

Chemical Analysis Report

SO-DIST-2023-08-08-01

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

Event Description: **2023 SMP: Burnt Store & More**
Request ID: **RQ-2023-08-07-57**
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: Monica.Jaeger

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

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

Date Certified: 05-SEP-2023 12:17



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: YUCCA PEN MARINE AT N OF OLD BURNT STORE

Collection Date/Time: 08/07/2023 09:15

Field ID: G2SD0015

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2429128	DEP SOP: NU-094-1	Color (true)	140		PCU	P433584	
	EPA 180.1 Rev. 2.0	Turbidity	5.3		NTU	P433579	
	EPA 300.0 Rev. 2.1	Chloride	1.3E+04		mg Cl/L	P434532	
		Sulfate	1.8E+03		mg SO4/L	P434535	
	SM 2320 B-2011	Total Alkalinity	137		mg CaCO3/L	P433673	
	SM 2540 C-2015	TDS	2.33E+04		mg/L	P433934	
	SM 2540 D-2015	TSS	8	I	mg/L	P433899	
	SM 4500-F- C-2011	Fluoride	0.94		mg F/L	P433677	
2429129	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P433778	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P433593	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P434190	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P433602	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P433755	

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: FORD CANAL AT GALLEE WAY

Collection Date/Time: 08/07/2023 10:10

Field ID: G3SD0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2429130	DEP SOP: NU-094-1	Color (true)	53		PCU	P433584	
	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P433579	
	EPA 300.0 Rev. 2.1	Chloride	68		mg Cl/L	P434296	
		Sulfate	18		mg SO4/L	P434301	
	SM 2320 B-2011	Total Alkalinity	192		mg CaCO3/L	P433672	
	SM 2540 C-2015	TDS	334		mg/L	P433933	
	SM 2540 D-2015	TSS	3	I	mg/L	P433896	
2429131	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P433676	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P433779	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P433592	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P433684	
	EPA 365.1 Rev. 2.0	Total-P	0.42		mg P/L	P433606	
2429139	SM 5310 B-2011	Organic Carbon	9.7		mg C/L	P433659	
	EPA 8321B	2,4-D	0.013		ug/L	P433544	
		Acesulfame K	0.10	UQJ	ug/L	P433621	MS
		AMPA	0.61		ug/L	P433621	
		2,4,5-T	0.0040	U	ug/L	P433544	
		Sucralose	0.42		ug/L	P433621	
		Acetaminophen	0.0080	U	ug/L	P433544	
		Endothall	0.25	U	ug/L	P433621	
		Acetamiprid	0.0020	U	ug/L	P433544	
		Glufosinate	0.10	U	ug/L	P433621	
		Glyphosate	6.5		ug/L	P433621	
		Afidopyropen	0.0020	UJ	ug/L	P433544	CCV, RPD
		Bentazon	0.46		ug/L	P433544	
		Benzovindiflupyr	0.0020	U	ug/L	P433544	
		Carbamazepine	8.0E-04	U	ug/L	P433544	MS
		Clothianidin	0.0022	I	ug/L	P433544	
		Dinotefuran	0.0025	I	ug/L	P433544	
		Diuron	0.0020	U	ug/L	P433544	MS
		Fenuron	0.032	U	ug/L	P433544	
		Fluridone	8.0E-04	U	ug/L	P433544	
		Imazapyr	0.27		ug/L	P433544	
		Hydrocodone	0.0020	U	ug/L	P433544	
		Ibuprofen	0.080	U	ug/L	P433544	
		Imidacloprid	0.039		ug/L	P433544	
		Linuron	0.0040	UJ	ug/L	P433544	CCV
		Mandestrobin	0.0020	U	ug/L	P433544	
		MCP	0.0020	U	ug/L	P433544	
		Naproxen	0.0080	U	ug/L	P433544	
		Primidone	0.0040	U	ug/L	P433544	
		Pyraclostrobin	0.0020	U	ug/L	P433544	
		Silvex	0.0040	U	ug/L	P433544	
		Thiamethoxam	0.0020	U	ug/L	P433544	

Field ID: G3SD0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2429139	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P433544	
		Triclopyr	0.0040	U	ug/L	P433544	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: Acesulfame K analyzed beyond holding time due to technical difficulties. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: MANUEL BRANCH AT BROADWAY

