

Chemical Analysis Report

NE-DIST-2023-08-11-01

Florida DEP Laboratory
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DOH Accreditation E31780

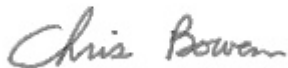
Event Description: **LSJR South West 2023**
Request ID: **RQ-2023-08-07-70**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 18-SEP-2023 11:53



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: BLACK CR SOUTH FORK AT CR218

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

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430510	DEP SOP: NU-094-1	Color (true)	350		PCU	P433772	
	EPA 180.1 Rev. 2.0	Turbidity	2.3	A	NTU	P433780	
	EPA 300.0 Rev. 2.1	Chloride	7.9		mg Cl/L	P434296	
		Sulfate	2.0		mg SO4/L	P434081	
	SM 2320 B-2011	Total Alkalinity	1.8	I	mg CaCO3/L	P434012	
	SM 2540 C-2015	TDS	67		mg/L	P434221	
	SM 2540 D-2015	TSS	3	I	mg/L	P434222	
2430511	SM 4500-F- C-2011	Fluoride	0.072	I	mg F/L	P434016	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P434129	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P433818	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P434401	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P433844	
2430531	SM 5310 B-2011	Organic Carbon	28		mg C/L	P433847	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P433848	
		Acesulfame K	0.10	U	ug/L	P433724	
		2,4,5-T	0.0040	U	ug/L	P433848	
		AMPA	0.10	U	ug/L	P433724	
		Acetaminophen	0.0080	U	ug/L	P433848	
		Acetamiprid	0.0020	U	ug/L	P433848	
		Endothall	0.25	U	ug/L	P433724	
		Glufosinate	0.10	U	ug/L	P433724	
		Glyphosate	0.10	U	ug/L	P433724	
		Afidopyropen	0.0020	U	ug/L	P433848	
		Bentazon	8.0E-04	U	ug/L	P433848	
		Sucralose	0.16		ug/L	P433724	
		Benzovindiflupyr	0.0020	U	ug/L	P433848	
		Carbamazepine	8.0E-04	U	ug/L	P433848	
		Clothianidin	0.0020	U	ug/L	P433848	
		Dinotefuran	0.0020	U	ug/L	P433848	
		Diuron	0.0020	U	ug/L	P433848	
		Fenuron	0.032	U	ug/L	P433848	
		Fluridone	8.0E-04	U	ug/L	P433848	
		Imazapyr	0.015	I	ug/L	P433848	
		Hydrocodone	0.0020	U	ug/L	P433848	
		Ibuprofen	0.20	U	ug/L	P433848	
		Imidacloprid	0.0020	U	ug/L	P433848	
		Linuron	0.0040	U	ug/L	P433848	
		Mandestrobin	0.0020	U	ug/L	P433848	
		MCPP	0.0040	U	ug/L	P433848	
		Naproxen	0.0080	U	ug/L	P433848	
		Primidone	0.0040	U	ug/L	P433848	
		Pyraclostrobin	0.0020	U	ug/L	P433848	
		Silvex	0.0040	U	ug/L	P433848	MS
		Thiamethoxam	0.0020	U	ug/L	P433848	

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430531	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P433848	
		Triclopyr	0.0040	U	ug/L	P433848	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: 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 a high concentration of some parameters in the spiked sample.

Sample Location: LITTLE BLACK CREEK AT SR 220

Collection Date/Time: 08/10/2023 11:50

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430530	EPA 8270E	Aldrin	0.66	UQ	ng/L	P434297	
		Alpha-BHC	0.10	UQ	ng/L	P434297	
		Alpha-Chlordane	0.20	UQ	ng/L	P434297	
		PCB-1016	2.1	U	ng/L	P433861	
		Beta-BHC	0.14	IQ	ng/L	P434680	
		PCB-1221	2.1	U	ng/L	P433861	
		Beta-Cyfluthrin	1.3	UQ	ng/L	P434297	
		PCB-1232	2.1	U	ng/L	P433861	
		Bifenthrin	0.51	UQ	ng/L	P434297	
		PCB-1242	2.1	U	ng/L	P433861	
		PCB-1248	2.1	U	ng/L	P433861	
		Chlorothalonil	3.7	UQ	ng/L	P434297	
		PCB-1254	2.1	U	ng/L	P433861	
		Cis-Nonachlor	0.20	UQ	ng/L	P434297	
		PCB-1260	2.1	U	ng/L	P433861	
		Cypermethrin	1.5	UQ	ng/L	P434297	
		Dacthal	0.15	UQ	ng/L	P434297	
		DDD-p,p'	0.26	UQ	ng/L	P434680	
		DDE-p,p'	0.20	UQ	ng/L	P434297	
		DDT-p,p'	2.3	IQ	ng/L	P434680	
		Delta-BHC	0.41	UQ	ng/L	P434297	
		Deltamethrin	1.3	UQ	ng/L	P434297	
		Dichlobenil	0.25	UQ	ng/L	P434297	
		Dicofol	1.3	UQ	ng/L	P434297	
		Dieldrin	0.41	UQ	ng/L	P434297	
		Endosulfan I	0.41	UQ	ng/L	P434297	
		Endosulfan II	0.92	UQ	ng/L	P434297	
		Endosulfan Sulfate	0.31	UQ	ng/L	P434297	
		Endrin	0.92	UQ	ng/L	P434297	
		Endrin Aldehyde	0.76	UQ	ng/L	P434297	
		Endrin Ketone	0.41	UQ	ng/L	P434297	
		Esfenvalerate	0.76	UQ	ng/L	P434297	MS
		Ethalfuralin	0.15	UQ	ng/L	P434297	
		Fenpropathrin	0.25	UQ	ng/L	P434297	
		Gamma-BHC	0.13	UQ	ng/L	P434297	
		Gamma-Chlordane	0.20	IQ	ng/L	P434297	
		Heptachlor	0.20	UQ	ng/L	P434297	
		Heptachlor Epoxide	0.25	UQ	ng/L	P434297	
		Hexachlorobenzene**	1.0	UQ	ng/L	P434297	
		Kepone	14	UQ	ng/L	P434297	
		Lambda-Cyhalothrin	0.76	UQ	ng/L	P434297	
		Methoprene	0.76	UQ	ng/L	P434297	
		Methoxychlor	0.31	UQ	ng/L	P434297	
		MGK-264	0.20	UQ	ng/L	P434297	

