

Chemical Analysis Report

SO-DIST-2023-10-17-02

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

Event Description: **2022 SMP : Myakka**
Request ID: **RQ-2023-10-16-38**
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
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Certified by: Colin Wright, Program Administrator

Date Certified: 02-NOV-2023 09:36

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

Case Narrative

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

Results for the following analytical groups are included in this report: 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: BRANDYBRANCHATNWLILYCORD

Collection Date/Time: 10/16/2023 09:10

Field ID: G3SD0201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445199	EPA 8270E	Aldrin	0.67	U	ng/L	P436590	
		Alpha-BHC	0.10	U	ng/L	P436590	
		Alpha-Chlordane	0.21	U	ng/L	P436590	
		PCB-1016	2.1	U	ng/L	P436590	
		Beta-BHC	0.10	U	ng/L	P436590	
		PCB-1221	2.1	U	ng/L	P436590	
		Beta-Cyfluthrin	1.3	U	ng/L	P436590	
		PCB-1232	2.1	U	ng/L	P436590	
		Bifenthrin	0.52	U	ng/L	P436590	
		PCB-1242	2.1	U	ng/L	P436590	
		Carbophenothion	0.93	U	ng/L	P436590	
		PCB-1248	2.1	U	ng/L	P436590	
		Chlorothalonil	3.7	U	ng/L	P436590	
		PCB-1254	2.1	U	ng/L	P436590	
		Cis-Nonachlor	0.21	U	ng/L	P436590	
		PCB-1260	2.1	U	ng/L	P436590	
		Cypermethrin	1.5	U	ng/L	P436590	
		Dacthal	0.15	U	ng/L	P436590	
		DDD-p,p'	0.26	U	ng/L	P436590	
		DDE-p,p'	0.21	U	ng/L	P436590	
		DDT-p,p'	0.82	U	ng/L	P436590	
		Delta-BHC	0.41	U	ng/L	P436590	
		Deltamethrin	1.3	U	ng/L	P436590	
		Dichlobenil	0.26	U	ng/L	P436590	
		Dicofol	1.3	U	ng/L	P436590	
		Dieldrin	0.41	U	ng/L	P436590	
		Endosulfan I	0.41	U	ng/L	P436590	MS
		Endosulfan II	0.93	U	ng/L	P436590	
		Endosulfan Sulfate	0.31	U	ng/L	P436590	
		Endrin	0.93	U	ng/L	P436590	
		Endrin Aldehyde	0.77	U	ng/L	P436590	
		Endrin Ketone	0.41	U	ng/L	P436590	
		Esfenvalerate	0.77	U	ng/L	P436590	
		Ethalfuralin	0.15	U	ng/L	P436590	
		Fenpropathrin	0.26	U	ng/L	P436590	
		Gamma-BHC	0.13	U	ng/L	P436590	
		Gamma-Chlordane	0.23	I	ng/L	P436590	
		Heptachlor	0.21	U	ng/L	P436590	
		Heptachlor Epoxide	0.26	U	ng/L	P436590	MS
		Hexachlorobenzene**	1.0	U	ng/L	P436590	
		Kepone	14	U	ng/L	P436590	
		Lambda-Cyhalothrin	0.77	U	ng/L	P436590	
		Methoprene	0.77	U	ng/L	P436590	
		Methoxychlor	0.31	U	ng/L	P436590	