Collection Date/Time: 08/07/2023 10:35

Field ID: G3SD0078

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2429138	EPA 8270E	Aldrin	0.66	U	ng/L	P433548	RPD
		Alpha-BHC	0.10	U	ng/L	P433548	
		Alpha-Chlordane	0.20	U	ng/L	P433548	
		PCB-1016	2.0	U	ng/L	P433548	
		Beta-BHC	0.16	I	ng/L	P433548	
		PCB-1221	2.0	U	ng/L	P433548	
		Beta-Cyfluthrin	1.3	U	ng/L	P433548	
		PCB-1232	2.0	U	ng/L	P433548	
		Bifenthrin	0.51	U	ng/L	P433548	
		PCB-1242	2.0	U	ng/L	P433548	
		Carbophenothion	0.92	U	ng/L	P433548	
		PCB-1248	2.0	U	ng/L	P433548	
		Chlorothalonil	3.7	U	ng/L	P433548	
		PCB-1254	2.0	U	ng/L	P433548	
		Cis-Nonachlor	0.20	U	ng/L	P433548	
		PCB-1260	2.0	U	ng/L	P433548	
		Cypermethrin	1.5	U	ng/L	P433548	
		Dacthal	0.15	U	ng/L	P433548	
		DDD-p,p'	0.34	I	ng/L	P433548	
		DDE-p,p'	0.20	U	ng/L	P433548	
		DDT-p,p'	0.82	U	ng/L	P433548	
		Delta-BHC	0.41	U	ng/L	P433548	
		Deltamethrin	1.3	U	ng/L	P433548	
		Dichlobenil	0.26	U	ng/L	P433548	
		Dicofol	1.3	U	ng/L	P433548	
		Dieldrin	0.65	I	ng/L	P433548	
		Endosulfan I	0.41	U	ng/L	P433548	
		Endosulfan II	0.92	U	ng/L	P433548	
		Endosulfan Sulfate	0.31	U	ng/L	P433548	
		Endrin	0.92	U	ng/L	P433548	
		Endrin Aldehyde	0.77	U	ng/L	P433548	
		Endrin Ketone	0.41	U	ng/L	P433548	
		Esfenvalerate	0.77	U	ng/L	P433548	
		Ethalfuralin	0.15	U	ng/L	P433548	
		Fenpropathrin	0.26	U	ng/L	P433548	
		Gamma-BHC	0.13	U	ng/L	P433548	
		Gamma-Chlordane	0.20	U	ng/L	P433548	
		Heptachlor	0.20	U	ng/L	P433548	
		Heptachlor Epoxide	0.26	U	ng/L	P433548	
		Hexachlorobenzene**	1.0	U	ng/L	P433548	
		Kepone	14	U	ng/L	P433548	
		Lambda-Cyhalothrin	0.77	U	ng/L	P433548	
		Methoprene	0.77	U	ng/L	P433548	
		Methoxychlor	0.31	U	ng/L	P433548	

Field ID: G3SD0078

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2429138	EPA 8270E	MGK-264	0.20	U	ng/L	P433548	
		Mirex	0.36	U	ng/L	P433548	
		Oxychlordane	0.31	U	ng/L	P433548	
		Permethrin	1.6	U	ng/L	P433548	
		Phenothrin	0.92	U	ng/L	P433548	
		Piperonyl Butoxide	1.8		ng/L	P433548	
		Prallethrin	2.0	U	ng/L	P433548	
		Tau-Fluvalinate	0.26	U	ng/L	P433548	
		Tetramethrin	0.77	U	ng/L	P433548	
		Trans-Nonachlor	0.20	U	ng/L	P433548	
		Triclosan Methyl	0.15	U	ng/L	P433548	
		Trifluralin	0.20	U	ng/L	P433548	
	EPA 8276	Chlordane	2.0	U	ng/L	P433548	
		Toxaphene	15	U	ng/L	P433548	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433584

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433579

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434296

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434301

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434532

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434535

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433778

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433779

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433592

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433593

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433684

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434190

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433602

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433606

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

Reference Method: EPA 8270E
Batch ID: P433548

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433548

Component	Result	Code	Units
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'	0.80	U	ng/L
DDT-p,p'	0.80	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	0.90	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin	0.90	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	14	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433548

Component	Result	Code	Units
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P433548

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: P433544

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P433544

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: P433621

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: SM 2320 B-2011

Batch ID: P433672

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

Reference Method: SM 2320 B-2011

Batch ID: P433673

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: P433933

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P433934

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433896

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433899

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433676

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P433677

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P433659

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

Reference Method: SM 5310 B-2011
Batch ID: P433755

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: P433584

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.3		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433579

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434296

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434301

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434532

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434535

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433778

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433779

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433592

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433593

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433602

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433606

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

Reference Method: EPA 8270E
Batch ID: P433548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.8		P	30 - 96.0
Alpha-BHC	105		P	70 - 109
Alpha-Chlordane	60.3		P	45 - 107
Beta-BHC	65.7		P	64 - 138
Beta-Cyfluthrin	79.2		P	17 - 141
Bifenthrin	52.6		P	10 - 113
Carbophenothion	56.0		P	24 - 91.0
Chlorothalonil	52.2		P	26 - 180
Cis-Nonachlor	61.4		P	37 - 102
Cypermethrin	74.5		P	20 - 133
Dacthal	73.8		P	69 - 114
DDD-p,p'	60.1		P	42 - 105
DDE-p,p'	61.2		P	42 - 106
DDT-p,p'	67.2		P	42 - 107
Delta-BHC	67.2		P	67 - 144
Deltamethrin	99.5		P	15 - 149
Dichlobenil	63.6		P	46 - 117
Dicofol	67.4		P	34 - 114
Dieldrin	65.5		P	50 - 108
Endosulfan I	65.5		P	55 - 104
Endosulfan II	77.6		P	51 - 111
Endosulfan Sulfate	71.2		P	56 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P433548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	67.0		P	10 - 106
Endrin Aldehyde	66.2		P	34 - 114
Endrin Ketone	79.7		P	63 - 177
Esfenvalerate	84.0		P	29 - 143
Ethalfuralin	52.1		P	46 - 96.0
Fenpropathrin	54.3		P	28 - 115
Gamma-BHC	68.0		P	65 - 121
Gamma-Chlordane	60.2		P	39 - 103
Heptachlor	59.4		P	39 - 94.0
Heptachlor Epoxide	71.6		P	54 - 104
Hexachlorobenzene	46.6		P	36 - 100
Kepone	40.5		P	10 - 225
Lambda-Cyhalothrin	69.2		P	10 - 135
Methoprene	49.6		P	10 - 109
Methoxychlor	75.1		P	52 - 112
MGK-264	82.6		P	44 - 117
Mirex	57.8		P	20 - 90.0
Oxychlordane	65.1		P	44 - 102
PCB-1016	56.5		P	45 - 107
PCB-1260	71.1		P	40 - 118
Permethrin	72.1		P	18 - 135
Phenothrin	51.8		P	10 - 102
Piperonyl Butoxide	86.6		P	28 - 156
Prallethrin	65.9		P	28 - 113
Tau-Fluvalinate	70.8		P	10 - 123
Tetramethrin	80.4		P	18 - 158
Trans-Nonachlor	69.6		P	39 - 104
Triclosan Methyl	60.7		P	54 - 108
Trifluralin	73.0		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P433548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.1		P	52 - 117
Toxaphene	88.7		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P433544

