2 Rev. 2.0	12/08/2023			12/12/2023 13:45	Fadila Guebre	2455778
EPA 365.1 Rev. 2.0	12/08/2023	12/14/2023 11:55	Adam P Silver	12/15/2023 13:53	James L Waggeberby	2455778
EPA 8270E	12/08/2023	12/12/2023 08:30	Rasheda Ghaffari	12/15/2023 01:29	Lipi Saha	2455783
	12/08/2023	12/12/2023 08:30	Rasheda Ghaffari	12/21/2023 03:17	Julie Wi	2455783
EPA 8276	12/08/2023	12/12/2023 08:30	Rasheda Ghaffari	12/21/2023 11:02	Arthur Maknenko	2455783
EPA 8321B	12/08/2023	12/12/2023 14:00	Hana Lee	12/12/2023 18:57	Tae K Lee	2455784
	12/08/2023	12/12/2023 14:00	Hana Lee	12/14/2023 11:21	Tae K Lee	2455784
	12/08/2023	12/13/2023 09:00	Hoor Shaik	12/13/2023 21:49	Juyoung Kim	2455784
SM 2320 B-2011	12/08/2023			12/11/2023 21:15	Adam P Silver	2455777
SM 2540 C-2015	12/08/2023			12/12/2023 15:24	Yijie Li	2455777
SM 2540 D-2015	12/08/2023			12/12/2023 15:24	Yijie Li	2455777
SM 4500-F- C-2011	12/08/2023			12/11/2023 21:05	Adam P Silver	2455777
SM 5310 B-2014	12/08/2023			12/11/2023 21:11	Kenneth H Lee	2455778