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430530	EPA 8270E	Mirex	0.36	UQ	ng/L	P434297	
		Oxychlordane	0.31	UQ	ng/L	P434297	
		Permethrin	1.6	UQ	ng/L	P434297	
		Phenothrin	0.92	UQ	ng/L	P434297	
		Piperonyl Butoxide	0.15	UQ	ng/L	P434297	
		Prallethrin	2.0	UQJ	ng/L	P434297	CCV
		Tau-Fluvalinate	0.25	UQ	ng/L	P434297	MS
		Tetramethrin	0.76	UQ	ng/L	P434297	
		Trans-Nonachlor	0.20	UQ	ng/L	P434297	
		Triclosan Methyl	0.15	UQ	ng/L	P434297	
		Trifluralin	0.20	UQ	ng/L	P434297	
	EPA 8276	Chlordane	2.1	U	ng/L	P433861	
		Toxaphene	15	U	ng/L	P433861	

Ref. Method and Comment:
EPA 8270E: Sample expired for preparation due to need for re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

**Sample Location: SWIMMING PEN CREEK AT EAGLES CREEK
DR**

Collection Date/Time: 08/10/2023 12:15

Field ID: G2NE1188

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430532	EPA 8321B	2,4-D	0.23		ug/L	P433848	
		Acesulfame K	0.10	U	ug/L	P433724	
		2,4,5-T	0.0040	U	ug/L	P433848	
		AMPA	1.1		ug/L	P433724	
		Acetaminophen	0.0080	U	ug/L	P433848	
		Acetamiprid	0.0020	U	ug/L	P433848	
		Endothall	0.25	U	ug/L	P433724	
		Glufosinate	0.10	U	ug/L	P433724	
		Glyphosate	1.6		ug/L	P433724	
		Afidopyropen	0.0020	U	ug/L	P433848	
		Bentazon	0.12		ug/L	P433848	
		Sucralose	5.1		ug/L	P433724	
		Benzovindiflupyr	0.0020	U	ug/L	P433848	
		Carbamazepine	0.0015	I	ug/L	P433848	
		Clothianidin	0.12		ug/L	P433848	
		Dinotefuran	0.0020	U	ug/L	P433848	
		Diuron	0.0071	I	ug/L	P433848	
		Fenuron	0.032	U	ug/L	P433848	
		Fluridone	0.0048		ug/L	P433848	
		Imazapyr	6.3		ug/L	P433848	
		Hydrocodone	0.0020	U	ug/L	P433848	
		Ibuprofen	0.20	U	ug/L	P433848	
		Imidacloprid	0.017		ug/L	P433848	
		Linuron	0.0040	U	ug/L	P433848	
		Mandestrobin	0.0020	U	ug/L	P433848	
		MCPP	0.0040	U	ug/L	P433848	
		Naproxen	0.0080	U	ug/L	P433848	
		Primidone	0.012	I	ug/L	P433848	
		Pyraclostrobin	0.0020	U	ug/L	P433848	
		Silvex	0.0040	UJ	ug/L	P433848	MS
		Thiamethoxam	0.0099		ug/L	P433848	
		Tolfenpyrad	0.0020	U	ug/L	P433848	
		Triclopyr	0.0040	U	ug/L	P433848	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433772

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433780

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434081

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

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 350.1 Rev. 2.0
Batch ID: P434129

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433818

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434401

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433844

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

Reference Method: EPA 8270E
Batch ID: P433861

Component	Result	Code	Units
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433861

Component	Result	Code	Units
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

Reference Method: EPA 8270E

Batch ID: P434297

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-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
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
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434297

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434297

Component	Result	Code	Units
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E
Batch ID: P434680

Component	Result	Code	Units
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDT-p,p'	0.80	U	ng/L
DDT-p,p'	0.80	U	ng/L

Reference Method: EPA 8276
Batch ID: P433861

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: P433724

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: P433848

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	0.20	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P433848

Component	Result	Code	Units
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P434012

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

Reference Method: SM 2540 C-2015
Batch ID: P434221

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P434222

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P434016

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P433847

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: P433772

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.5		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434081

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.1		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 350.1 Rev. 2.0
Batch ID: P434129