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	78.8		P	40 - 150
2,4,5-T	81.6		P	40 - 150
Acetaminophen	71.6		P	30 - 150
Acetamiprid	85.6		P	40 - 150
Afidopyropen	88.6		P	30 - 150
Bentazon	118		P	30 - 150
Benzovindiflupyr	61.0		P	40 - 150
Carbamazepine	67.9		P	40 - 150
Clothianidin	87.2		P	40 - 150
Dinotefuran	109		P	40 - 150
Diuron	61.8		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P433544

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	95.7		P	40 - 150
Fluridone	97.4		P	40 - 150
Hydrocodone	111		P	40 - 150
Ibuprofen	69.4		P	40 - 150
Imazapyr	100		P	40 - 150
Imidacloprid	84.0		P	40 - 150
Linuron	71.9		P	40 - 150
Mandestrobin	94.6		P	40 - 150
MCPP	90.3		P	40 - 150
Naproxen	66.6		P	40 - 150
Primidone	85.4		P	40 - 150
Pyraclostrobin	75.8		P	40 - 150
Silvex	93.2		P	40 - 150
Thiamethoxam	82.7		P	40 - 150
Tolfenpyrad	74.0		P	30 - 150
Triclopyr	85.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	81.6		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	98.0		P	40 - 150
Glyphosate	114		P	40 - 150
Sucralose	93.2		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P433672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.6		P	92 - 105

Reference Method: SM 2320 B-2011
Batch ID: P433673

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P433933

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

Reference Method: SM 2540 C-2015
Batch ID: P433934

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.5		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P433896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.4		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P433899

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.4		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433676

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433677

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P433659

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

Reference Method: SM 5310 B-2011
Batch ID: P433755

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430372	Chloride	101		P	90 - 110
2430510	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434301

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430372	Sulfate	97.8		P	90 - 110
2430510	Sulfate	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433503	Chloride	103		P	90 - 110
2433612	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433503	Sulfate	101		P	90 - 110
2433612	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428198	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433779

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429262	Ammonia-N	97.0	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429123	Kjeldahl Nitrogen	88.5	96.6	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429232	Kjeldahl Nitrogen	100	99.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429077	NO2NO3-N	107	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429697	NO2NO3-N	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433602

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429230	Total-P	92.4	95.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P433548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429311	PCB-1016	60.0	59.6	P/P	45 - 107
2429311	PCB-1260	66.7	66.0	P/P	40 - 112
2429416	Aldrin	53.4	41.6	P/P	24 - 81.0
2429416	Alpha-BHC	93.8	98.8	P/P	65 - 110
2429416	Alpha-Chlordane	68.2	61.1	P/P	43 - 119
2429416	Beta-BHC	85.2	69.5	P/P	54 - 165
2429416	Beta-Cyfluthrin	93.0	81.1	P/P	27 - 165
2429416	Bifenthrin	80.3	73.9	P/P	17 - 117
2429416	Carbophenothion	53.7	45.4	P/P	21 - 108
2429416	Chlorothalonil	70.7	63.9	P/P	10 - 255
2429416	Cis-Nonachlor	83.3	69.9	P/P	34 - 98.0
2429416	Cypermethrin	69.2	67.8	P/P	25 - 143
2429416	Dacthal	85.6	63.4	P/P	55 - 139
2429416	DDD-p,p'	70.3	64.7	P/P	30 - 109
2429416	DDE-p,p'	69.1	59.9	P/P	35 - 106
2429416	DDT-p,p'	66.9	67.3	P/P	41 - 101
2429416	Delta-BHC	93.2	89.2	P/P	58 - 165
2429416	Deltamethrin	103	89.8	P/P	10 - 194
2429416	Dichlobenil	54.6	47.5	P/P	22 - 114
2429416	Dicofol	73.6	70.1	P/P	17 - 133
2429416	Dieldrin	72.3	62.1	P/P	45 - 129
2429416	Endosulfan I	86.1	73.6	P/P	49 - 104
2429416	Endosulfan II	72.8	53.0	P/P	37 - 117
2429416	Endosulfan Sulfate	54.9	51.3	P/P	38 - 128
2429416	Endrin	76.3	63.2	P/P	35 - 116
2429416	Endrin Aldehyde	70.5	61.8	P/P	19 - 108
2429416	Endrin Ketone	81.5	79.0	P/P	44 - 134
2429416	Esfenvalerate	117	104	P/P	27 - 176
2429416	Ethalfuralin	72.2	61.5	P/P	49 - 100
2429416	Fenpropathrin	76.2	79.9	P/P	34 - 117
2429416	Gamma-BHC	83.8	64.1	P/P	59 - 129
2429416	Gamma-Chlordane	63.4	56.8	P/P	33 - 107
2429416	Heptachlor	72.0	59.6	P/P	37 - 94.0
2429416	Heptachlor Epoxide	88.2	81.1	P/P	38 - 118