Field ID: G3SD0201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445199	EPA 8270E	MGK-264	0.21	U	ng/L	P436590	
		Mirex	0.36	U	ng/L	P436590	
		Oxychlordane	0.31	U	ng/L	P436590	
		Permethrin	1.6	U	ng/L	P436590	
		Phenothrin	0.93	U	ng/L	P436590	
		Piperonyl Butoxide	0.15	U	ng/L	P436590	
		Prallethrin	2.1	U	ng/L	P436590	
		Tau-Fluvalinate	0.26	U	ng/L	P436590	
		Tetramethrin	0.77	U	ng/L	P436590	
		Trans-Nonachlor	0.21	U	ng/L	P436590	
		Triclosan Methyl	0.15	U	ng/L	P436590	
		Trifluralin	0.21	U	ng/L	P436590	
		Chlordane	2.1	U	ng/L	P436590	
		Toxaphene	15	U	ng/L	P436590	
2445201	EPA 8321B	2,4-D	0.0020	U	ug/L	P436596	
		Acesulfame K	0.10	U	ug/L	P436574	
		2,4,5-T	0.0040	U	ug/L	P436596	
		AMPA	0.10	U	ug/L	P436574	MS
		Acetaminophen	0.0080	U	ug/L	P436596	
		Acetamiprid	0.0020	U	ug/L	P436596	
		Endothall	0.25	U	ug/L	P436574	
		Glufosinate	0.10	U	ug/L	P436574	
		Glyphosate	0.10	U	ug/L	P436574	
		Afidopyropen	0.0020	U	ug/L	P436596	
		Bentazon	8.0E-04	U	ug/L	P436596	
		Sucralose	0.010	U	ug/L	P436574	
		Benzovindiflupyr	0.0020	U	ug/L	P436596	
		Carbamazepine	8.0E-04	U	ug/L	P436596	
		Clothianidin	0.0020	U	ug/L	P436596	
		Dinotefuran	0.0059	I	ug/L	P436596	
		Diuron	0.0020	U	ug/L	P436596	
		Fenuron	0.032	U	ug/L	P436596	
		Fluridone	8.0E-04	U	ug/L	P436596	
		Imazapyr	0.011	I	ug/L	P436596	
		Hydrocodone	0.0020	U	ug/L	P436596	
		Ibuprofen	0.080	U	ug/L	P436596	
		Imidacloprid	0.0020	U	ug/L	P436596	
		Linuron	0.0040	U	ug/L	P436596	
		Mandestrobin	0.0020	U	ug/L	P436596	
		MCP	0.0020	U	ug/L	P436596	
		Naproxen	0.0080	U	ug/L	P436596	
		Primidone	0.0040	U	ug/L	P436596	
		Pyraclostrobin	0.0020	U	ug/L	P436596	
		Silvex	0.0040	U	ug/L	P436596	
		Thiamethoxam	0.0020	U	ug/L	P436596	

Field ID: G3SD0201

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445201	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P436596	
		Triclopyr	0.0040	U	ug/L	P436596	

Sample Location: LAKE MYAKKA (UPPER) AT MIDDLE

Collection Date/Time: 10/16/2023 10:40

Field ID: G3SD0133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445189	DEP SOP: NU-094-1	Color (true)	240		PCU	P436619	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P436620	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P436821	
		Sulfate	75		mg SO4/L	P436824	
	SM 2320 B-2011	Total Alkalinity	34		mg CaCO3/L	P436799	
	SM 2540 C-2015	TDS	234		mg/L	P437082	
	SM 2540 D-2015	TSS	2	U	mg/L	P437021	
2445190	SM 4500-F- C-2011	Fluoride	0.23		mg F/L	P436803	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.095		mg N/L	P436811	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P436637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P437090	
	EPA 365.1 Rev. 2.0	Total-P	0.49		mg P/L	P436652	
2445200	SM 5310 B-2011	Organic Carbon	26		mg C/L	P436850	
	EPA 8270E	Aldrin	0.67	U	ng/L	P436590	
		Alpha-BHC	0.10	U	ng/L	P436590	
		Alpha-Chlordane	0.21	U	ng/L	P436590	
		PCB-1016	2.1	U	ng/L	P436590	
		Beta-BHC	0.10	U	ng/L	P436590	
		PCB-1221	2.1	U	ng/L	P436590	
		Beta-Cyfluthrin	1.3	U	ng/L	P436590	
		PCB-1232	2.1	U	ng/L	P436590	
		Bifenthrin	0.52	U	ng/L	P436590	
		PCB-1242	2.1	U	ng/L	P436590	
		Carbophenothion	0.93	U	ng/L	P436590	
		PCB-1248	2.1	U	ng/L	P436590	
		Chlorothalonil	3.7	U	ng/L	P436590	
		PCB-1254	2.1	U	ng/L	P436590	
		Cis-Nonachlor	0.21	U	ng/L	P436590	
		PCB-1260	2.1	U	ng/L	P436590	
		Cypermethrin	1.5	U	ng/L	P436590	
		Dacthal	0.15	U	ng/L	P436590	
		DDD-p,p'	0.26	U	ng/L	P436590	
		DDE-p,p'	0.21	U	ng/L	P436590	
		DDT-p,p'	0.83	U	ng/L	P436590	
		Delta-BHC	0.41	U	ng/L	P436590	
		Deltamethrin	1.3	U	ng/L	P436590	
		Dichlobenil	0.26	U	ng/L	P436590	
		Dicofol	1.3	U	ng/L	P436590	
		Dieldrin	0.41	U	ng/L	P436590	
		Endosulfan I	0.41	U	ng/L	P436590	MS
		Endosulfan II	0.93	U	ng/L	P436590	
		Endosulfan Sulfate	0.31	U	ng/L	P436590	
		Endrin	0.93	U	ng/L	P436590	
		Endrin Aldehyde	0.77	U	ng/L	P436590	