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433818

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434401

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433844

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

Reference Method: EPA 8270E
Batch ID: P433861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	64.9		P	45 - 107
PCB-1260	62.8		P	40 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P434297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	55.1		P	30 - 96.0
Alpha-BHC	79.5		P	70 - 109
Alpha-Chlordane	70.3		P	45 - 107
Beta-Cyfluthrin	83.6		P	17 - 141
Bifenthrin	69.8		P	10 - 113
Chlorothalonil	81.5		P	26 - 180
Cis-Nonachlor	80.4		P	37 - 102
Cypermethrin	72.0		P	20 - 133
Dacthal	84.7		P	69 - 114
DDE-p,p'	54.4		P	42 - 106
Delta-BHC	90.9		P	67 - 144
Deltamethrin	110		P	15 - 149
Dichlobenil	72.5		P	46 - 117
Dicofol	71.2		P	34 - 114
Dieldrin	55.7		P	50 - 108
Endosulfan I	70.4		P	55 - 104
Endosulfan II	80.2		P	51 - 111
Endosulfan Sulfate	71.5		P	56 - 121
Endrin	54.7		P	10 - 106
Endrin Aldehyde	51.4		P	34 - 114
Endrin Ketone	70.0		P	63 - 177
Esfenvalerate	138		P	29 - 143
Ethalfuralin	75.2		P	46 - 96.0
Fenpropathrin	67.5		P	28 - 115
Gamma-BHC	81.3		P	65 - 121
Gamma-Chlordane	59.6		P	39 - 103
Heptachlor	72.6		P	39 - 94.0
Heptachlor Epoxide	68.0		P	54 - 104
Hexachlorobenzene	76.6		P	36 - 100
Kepone	79.9		P	10 - 225
Lambda-Cyhalothrin	73.0		P	10 - 135
Methoprene	57.5		P	10 - 109
Methoxychlor	68.7		P	52 - 112
MGK-264	84.4		P	44 - 117
Mirex	49.4		P	20 - 90.0
Oxychlordane	94.4		P	44 - 102
Permethrin	57.4		P	18 - 135
Phenothrin	75.5		P	10 - 102
Piperonyl Butoxide	109		P	28 - 156
Prallethrin	80.8		P	28 - 113
Tau-Fluvalinate	118		P	10 - 123
Tetramethrin	77.4		P	18 - 158
Trans-Nonachlor	62.3		P	39 - 104
Triclosan Methyl	62.8		P	54 - 108
Trifluralin	78.2		P	46 - 97.0

Reference Method: EPA 8270E
Batch ID: P434680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-BHC	90.9		P	64 - 138
DDD-p,p'	78.7		P	42 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P434680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDT-p,p'	80.9		P	42 - 107

Reference Method: EPA 8276
Batch ID: P433861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	83.7		P	52 - 117
Toxaphene	85.4		P	44 - 125

Reference Method: EPA 8321B
Batch ID: P433724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	110		P	40 - 150
AMPA	81.8		P	40 - 150
Endothall	97.7		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	120		P	40 - 150
Sucralose	92.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433848

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.3		P	30 - 160
2,4,5-T	103		P	30 - 160
Acetaminophen	82.2		P	30 - 160
Acetamiprid	90.5		P	30 - 160
Afidopyropen	30.6		P	30 - 160
Bentazon	115		P	30 - 160
Benzovindiflupyr	93.4		P	30 - 160
Carbamazepine	100		P	30 - 160
Clothianidin	89.0		P	30 - 160
Dinotefuran	107		P	30 - 160
Diuron	92.7		P	30 - 160
Fenuron	87.3		P	30 - 160
Fluridone	95.5		P	30 - 160
Hydrocodone	92.6		P	30 - 160
Ibuprofen	66.5		P	30 - 160
Imazapyr	98.9		P	30 - 160
Imidacloprid	98.0		P	30 - 160
Linuron	82.6		P	30 - 160
Mandestrobin	96.7		P	30 - 160
MCPP	105		P	30 - 160
Naproxen	81.7		P	30 - 160
Primidone	88.0		P	30 - 160
Pyraclostrobin	94.1		P	30 - 160
Silvex	109		P	30 - 160
Thiamethoxam	104		P	30 - 160
Tolfenpyrad	64.2		P	30 - 160
Triclopyr	95.4		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P434012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.2		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P434221

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P434222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P434016

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

Reference Method: SM 5310 B-2011
Batch ID: P433847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434081

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430345	Sulfate	99.2		P	90 - 110
2430405	Sulfate	96.4		P	90 - 110

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 350.1 Rev. 2.0
Batch ID: P434129

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430511	Ammonia-N	101	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430550	Kjeldahl Nitrogen	103	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430465	NO2NO3-N	97.8	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433844

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430465	Total-P	102	106	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P433861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431296	PCB-1016	75.7	81.2	P/P	45 - 107
2431296	PCB-1260	63.4	65.8	P/P	40 - 112