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429416	Hexachlorobenzene	55.8	50.0	P/P	35 - 97.0
2429416	Kepone	42.1	34.0	P/P	10 - 221
2429416	Lambda-Cyhalothrin	91.0	91.0	P/P	23 - 190
2429416	Methoprene	66.9	65.0	P/P	21 - 109
2429416	Methoxychlor	64.6	62.2	P/P	46 - 118
2429416	MGK-264	73.2	68.2	P/P	39 - 122
2429416	Mirex	79.0	67.8	P/P	25 - 90.0
2429416	Oxychlordane	71.3	69.6	P/P	42 - 100
2429416	Permethrin	77.5	56.6	P/P	33 - 181
2429416	Phenothrin	90.2	78.4	P/P	12 - 125
2429416	Piperonyl Butoxide	114	118	P/P	10 - 178
2429416	Prallethrin	92.0	92.8	P/P	24 - 122
2429416	Tau-Fluvalinate	99.1	108	P/P	13 - 151
2429416	Tetramethrin	99.8	102	P/P	16 - 172
2429416	Trans-Nonachlor	64.2	52.7	P/P	39 - 100
2429416	Triclosan Methyl	70.6	58.6	P/P	43 - 110
2429416	Trifluralin	64.7	60.8	P/P	45 - 94.0

Reference Method: EPA 8276

Batch ID: P433548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429311	Chlordane	71.6	74.9	P/P	43 - 123
2429311	Toxaphene	86.5	83.7	P/P	27 - 156

Reference Method: EPA 8321B

Batch ID: P433544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428665	2,4,5-T	99.8	114	P/P	40 - 150
2428665	Acetaminophen	79.6	84.5	P/P	30 - 150
2428665	Acetamiprid	40.5	44.6	P/P	40 - 150
2428665	Afidopyropen	51.9	92.8	P/P	30 - 150
2428665	Bentazon	66.0	81.7	P/P	30 - 150
2428665	Benzovindiflupyr	52.1	66.6	P/P	40 - 150
2428665	Carbamazepine	36.7	40.3	F/P	40 - 150
2428665	Dinotefuran	80.2	77.0	P/P	40 - 150
2428665	Diuron	36.9	38.7	F/F	40 - 150
2428665	Fenuron	49.5	50.3	P/P	40 - 150
2428665	Fluridone	56.7	72.9	P/P	40 - 150
2428665	Hydrocodone	56.9	57.8	P/P	40 - 150
2428665	Ibuprofen	69.4	68.2	P/P	40 - 150
2428665	Imazapyr	74.9	90.9	P/P	40 - 150
2428665	Linuron	62.6	54.5	P/P	40 - 150
2428665	Mandestrobin	68.8	83.0	P/P	40 - 150
2428665	MCCPP	111	107	P/P	40 - 150
2428665	Naproxen	66.8	65.2	P/P	40 - 150
2428665	Primidone	72.2	74.4	P/P	40 - 150
2428665	Pyraclostrobin	55.4	67.9	P/P	40 - 150
2428665	Silvex	102	101	P/P	40 - 150
2428665	Thiamethoxam	60.6	73.9	P/P	40 - 150
2428665	Tolfenpyrad	60.6	72.2	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P433544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428665	Triclopyr	111	107	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429139	Acesulfame K	155	157	F/F	40 - 150
2429139	AMPA	49.0	51.3	P/P	40 - 150
2429139	Endothall	109	103	P/P	40 - 150
2429139	Glufosinate	88.1	86.4	P/P	40 - 150
2429139	Glyphosate	95.8	121	P/P	40 - 150
2429139	Sucralose	95.0	102	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P433676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429321	Fluoride	98.3	99.7	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P433677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429331	Fluoride	98.1	99.6	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P433659

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429301	Organic Carbon	96.3	98.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P433755

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429330	Organic Carbon	90.6	92.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429122	Color (true)	0.585	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429028	Turbidity	9.55	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430372	Chloride	0.114	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434301

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430372	Sulfate	0.550	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433503	Chloride	0.243	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433503	Sulfate	0.572	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428198	Ammonia-N	0.605	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433779

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429262	Ammonia-N	0.369	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429123	Kjeldahl Nitrogen	5.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429232	Kjeldahl Nitrogen	0.0388	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429077	NO2NO3-N	0.468	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429697	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429230	Total-P	2.69	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429301	Total-P	0.388	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P433548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429311	PCB-1016	0.635	Spike	P	0 - 25
2429311	PCB-1260	1.05	Spike	P	0 - 30
2429416	Aldrin	24.9	Spike	P	0 - 41
2429416	Alpha-BHC	5.19	Spike	P	0 - 25
2429416	Alpha-Chlordane	11.0	Spike	P	0 - 32
2429416	Beta-BHC	20.3	Spike	P	0 - 33
2429416	Beta-Cyfluthrin	13.7	Spike	P	0 - 43
2429416	Bifenthrin	8.21	Spike	P	0 - 52
2429416	Carbophenothion	16.8	Spike	P	0 - 49

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P433548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429416	Chlorothalonil	10.0	Spike	P	0 - 82
2429416	Cis-Nonachlor	17.6	Spike	P	0 - 33
2429416	Cypermethrin	1.94	Spike	P	0 - 51
2429416	Dacthal	29.8	Spike	F	0 - 27
2429416	DDD-p,p'	8.31	Spike	P	0 - 39
2429416	DDE-p,p'	14.3	Spike	P	0 - 31
2429416	DDT-p,p'	0.646	Spike	P	0 - 29
2429416	Delta-BHC	4.35	Spike	P	0 - 35
2429416	Deltamethrin	13.7	Spike	P	0 - 100
2429416	Dichlobenil	14.0	Spike	P	0 - 40
2429416	Dicofol	4.79	Spike	P	0 - 37
2429416	Dieldrin	14.1	Spike	P	0 - 27
2429416	Endosulfan I	15.7	Spike	P	0 - 23
2429416	Endosulfan II	31.4	Spike	P	0 - 34
2429416	Endosulfan Sulfate	6.73	Spike	P	0 - 36
2429416	Endrin	18.8	Spike	P	0 - 45
2429416	Endrin Aldehyde	13.2	Spike	P	0 - 76
2429416	Endrin Ketone	3.13	Spike	P	0 - 43
2429416	Esfenvalerate	11.6	Spike	P	0 - 51
2429416	Ethalfuralin	15.9	Spike	P	0 - 22
2429416	Fenpropathrin	4.74	Spike	P	0 - 49
2429416	Gamma-BHC	26.7	Spike	P	0 - 28
2429416	Gamma-Chlordane	11.0	Spike	P	0 - 40
2429416	Heptachlor	18.9	Spike	P	0 - 29
2429416	Heptachlor Epoxide	8.38	Spike	P	0 - 33
2429416	Hexachlorobenzene	10.9	Spike	P	0 - 36
2429416	Kepone	21.2	Spike	P	0 - 85
2429416	Lambda-Cyhalothrin	0.0390	Spike	P	0 - 55
2429416	Methoprene	2.91	Spike	P	0 - 53
2429416	Methoxychlor	3.79	Spike	P	0 - 50
2429416	MGK-264	7.14	Spike	P	0 - 43
2429416	Mirex	15.2	Spike	P	0 - 40
2429416	Oxychlordane	2.48	Spike	P	0 - 31
2429416	Permethrin	31.1	Spike	P	0 - 50
2429416	Phenothrin	14.0	Spike	P	0 - 58
2429416	Piperonyl Butoxide	2.69	Spike	P	0 - 100
2429416	Prallethrin	0.914	Spike	P	0 - 39
2429416	Tau-Fluvalinate	8.81	Spike	P	0 - 54
2429416	Tetramethrin	1.99	Spike	P	0 - 51
2429416	Trans-Nonachlor	19.8	Spike	P	0 - 39
2429416	Triclosan Methyl	18.6	Spike	P	0 - 31
2429416	Trifluralin	6.22	Spike	P	0 - 22

Reference Method: EPA 8276

Batch ID: P433548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429311	Chlordane	4.47	Spike	P	0 - 28
2429311	Toxaphene	3.32	Spike	P	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P433544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428665	2,4-D	9.70	Spike	P	0 - 30
2428665	2,4,5-T	12.9	Spike	P	0 - 30
2428665	Acetaminophen	5.99	Spike	P	0 - 30
2428665	Acetamiprid	9.79	Spike	P	0 - 30
2428665	Afidopyropen	56.6	Spike	F	0 - 30
2428665	Bentazon	12.7	Spike	P	0 - 30
2428665	Benzovindiflupyr	24.4	Spike	P	0 - 30
2428665	Carbamazepine	9.33	Spike	P	0 - 30
2428665	Clothianidin	2.54	Spike	P	0 - 30
2428665	Dinotefuran	4.05	Spike	P	0 - 30
2428665	Diuron	4.64	Spike	P	0 - 30
2428665	Fenuron	1.61	Spike	P	0 - 30
2428665	Fluridone	24.9	Spike	P	0 - 30
2428665	Hydrocodone	1.57	Spike	P	0 - 30
2428665	Ibuprofen	1.69	Spike	P	0 - 30
2428665	Imazapyr	12.1	Spike	P	0 - 30
2428665	Imidacloprid	14.0	Spike	P	0 - 30
2428665	Linuron	13.8	Spike	P	0 - 30
2428665	Mandestrobin	18.7	Spike	P	0 - 30
2428665	MCP	4.26	Spike	P	0 - 30
2428665	Naproxen	2.50	Spike	P	0 - 30
2428665	Primidone	3.06	Spike	P	0 - 30
2428665	Pyraclostrobin	20.1	Spike	P	0 - 30
2428665	Silvex	0.709	Spike	P	0 - 30
2428665	Thiamethoxam	19.8	Spike	P	0 - 30
2428665	Tolfenpyrad	17.4	Spike	P	0 - 30
2428665	Triclopyr	3.93	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P433621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429139	Acesulfame K	0.818	Spike	P	0 - 30
2429139	AMPA	3.01	Spike	P	0 - 30
2429139	Endothall	5.59	Spike	P	0 - 30
2429139	Glufosinate	1.94	Spike	P	0 - 30
2429139	Glyphosate	6.79	Spike	P	0 - 30
2429139	Sucralose	6.38	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P433672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429321	Total Alkalinity	0.483	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P433673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429331	Total Alkalinity	1.15	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P433933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428838	TDS	2.32	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P433934

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429395	TDS	8.55	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P433676

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429321	Fluoride	0.960	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P433677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429331	Fluoride	1.00	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P433659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429301	Organic Carbon	2.01	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P433755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429330	Organic Carbon	1.32	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2429138
Field Sample ID: G3SD0078

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.4	P	37 - 129
EPA 8270E	Decachlorobiphenyl	76.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	52.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	82.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	64.5	P	28 - 102
EPA 8276	PCNB	82.6	P	49 - 115