Reference Method: EPA 8270E
Batch ID: P434297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433175	Aldrin	51.0	50.1	P/P	24 - 81.0
2433175	Alpha-BHC	65.7	67.7	P/P	65 - 110
2433175	Alpha-Chlordane	69.3	68.6	P/P	43 - 119
2433175	Beta-Cyfluthrin	105	117	P/P	27 - 165
2433175	Bifenthrin	103	98.0	P/P	17 - 117
2433175	Chlorothalonil	86.8	89.9	P/P	10 - 255
2433175	Cis-Nonachlor	69.0	80.0	P/P	34 - 98.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P434297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433175	Cypermethrin	105	117	P/P	25 - 143
2433175	Dacthal	69.0	62.0	P/P	55 - 139
2433175	DDE-p,p'	57.0	52.1	P/P	35 - 106
2433175	Delta-BHC	75.7	74.1	P/P	58 - 165
2433175	Deltamethrin	170	191	P/P	10 - 194
2433175	Dichlobenil	40.8	38.7	P/P	22 - 114
2433175	Dicofol	72.5	73.9	P/P	17 - 133
2433175	Dieldrin	54.5	51.3	P/P	45 - 129
2433175	Endosulfan I	70.3	61.5	P/P	49 - 104
2433175	Endosulfan II	53.1	55.0	P/P	37 - 117
2433175	Endosulfan Sulfate	60.4	53.0	P/P	38 - 128
2433175	Endrin	52.3	52.2	P/P	35 - 116
2433175	Endrin Aldehyde	41.4	19.1	P/P	19 - 108
2433175	Endrin Ketone	64.5	53.6	P/P	44 - 134
2433175	Esfenvalerate	165	180	P/F	27 - 176
2433175	Ethalfuralin	71.2	67.3	P/P	49 - 100
2433175	Fenpropathrin	79.8	72.8	P/P	34 - 117
2433175	Gamma-BHC	81.3	80.9	P/P	59 - 129
2433175	Gamma-Chlordane	71.0	65.1	P/P	33 - 107
2433175	Heptachlor	73.2	65.7	P/P	37 - 94.0
2433175	Heptachlor Epoxide	61.1	61.5	P/P	38 - 118
2433175	Hexachlorobenzene	69.0	64.5	P/P	35 - 97.0
2433175	Kepone	55.9	59.9	P/P	10 - 221
2433175	Lambda-Cyhalothrin	107	123	P/P	23 - 190
2433175	Methoprene	79.0	69.8	P/P	21 - 109
2433175	Methoxychlor	61.0	62.2	P/P	46 - 118
2433175	MGK-264	72.1	68.9	P/P	39 - 122
2433175	Mirex	51.1	53.5	P/P	25 - 90.0
2433175	Oxychlordane	85.7	87.5	P/P	42 - 100
2433175	Permethrin	101	91.8	P/P	33 - 181
2433175	Phenothrin	100	83.4	P/P	12 - 125
2433175	Piperonyl Butoxide	112	106	P/P	10 - 178
2433175	Prallethrin	74.4	68.4	P/P	24 - 122
2433175	Tau-Fluvalinate	152	171	F/F	13 - 151
2433175	Tetramethrin	89.1	87.1	P/P	16 - 172
2433175	Trans-Nonachlor	80.8	65.4	P/P	39 - 100
2433175	Triclosan Methyl	61.3	57.6	P/P	43 - 110
2433175	Trifluralin	78.4	71.9	P/P	45 - 94.0

Reference Method: EPA 8270E
Batch ID: P434680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435386	Beta-BHC	102	94.6	P/P	54 - 165
2435386	DDD-p,p'	83.9	74.3	P/P	30 - 109
2435386	DDT-p,p'	81.1	82.2	P/P	41 - 101

Reference Method: EPA 8276
Batch ID: P433861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431296	Chlordane	62.2	68.9	P/P	43 - 123

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P433861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431296	Toxaphene	73.3	76.2	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P433724

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430105	Acesulfame K	117	119	P/P	40 - 150
2430105	AMPA	95.8	106	P/P	40 - 150
2430105	Endothall	110	97.5	P/P	40 - 150
2430105	Glufosinate	96.1	95.3	P/P	40 - 150
2430105	Glyphosate	99.0	99.5	P/P	40 - 150
2430105	Sucralose	89.0	90.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433848

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430532	2,4,5-T	135	121	P/P	30 - 160
2430532	Acetaminophen	120	102	P/P	30 - 160
2430532	Acetamiprid	60.2	79.6	P/P	30 - 160
2430532	Afidopyropen	36.8	36.2	P/P	30 - 160
2430532	Benzovindiflupyr	84.9	84.4	P/P	30 - 160
2430532	Carbamazepine	72.0	81.9	P/P	30 - 160
2430532	Dinotefuran	92.4	103	P/P	30 - 160
2430532	Diuron	64.1	66.6	P/P	30 - 160
2430532	Fenuron	62.1	68.8	P/P	30 - 160
2430532	Fluridone	79.2	79.6	P/P	30 - 160
2430532	Hydrocodone	69.1	77.2	P/P	30 - 160
2430532	Ibuprofen	41.9	40.4	P/P	30 - 160
2430532	Imidacloprid	129	129	P/P	30 - 160
2430532	Linuron	58.4	60.9	P/P	30 - 160
2430532	Mandestrobin	85.6	85.8	P/P	30 - 160
2430532	MCPD	147	136	P/P	30 - 160
2430532	Naproxen	88.3	97.7	P/P	30 - 160
2430532	Primidone	98.6	96.9	P/P	30 - 160
2430532	Pyraclostrobin	92.4	91.4	P/P	30 - 160
2430532	Silvex	165	135	F/P	30 - 160
2430532	Thiamethoxam	94.8	104	P/P	30 - 160
2430532	Tolfenpyrad	64.3	61.9	P/P	30 - 160
2430532	Triclopyr	126	118	P/P	30 - 160

Reference Method: SM 5310 B-2011
Batch ID: P433847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430625	Organic Carbon	93.8	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430544	Color (true)	0.0426	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430510	Turbidity	1.72	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430345	Sulfate	0.836	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 350.1 Rev. 2.0
Batch ID: P434129