Lab Sample ID: 2429139
Field Sample ID: G3SD0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	47.6	P	30 - 160
EPA 8321B	Diuron-d6	31.4	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.5	P	30 - 160
EPA 8321B	Primidone-d5	68.6	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120899

Included Lab Sample IDs: 2429128, 2429130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A120900

Included Lab Sample IDs: 2429128, 2429130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	97.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A120947

Included Lab Sample IDs: 2429131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	99.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A120949

Included Lab Sample IDs: 2429128, 2429130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.9	96.6	P/P	90 - 110
Total Alkalinity	94.0	98.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120949

Included Lab Sample IDs: 2429128, 2429130

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120956

Included Lab Sample IDs: 2429131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120962

Included Lab Sample IDs: 2429129

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	96.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120965

Included Lab Sample IDs: 2429131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120965

Included Lab Sample IDs: 2429131

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

Reference Method: SM 5310 B-2011

Run ID: A120987

Included Lab Sample IDs: 2429129

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120988

Included Lab Sample IDs: 2429129, 2429131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	98.6	P/P	90 - 110
Kjeldahl Nitrogen	99.5	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120998

Included Lab Sample IDs: 2429129, 2429131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	98.9	P/P	90 - 110
Ammonia-N	98.9	97.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A121006

Included Lab Sample IDs: 2429138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	101		P	80 - 120

Reference Method: EPA 8321B

Run ID: A121009

Included Lab Sample IDs: 2429139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	80.6	86.9	P/P	60 - 160
Endothall	108	103	P/P	60 - 160
Glufosinate	95.4	99.3	P/P	60 - 160
Glyphosate	103	105	P/P	60 - 160

Reference Method: EPA 8270E

Run ID: A121013

Included Lab Sample IDs: 2429138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	88.8		P	80 - 120
Alpha-BHC	117		P	80 - 120
Alpha-Chlordane	99.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A121013
Included Lab Sample IDs: 2429138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-BHC	96.8		P	80 - 120
Beta-Cyfluthrin	104		P	80 - 120
Bifenthrin	102		P	80 - 120
Carbophenothion	98.7		P	80 - 120
Chlorothalonil	104		P	80 - 120
Cis-Nonachlor	95.8		P	80 - 120
Cypermethrin	91.2		P	80 - 120
Dacthal	93.7		P	80 - 120
DDD-p,p'	89.8		P	80 - 120
DDE-p,p'	97.5		P	80 - 120
DDT-p,p'	95.9		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	113		P	80 - 120
Dichlobenil	98.7		P	80 - 120
Dicofol	90.5		P	80 - 120
Dieldrin	105		P	80 - 120
Endosulfan I	96.1		P	80 - 120
Endosulfan II	95.0		P	80 - 120
Endosulfan Sulfate	94.6		P	80 - 120
Endrin	98.3		P	80 - 120
Endrin Aldehyde	88.1		P	80 - 120
Endrin Ketone	99.5		P	80 - 120
Esfenvalerate	108		P	80 - 120
Ethalfuralin	88.3		P	80 - 120
Fenpropathrin	93.6		P	80 - 120
Gamma-BHC	93.2		P	80 - 120
Gamma-Chlordane	95.4		P	80 - 120
Heptachlor	103		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	84.0		P	80 - 120
Kepone	81.6		P	80 - 120
Lambda-Cyhalothrin	102		P	80 - 120
Methoprene	94.6		P	80 - 120
Methoxychlor	96.9		P	80 - 120
MGK-264	98.4		P	80 - 120
Mirex	106		P	80 - 120
Oxychlordane	98.3		P	80 - 120
Permethrin	107		P	80 - 120
Phenothrin	106		P	80 - 120
Piperonyl Butoxide	93.3		P	80 - 120
Prallethrin	92.6		P	80 - 120
Tau-Fluvalinate	103		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	104		P	80 - 120
Triclosan Methyl	97.5		P	80 - 120
Trifluralin	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A121022
Included Lab Sample IDs: 2429139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	108	P/P	60 - 160
Sucralose	84.5	98.6	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A121030
Included Lab Sample IDs: 2429138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	94.3		P	80 - 120
PCB-1260	102		P	80 - 120

Reference Method: EPA 8321B
Run ID: A121038
Included Lab Sample IDs: 2429139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.2	93.2	P/P	50 - 150
2,4,5-T	100	87.5	P/P	50 - 150
Acetaminophen	90.4	94.9	P/P	60 - 160
Acetamiprid	110	111	P/P	50 - 150
Afidopyropen	81.3	153*	P/F	50 - 150
Benzovindiflupyr	121	108	P/P	50 - 150
Carbamazepine	94.4	113	P/P	60 - 150
Clothianidin	87.0	109	P/P	60 - 150
Dinotefuran	131	141	P/P	50 - 150
Diuron	75.0	93.6	P/P	60 - 160
Fenuron	111	119	P/P	60 - 150
Fluridone	103	105	P/P	60 - 160
Hydrocodone	117	114	P/P	60 - 150
Ibuprofen	118	133	P/P	50 - 160
Imazapyr	98.3	97.1	P/P	50 - 150
Imidacloprid	97.3	91.5	P/P	60 - 150
Linuron	154*	154*	F/F	60 - 150
Mandestrobin	111	95.1	P/P	50 - 150
MCPP	98.3	85.3	P/P	50 - 150
Naproxen	74.9	112	P/P	50 - 160
Primidone	102	112	P/P	60 - 150
Pyraclostrobin	72.6	121	P/P	60 - 150
Silvex	105	103	P/P	50 - 150
Thiamethoxam	95.9	99.1	P/P	50 - 150
Tolfenpyrad	83.7	98.5	P/P	60 - 150
Triclopyr	84.3	87.5	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A121180
Included Lab Sample IDs: 2429129

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121182

Included Lab Sample IDs: 2429130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.0	99.1	P/P	90 - 110
Sulfate	97.2	98.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121339

Included Lab Sample IDs: 2429128

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	109	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A21056

Included Lab Sample IDs: 2429139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	101	114	P/P	50 - 160

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	97.3				0.585	
EPA 180.1 Rev. 2.0	Turbidity	99.1				9.55	
EPA 300.0 Rev. 2.1	Chloride	98.5	101	102		0.114	
	Chloride	101	103	103		0.243	
	Sulfate	95.9	97.8	98.3		0.550	
	Sulfate	101	101	102		0.572	
EPA 350.1 Rev. 2.0	Ammonia-N	96.2	100	101			0.605
	Ammonia-N	95.6	97.0	96.6			0.369
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110	88.5	96.6			5.98
	Kjeldahl Nitrogen	102	100	99.9			0.0388
EPA 353.2 Rev. 2.0	NO2NO3-N	103	107	106			0.468
	NO2NO3-N	104	107	107			0.0
EPA 365.1 Rev. 2.0	Total-P	99.1	92.4	95.5			2.69
	Total-P	102					0.388
EPA 8270E	Aldrin	44.8	53.4	41.6			24.9
	Alpha-BHC	105	93.8	98.8			5.19
	Alpha-Chlordane	60.3	68.2	61.1			11.0
	Beta-BHC	65.7	85.2	69.5			20.3
	Beta-Cyfluthrin	79.2	93.0	81.1			13.7
	Bifenthrin	52.6	80.3	73.9			8.21
	Carbophenothion	56.0	53.7	45.4			16.8
	Chlorothalonil	52.2	70.7	63.9			10.0
	Cis-Nonachlor	61.4	83.3	69.9			17.6
	Cypermethrin	74.5	69.2	67.8			1.94
	Dacthal	73.8	85.6	63.4			29.8
	DDD-p,p'	60.1	70.3	64.7			8.31
	DDE-p,p'	61.2	69.1	59.9			14.3
	DDT-p,p'	67.2	66.9	67.3			0.646
	Delta-BHC	67.2	93.2	89.2			4.35
	Deltamethrin	99.5	103	89.8			13.7
	Dichlobenil	63.6	54.6	47.5			14.0
	Dicofol	67.4	73.6	70.1			4.79
	Dieldrin	65.5	72.3	62.1			14.1
	Endosulfan I	65.5	86.1	73.6			15.7
	Endosulfan II	77.6	72.8	53.0			31.4
	Endosulfan Sulfate	71.2	54.9	51.3			6.73
	Endrin	67.0	76.3	63.2			18.8
	Endrin Aldehyde	66.2	70.5	61.8			13.2
	Endrin Ketone	79.7	81.5	79.0			3.13
	Esfenvalerate	84.0	117	104			11.6
	Ethalfuralin	52.1	72.2	61.5			15.9
	Fenpropathrin	54.3	76.2	79.9			4.74
	Gamma-BHC	68.0	83.8	64.1			26.7
	Gamma-Chlordane	60.2	63.4	56.8			11.0
	Heptachlor	59.4	72.0	59.6			18.9
	Heptachlor Epoxide	71.6	88.2	81.1			8.38
	Hexachlorobenzene	46.6	55.8	50.0			10.9
	Kepone	40.5	42.1	34.0			21.2
	Lambda-Cyhalothrin	69.2	91.0	91.0			0.0390
	Methoprene	49.6	66.9	65.0			2.91
	Methoxychlor	75.1	64.6	62.2			3.79
	MGK-264	82.6	73.2	68.2			7.14
	Mirex	57.8	79.0	67.8			15.2
	Oxychlordane	65.1	71.3	69.6			2.48

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	PCB-1016	56.5	60.0	59.6			0.635
	PCB-1260	71.1	66.7	66.0			1.05
	Permethrin	72.1	77.5	56.6			31.1
	Phenothrin	51.8	90.2	78.4			14.0
	Piperonyl Butoxide	86.6	114	118			2.69
	Prallethrin	65.9	92.0	92.8			0.914
	Tau-Fluvalinate	70.8	99.1	108			8.81
	Tetramethrin	80.4	99.8	102			1.99
	Trans-Nonachlor	69.6	64.2	52.7			19.8
	Triclosan Methyl	60.7	70.6	58.6			18.6
	Trifluralin	73.0	60.8	64.7			6.22
EPA 8276	Chlordane	79.1	71.6	74.9			4.47
	Toxaphene	88.7	86.5	83.7			3.32
EPA 8321B	2,4-D	78.8					9.70
	2,4,5-T	81.6	114	99.8			12.9
	Acesulfame K	101	155	157			0.818
	Acetaminophen	71.6	79.6	84.5			5.99
	Acetamiprid	85.6	40.5	44.6			9.79
	Afidopyropen	88.6	51.9	92.8			56.6
	AMPA	81.6	49.0	51.3			3.01
	Bentazon	118	81.7	66.0			12.7
	Benzovindiflupyr	61.0	52.1	66.6			24.4
	Carbamazepine	67.9	36.7	40.3			9.33
	Clothianidin	87.2					2.54
	Dinotefuran	109	80.2	77.0			4.05
	Diuron	61.8	36.9	38.7			4.64
	Endothall	103	109	103			5.59
	Fenuron	95.7	49.5	50.3			1.61
	Fluridone	97.4	56.7	72.9			24.9
	Glufosinate	98.0	88.1	86.4			1.94
	Glyphosate	114	95.8	121			6.79
	Hydrocodone	111	56.9	57.8			1.57
	Ibuprofen	69.4	68.2	69.4			1.69
	Imazapyr	100	90.9	74.9			12.1
	Imidacloprid	84.0					14.0
	Linuron	71.9	62.6	54.5			13.8
	Mandestrobin	94.6	68.8	83.0			18.7
	MCPP	90.3	107	111			4.26
	Naproxen	66.6	65.2	66.8			2.50
	Primidone	85.4	72.2	74.4			3.06
	Pyraclostrobin	75.8	55.4	67.9			20.1
	Silvex	93.2	101	102			0.709
	Sucralose	93.2	95.0	102			6.38
	Thiamethoxam	82.7	60.6	73.9			19.8
	Tolfenpyrad	74.0	72.2	60.6			17.4
	Triclopyr	85.0	107	111			3.93
SM 2320 B-2011	Total Alkalinity	96.6				0.483	
	Total Alkalinity	98.1				1.15	
SM 2540 C-2015	TDS	103				2.32	
	TDS	94.5				8.55	
SM 2540 D-2015	TSS	91.4					
	TSS	91.4					
SM 4500-F- C-2011	Fluoride	99.8	98.3	99.7			0.960
	Fluoride	101	98.1	99.6			1.00