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430511	Ammonia-N	1.25	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430550	Kjeldahl Nitrogen	4.49	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430465	NO2NO3-N	1.69	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433844

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430465	Total-P	3.23	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P433861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431296	PCB-1016	6.98	Spike	P	0 - 25
2431296	PCB-1260	3.60	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P434297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433175	Aldrin	1.75	Spike	P	0 - 41
2433175	Alpha-BHC	2.98	Spike	P	0 - 25
2433175	Alpha-Chlordane	0.985	Spike	P	0 - 32
2433175	Beta-Cyfluthrin	11.2	Spike	P	0 - 43
2433175	Bifenthrin	4.66	Spike	P	0 - 52
2433175	Chlorothalonil	3.52	Spike	P	0 - 82
2433175	Cis-Nonachlor	14.8	Spike	P	0 - 33
2433175	Cypermethrin	10.7	Spike	P	0 - 51
2433175	Dacthal	10.7	Spike	P	0 - 27
2433175	DDE-p,p'	9.06	Spike	P	0 - 31
2433175	Delta-BHC	2.10	Spike	P	0 - 35
2433175	Deltamethrin	11.6	Spike	P	0 - 100
2433175	Dichlobenil	5.37	Spike	P	0 - 40
2433175	Dicofol	1.86	Spike	P	0 - 37
2433175	Dieldrin	6.08	Spike	P	0 - 27
2433175	Endosulfan I	13.4	Spike	P	0 - 23
2433175	Endosulfan II	3.55	Spike	P	0 - 34
2433175	Endosulfan Sulfate	13.0	Spike	P	0 - 36
2433175	Endrin	0.280	Spike	P	0 - 45
2433175	Endrin Aldehyde	73.5	Spike	P	0 - 76
2433175	Endrin Ketone	18.5	Spike	P	0 - 43
2433175	Esfenvalerate	8.89	Spike	P	0 - 51
2433175	Ethalfuralin	5.65	Spike	P	0 - 22
2433175	Fenpropathrin	9.15	Spike	P	0 - 49
2433175	Gamma-BHC	0.488	Spike	P	0 - 28
2433175	Gamma-Chlordane	8.68	Spike	P	0 - 40
2433175	Heptachlor	10.7	Spike	P	0 - 29
2433175	Heptachlor Epoxide	0.678	Spike	P	0 - 33
2433175	Hexachlorobenzene	6.76	Spike	P	0 - 36
2433175	Kepone	6.85	Spike	P	0 - 85
2433175	Lambda-Cyhalothrin	14.3	Spike	P	0 - 55
2433175	Methoprene	12.4	Spike	P	0 - 53
2433175	Methoxychlor	1.88	Spike	P	0 - 50
2433175	MGK-264	4.64	Spike	P	0 - 43
2433175	Mirex	4.42	Spike	P	0 - 40
2433175	Oxychlordane	2.09	Spike	P	0 - 31
2433175	Permethrin	9.08	Spike	P	0 - 50
2433175	Phenothrin	18.1	Spike	P	0 - 58
2433175	Piperonyl Butoxide	5.28	Spike	P	0 - 100
2433175	Prallethrin	8.34	Spike	P	0 - 39
2433175	Tau-Fluvalinate	11.7	Spike	P	0 - 54
2433175	Tetramethrin	2.27	Spike	P	0 - 51
2433175	Trans-Nonachlor	21.1	Spike	P	0 - 39

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P434297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433175	Triclosan Methyl	6.29	Spike	P	0 - 31
2433175	Trifluralin	8.72	Spike	P	0 - 22

Reference Method: EPA 8270E
Batch ID: P434680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435386	Beta-BHC	7.27	Spike	P	0 - 33
2435386	DDD-p,p'	12.1	Spike	P	0 - 39
2435386	DDT-p,p'	1.36	Spike	P	0 - 29

Reference Method: EPA 8276
Batch ID: P433861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431296	Chlordane	10.2	Spike	P	0 - 28
2431296	Toxaphene	3.84	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P433724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430105	Acesulfame K	1.82	Spike	P	0 - 30
2430105	AMPA	10.2	Spike	P	0 - 30
2430105	Endothall	11.8	Spike	P	0 - 30
2430105	Glufosinate	0.823	Spike	P	0 - 30
2430105	Glyphosate	0.463	Spike	P	0 - 30
2430105	Sucralose	1.65	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P433848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430532	2,4-D	8.27	Spike	P	0 - 30
2430532	2,4,5-T	10.5	Spike	P	0 - 30
2430532	Acetaminophen	15.6	Spike	P	0 - 30
2430532	Acetamiprid	27.8	Spike	P	0 - 30
2430532	Afidopyropen	1.51	Spike	P	0 - 30
2430532	Bentazon	0.617	Spike	P	0 - 30
2430532	Benzovindiflupyr	0.673	Spike	P	0 - 30
2430532	Carbamazepine	11.8	Spike	P	0 - 30
2430532	Clothianidin	4.93	Spike	P	0 - 30
2430532	Dinotefuran	10.6	Spike	P	0 - 30
2430532	Diuron	3.38	Spike	P	0 - 30
2430532	Fenuron	10.2	Spike	P	0 - 30
2430532	Fluridone	0.426	Spike	P	0 - 30
2430532	Hydrocodone	11.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P433848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430532	Ibuprofen	3.64	Spike	P	0 - 30
2430532	Imazapyr	10.4	Spike	P	0 - 30
2430532	Imidacloprid	0.207	Spike	P	0 - 30
2430532	Linuron	4.26	Spike	P	0 - 30
2430532	Mandestrobin	0.152	Spike	P	0 - 30
2430532	MCPP	7.98	Spike	P	0 - 30
2430532	Naproxen	10.1	Spike	P	0 - 30
2430532	Primidone	1.52	Spike	P	0 - 30
2430532	Pyraclostrobin	1.10	Spike	P	0 - 30
2430532	Silvex	19.9	Spike	P	0 - 30
2430532	Thiamethoxam	8.40	Spike	P	0 - 30
2430532	Tolfenpyrad	3.91	Spike	P	0 - 30
2430532	Triclopyr	7.09	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P434012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431028	Total Alkalinity	1.87	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P434221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430405	TDS	7.73	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P434016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431028	Fluoride	0.511	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P433847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430625	Organic Carbon	1.72	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2430530
Field Sample ID: 20030667