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 5310 B-2011	Organic Carbon	97.0	96.3	98.9		2.01
	Organic Carbon	95.2	90.6	92.2		1.32

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2429128, 2429130
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2429128, 2429130
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2429128, 2429130
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2429128, 2429130
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2429129, 2429131
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2429129, 2429131
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2429129, 2429131
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2429129, 2429131
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2429138
EPA 8270E	PCBs in water matrices by GC/MS/MS	2429138
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2429138
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2429139
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2429139
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2429128, 2429130
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2429128, 2429130
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2429128, 2429130
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2429128, 2429130
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2429129, 2429131

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	08/08/2023			08/08/2023 15:15	Anna M. Plaviak	2429128
	08/08/2023			08/08/2023 15:16	Anna M. Plaviak	2429130
EPA 180.1 Rev. 2.0	08/08/2023			08/08/2023 13:03	Alexis Price	2429128, 2429130
EPA 300.0 Rev. 2.1	08/08/2023			08/23/2023 18:44	James L Waggeberby	2429130
	08/08/2023			08/29/2023 07:18	James L Waggeberby	2429128
EPA 350.1 Rev. 2.0	08/08/2023			08/11/2023 15:06	Ping Hua	2429129
	08/08/2023			08/11/2023 15:27	Ping Hua	2429131
EPA 351.2 Rev. 2.0	08/08/2023	08/09/2023 12:44	Simonne.V. Calhoun	08/11/2023 10:20	Samantha L Bates	2429131
	08/08/2023	08/09/2023 12:44	Simonne.V. Calhoun	08/11/2023 11:31	Samantha L Bates	2429129
EPA 353.2 Rev. 2.0	08/08/2023			08/10/2023 10:01	Beverly Y. Sanders	2429131
	08/08/2023			08/21/2023 15:55	Beverly Y. Sanders	2429129
EPA 365.1 Rev. 2.0	08/08/2023	08/09/2023 14:50	Simonne.V. Calhoun	08/10/2023 10:54	Simonne.V. Calhoun	2429129
	08/08/2023	08/09/2023 14:50	Simonne.V. Calhoun	08/10/2023 14:32	Simonne.V. Calhoun	2429131
EPA 8270E	08/08/2023	08/08/2023 11:00	Rasheda Ghaffari	08/11/2023 05:06	Julie Wi	2429138
	08/08/2023	08/08/2023 11:00	Rasheda Ghaffari	08/11/2023 22:46	Vandana T. Nagar	2429138
EPA 8276	08/08/2023	08/08/2023 11:00	Rasheda Ghaffari	08/12/2023 09:22	Arthur Maknenko	2429138
EPA 8321B	08/08/2023	08/09/2023 09:00	Hoor Shaik	08/15/2023 02:45	Juyoung Kim	2429139
	08/08/2023	08/09/2023 09:00	Hoor Shaik	08/16/2023 03:12	Juyoung Kim	2429139
	08/08/2023	08/10/2023 11:00	Hana Lee	08/10/2023 12:00	Tae K Lee	2429139
	08/08/2023	08/10/2023 11:00	Hana Lee	08/14/2023 14:04	Tae K Lee	2429139
	08/08/2023	08/10/2023 11:00	Tae K Lee	08/14/2023 14:04	Tae K Lee	2429139
	08/08/2023			08/10/2023 01:42	Dale L. Simmons	2429130
SM 2320 B-2011	08/08/2023			08/10/2023 08:05	Dale L. Simmons	2429128
SM 2540 C-2015	08/08/2023			08/09/2023 15:59	Yijie Li	2429128, 2429130
SM 2540 D-2015	08/08/2023			08/09/2023 15:59	Yijie Li	2429128, 2429130
SM 4500-F- C-2011	08/08/2023			08/10/2023 01:42	Dale L. Simmons	2429130
	08/08/2023			08/10/2023 06:47	Dale L. Simmons	2429128
SM 5310 B-2011	08/08/2023			08/10/2023 00:24	Elise M. Gillis	2429131
	08/08/2023			08/11/2023 05:11	Elise M. Gillis	2429129