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	94.4	P	37 - 129
EPA 8270E	Decachlorobiphenyl	82.6	P	26 - 115
EPA 8270E	Decachlorobiphenyl	101	P	26 - 115
EPA 8270E	Decachlorobiphenyl	111	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	80.6	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	56.8	P	29 - 95.0
EPA 8270E	Tetrachloro-m-xylene	64.6	P	29 - 95.0
EPA 8270E	Tetrachloro-m-xylene	70.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	75.4	P	28 - 102
EPA 8276	PCNB	72.5	P	49 - 115

Lab Sample ID: 2430531
Field Sample ID: 20030244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.5	P	30 - 160
EPA 8321B	Diuron-d6	49.1	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.2	P	30 - 160
EPA 8321B	Primidone-d5	72.4	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2430532
Field Sample ID: G2NE1188

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.7	P	30 - 160
EPA 8321B	Diuron-d6	43.4	P	30 - 160
EPA 8321B	Endothall-d6	114	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.9	P	30 - 160
EPA 8321B	Primidone-d5	82.4	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120994

Included Lab Sample IDs: 2430510

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120999

Included Lab Sample IDs: 2430510

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

Reference Method: EPA 8321B

Run ID: A121009

Included Lab Sample IDs: 2430531, 2430532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	87.2	76.0	P/P	60 - 160
Endothall	111	99.2	P/P	60 - 160
Glufosinate	86.4	96.6	P/P	60 - 160
Glyphosate	97.5	94.1	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A121022

Included Lab Sample IDs: 2430531, 2430532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	133	119	P/P	60 - 160
Sucralose	97.8	105	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121032

Included Lab Sample IDs: 2430511

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: A121033

Included Lab Sample IDs: 2430511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121052

Included Lab Sample IDs: 2430511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	96.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121057

Included Lab Sample IDs: 2430510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	98.8	98.7	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121111

Included Lab Sample IDs: 2430510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.6	97.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121111

Included Lab Sample IDs: 2430510

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

Reference Method: EPA 8321B

Run ID: A121151

Included Lab Sample IDs: 2430531, 2430532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.3	105	P/P	50 - 150
2,4,5-T	114	117	P/P	50 - 150
Acetaminophen	92.8	90.2	P/P	60 - 160
Acetamiprid	111	117	P/P	50 - 150
Afidopyropen	89.9	91.8	P/P	50 - 150
Bentazon	124	131	P/P	50 - 160
Bentazon	134	141	P/P	50 - 160
Benzovindiflupyr	109	114	P/P	50 - 160
Carbamazepine	118	120	P/P	60 - 150
Clothianidin	100	94.6	P/P	60 - 150
Dinotefuran	114	121	P/P	50 - 150
Diuron	114	117	P/P	60 - 160
Fenuron	101	103	P/P	60 - 150
Fluridone	106	106	P/P	60 - 160
Hydrocodone	110	107	P/P	60 - 150
Ibuprofen	80.2	134	P/P	50 - 160
Imazapyr	110	113	P/P	50 - 150
Imazapyr	133	143	P/P	50 - 150
Imidacloprid	106	104	P/P	60 - 150
Linuron	108	104	P/P	60 - 150
Mandestrobin	113	116	P/P	50 - 150
MCPP	103	113	P/P	50 - 150
Naproxen	114	77.1	P/P	50 - 160
Primidone	92.3	96.5	P/P	60 - 150
Pyraclostrobin	121	124	P/P	60 - 150
Silvex	114	111	P/P	50 - 150
Thiamethoxam	110	114	P/P	50 - 150
Tolfenpyrad	106	111	P/P	60 - 150
Triclopyr	97.2	103	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121154

Included Lab Sample IDs: 2430511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.7	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A121163

Included Lab Sample IDs: 2430530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	105		P	80 - 120
PCB-1260	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121182

Included Lab Sample IDs: 2430510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	98.0	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A121248

Included Lab Sample IDs: 2430530

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121266

Included Lab Sample IDs: 2430511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	98.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A121366

Included Lab Sample IDs: 2430530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.7		P	80 - 120
Alpha-BHC	92.8		P	80 - 120
Alpha-Chlordane	105		P	80 - 120
Beta-Cyfluthrin	89.6		P	80 - 120
Bifenthrin	107		P	80 - 120
Chlorothalonil	111		P	80 - 120
Cis-Nonachlor	103		P	80 - 120
Cypermethrin	93.9		P	80 - 120
Dacthal	102		P	80 - 120
DDE-p,p'	96.3		P	80 - 120
Delta-BHC	97.7		P	80 - 120
Deltamethrin	119		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	97.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A121366
Included Lab Sample IDs: 2430530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	94.5		P	80 - 120
Endosulfan I	99.1		P	80 - 120
Endosulfan II	92.7		P	80 - 120
Endosulfan Sulfate	103		P	80 - 120
Endrin	90.8		P	80 - 120
Endrin Aldehyde	110		P	80 - 120
Endrin Ketone	116		P	80 - 120
Esfenvalerate	115		P	80 - 120
Ethalfuralin	101		P	80 - 120
Fenpropathrin	113		P	80 - 120
Gamma-BHC	115		P	80 - 120
Gamma-Chlordane	94.4		P	80 - 120
Heptachlor	87.9		P	80 - 120
Heptachlor Epoxide	110		P	80 - 120
Hexachlorobenzene	99.6		P	80 - 120
Kepone	110		P	80 - 120
Lambda-Cyhalothrin	118		P	80 - 120
Methoprene	104		P	80 - 120
Methoxychlor	95.0		P	80 - 120
MGK-264	104		P	80 - 120
Mirex	92.7		P	80 - 120
Oxychlordane	110		P	80 - 120
Permethrin	87.2		P	80 - 120
Phenothrin	87.2		P	80 - 120
Piperonyl Butoxide	108		P	80 - 120
Prallethrin	122*		F	80 - 120
Tau-Fluvalinate	110		P	80 - 120
Tetramethrin	89.8		P	80 - 120
Trans-Nonachlor	117		P	80 - 120
Triclosan Methyl	95.0		P	80 - 120
Trifluralin	106		P	80 - 120

Reference Method: EPA 8270E
Run ID: A121512
Included Lab Sample IDs: 2430530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-BHC	116		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDT-p,p'	101		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)	99.5				0.0426	
EPA 180.1 Rev. 2.0	Turbidity	99.5				1.72	
EPA 300.0 Rev. 2.1	Chloride	98.5	101	102		0.114	
	Sulfate	97.1	99.2	96.4		0.836	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	101	99.4			1.25
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	103	109			4.49
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	97.8	99.8			1.69
EPA 365.1 Rev. 2.0	Total-P	103	102	106			3.23
EPA 8270E	Aldrin	55.1	51.0	50.1			1.75
	Alpha-BHC	79.5	65.7	67.7			2.98
	Alpha-Chlordane	70.3	69.3	68.6			0.985
	Beta-BHC	90.9	94.6	102			7.27
	Beta-Cyfluthrin	83.6	105	117			11.2
	Bifenthrin	69.8	103	98.0			4.66
	Chlorothalonil	81.5	86.8	89.9			3.52
	Cis-Nonachlor	80.4	69.0	80.0			14.8
	Cypermethrin	72.0	105	117			10.7
	Dacthal	84.7	69.0	62.0			10.7
	DDD-p,p'	78.7	83.9	74.3			12.1
	DDE-p,p'	54.4	57.0	52.1			9.06
	DDT-p,p'	80.9	81.1	82.2			1.36
	Delta-BHC	90.9	75.7	74.1			2.10
	Deltamethrin	110	170	191			11.6
	Dichlobenil	72.5	40.8	38.7			5.37
	Dicofol	71.2	72.5	73.9			1.86
	Dieldrin	55.7	54.5	51.3			6.08
	Endosulfan I	70.4	70.3	61.5			13.4
	Endosulfan II	80.2	53.1	55.0			3.55
	Endosulfan Sulfate	71.5	60.4	53.0			13.0
	Endrin	54.7	52.3	52.2			0.280
	Endrin Aldehyde	51.4	41.4	19.1			73.5
	Endrin Ketone	70.0	64.5	53.6			18.5
	Esfenvalerate	138	165	180			8.89
	Ethalfuralin	75.2	71.2	67.3			5.65
	Fenpropathrin	67.5	79.8	72.8			9.15
	Gamma-BHC	81.3	81.3	80.9			0.488
	Gamma-Chlordane	59.6	71.0	65.1			8.68
	Heptachlor	72.6	73.2	65.7			10.7
	Heptachlor Epoxide	68.0	61.1	61.5			0.678
	Hexachlorobenzene	76.6	69.0	64.5			6.76
	Kepone	79.9	55.9	59.9			6.85
	Lambda-Cyhalothrin	73.0	107	123			14.3
	Methoprene	57.5	79.0	69.8			12.4
	Methoxychlor	68.7	61.0	62.2			1.88
	MGK-264	84.4	72.1	68.9			4.64
	Mirex	49.4	51.1	53.5			4.42
	Oxychlordane	94.4	85.7	87.5			2.09
	PCB-1016	64.9	75.7	81.2			6.98
	PCB-1260	62.8	63.4	65.8			3.60
	Permethrin	57.4	101	91.8			9.08
	Phenothrin	75.5	100	83.4			18.1
	Piperonyl Butoxide	109	112	106			5.28
	Prallethrin	80.8	74.4	68.4			8.34
	Tau-Fluvalinate	118	152	171			11.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Tetramethrin	77.4	89.1	87.1			2.27
	Trans-Nonachlor	62.3	80.8	65.4			21.1
	Triclosan Methyl	62.8	61.3	57.6			6.29
	Trifluralin	78.2	78.4	71.9			8.72
EPA 8276	Chlordane	83.7	62.2	68.9			10.2
	Toxaphene	85.4	73.3	76.2			3.84
EPA 8321B	2,4-D	98.3					8.27
	2,4,5-T	103	135	121			10.5
	Acesulfame K	110	117	119			1.82
	Acetaminophen	82.2	120	102			15.6
	Acetamiprid	90.5	60.2	79.6			27.8
	Afidopyropen	30.6	36.8	36.2			1.51
	AMPA	81.8	95.8	106			10.2
	Bentazon	115					0.617
	Benzovindiflupyr	93.4	84.9	84.4			0.673
	Carbamazepine	100	72.0	81.9			11.8
	Clothianidin	89.0					4.93
	Dinotefuran	107	92.4	103			10.6
	Diuron	92.7	64.1	66.6			3.38
	Endothall	97.7	110	97.5			11.8
	Fenuron	87.3	62.1	68.8			10.2
	Fluridone	95.5	79.2	79.6			0.426
	Glufosinate	101	96.1	95.3			0.823
	Glyphosate	120	99.0	99.5			0.463
	Hydrocodone	92.6	69.1	77.2			11.0
	Ibuprofen	66.5	41.9	40.4			3.64
	Imazapyr	98.9					10.4
	Imidacloprid	98.0	129	129			0.207
	Linuron	82.6	58.4	60.9			4.26
	Mandestrobin	96.7	85.6	85.8			0.152
	MCPP	105	147	136			7.98
	Naproxen	81.7	88.3	97.7			10.1
	Primidone	88.0	98.6	96.9			1.52
	Pyraclostrobin	94.1	92.4	91.4			1.10
	Silvex	109	165	135			19.9
	Sucralose	92.4	89.0	90.6			1.65
	Thiamethoxam	104	94.8	104			8.40
	Tolfenpyrad	64.2	64.3	61.9			3.91
	Triclopyr	95.4	126	118			7.09
SM 2320 B-2011	Total Alkalinity	96.2				1.87	
SM 2540 C-2015	TDS	94.8				7.73	
SM 2540 D-2015	TSS	92.3					
SM 4500-F- C-2011	Fluoride	101					0.511
SM 5310 B-2011	Organic Carbon	93.6	93.8	96.2			1.72

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2430510
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2430510
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2430510
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2430510
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2430511

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2430511
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2430511
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2430511
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2430530
EPA 8270E	PCBs in water matrices by GC/MS/MS	2430530
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2430530
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2430531, 2430532
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2430510
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2430510
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2430510
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2430510
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2430511

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	08/11/2023			08/11/2023 14:27	Chandler E Cox	2430510
EPA 180.1 Rev. 2.0	08/11/2023			08/11/2023 13:26	Khloe J Berg	2430510
EPA 300.0 Rev. 2.1	08/11/2023			08/19/2023 12:28	James L Waggeberby	2430510
	08/11/2023			08/23/2023 13:12	James L Waggeberby	2430510
EPA 350.1 Rev. 2.0	08/11/2023			08/21/2023 14:00	Khloe J Berg	2430511
EPA 351.2 Rev. 2.0	08/11/2023	08/14/2023 13:41	Ping Hua	08/15/2023 17:08	Ping Hua	2430511
EPA 353.2 Rev. 2.0	08/11/2023			08/25/2023 14:24	Anna M. Plaviak	2430511
EPA 365.1 Rev. 2.0	08/11/2023	08/14/2023 15:42	Adam P Silver	08/15/2023 09:39	James L Waggeberby	2430511
EPA 8270E	08/11/2023	08/17/2023 08:30	Rasheda Ghaffari	08/21/2023 23:43	Julie Wi	2430530
	08/11/2023	08/28/2023 08:30	Rasheda Ghaffari	09/06/2023 00:34	Vandana T. Nagar	2430530
	08/11/2023	09/12/2023 08:00	Fe-Val Siddell	09/13/2023 20:31	Vandana T. Nagar	2430530
EPA 8276	08/11/2023	08/17/2023 08:30	Rasheda Ghaffari	08/25/2023 09:21	Arthur Maknenko	2430530
EPA 8321B	08/11/2023	08/11/2023 10:30	Hana Lee	08/12/2023 05:28	Tae K Lee	2430531
	08/11/2023	08/11/2023 10:30	Hana Lee	08/12/2023 05:42	Tae K Lee	2430532
	08/11/2023	08/11/2023 10:30	Hana Lee	08/12/2023 10:25	Tae K Lee	2430531
	08/11/2023	08/11/2023 10:30	Hana Lee	08/12/2023 10:38	Tae K Lee	2430532
	08/11/2023	08/16/2023 13:00	Hoor Shaik	08/18/2023 19:17	Juyoung Kim	2430532
	08/11/2023	08/16/2023 13:00	Hoor Shaik	08/18/2023 19:35	Juyoung Kim	2430531
	08/11/2023	08/16/2023 13:00	Hoor Shaik	08/21/2023 12:57	Juyoung Kim	2430532
SM 2320 B-2011	08/11/2023			08/17/2023 04:16	Dale L. Simmons	2430510
SM 2540 C-2015	08/11/2023			08/15/2023 14:46	Yijie Li	2430510
SM 2540 D-2015	08/11/2023			08/15/2023 14:46	Yijie Li	2430510
SM 4500-F- C-2011	08/11/2023			08/17/2023 04:16	Dale L. Simmons	2430510
SM 5310 B-2011	08/11/2023			08/15/2023 03:24	Elise M. Gillis	2430511