Field ID: G3SD0133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445200	EPA 8270E	Endrin Ketone	0.41	U	ng/L	P436590	
		Esfenvalerate	0.77	U	ng/L	P436590	
		Ethalfuralin	0.15	U	ng/L	P436590	
		Fenpropathrin	0.26	U	ng/L	P436590	
		Gamma-BHC	0.13	U	ng/L	P436590	
		Gamma-Chlordane	0.24	I	ng/L	P436590	
		Heptachlor	0.21	U	ng/L	P436590	
		Heptachlor Epoxide	0.26	U	ng/L	P436590	MS
		Hexachlorobenzene**	1.0	U	ng/L	P436590	
		Kepone	14	U	ng/L	P436590	
		Lambda-Cyhalothrin	0.77	U	ng/L	P436590	
		Methoprene	0.77	U	ng/L	P436590	
		Methoxychlor	0.31	U	ng/L	P436590	
		MGK-264	0.21	U	ng/L	P436590	
		Mirex	0.36	U	ng/L	P436590	
		Oxychlordane	0.31	U	ng/L	P436590	
		Permethrin	1.7	U	ng/L	P436590	
		Phenothrin	0.93	U	ng/L	P436590	
		Piperonyl Butoxide	0.51	I	ng/L	P436590	
		Prallethrin	2.1	U	ng/L	P436590	
		Tau-Fluvalinate	0.26	U	ng/L	P436590	
		Tetramethrin	0.77	U	ng/L	P436590	
		Trans-Nonachlor	0.21	U	ng/L	P436590	
		Triclosan Methyl	0.15	U	ng/L	P436590	
		Trifluralin	0.21	U	ng/L	P436590	
	EPA 8276	Chlordane	2.1	UJ	ng/L	P436590	SUR
		Toxaphene	15	UJ	ng/L	P436590	SUR

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 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: LAKE MYAKKA (LOWER) AT MIDDLE

Collection Date/Time: 10/16/2023 11:40

Field ID: G3SD0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445187	DEP SOP: NU-094-1	Color (true)	230		PCU	P436619	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P436620	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P436821	
		Sulfate	71		mg SO4/L	P436824	
	SM 2320 B-2011	Total Alkalinity	32		mg CaCO3/L	P436799	
	SM 2540 C-2015	TDS	230	A	mg/L	P437082	
	SM 2540 D-2015	TSS	3	IA	mg/L	P437021	
	SM 4500-F- C-2011	Fluoride	0.21		mg F/L	P436803	
2445188	EPA 350.1 Rev. 2.0	Ammonia-N	0.058		mg N/L	P436810	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P436637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P437090	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P436652	
	SM 5310 B-2011	Organic Carbon	25		mg C/L	P436850	

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.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P436619

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436620

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436821

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436824

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436810

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436637

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437090

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436652

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P436590

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P436590

Component	Result	Code	Units
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276
Batch ID: P436590

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

Reference Method: EPA 8321B
Batch ID: P436574

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: P436596

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P436596

Component	Result	Code	Units
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P436799

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

Reference Method: SM 2540 C-2015
Batch ID: P437082

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437021

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P436803

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P436850

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: P436619

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: P436620

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436821

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436824

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436637

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: P437090

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436652

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.6		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P436590

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	68.2		P	30 - 96.0
Alpha-BHC	91.2		P	70 - 109
Alpha-Chlordane	92.2		P	45 - 107
Beta-BHC	91.9		P	64 - 138
Beta-Cyfluthrin	86.4		P	17 - 141
Bifenthrin	62.9		P	10 - 113
Carbophenothion	58.1		P	24 - 91.0
Chlorothalonil	64.8		P	26 - 180
Cis-Nonachlor	69.4		P	37 - 102
Cypermethrin	59.3		P	20 - 133
Dacthal	101		P	69 - 114
DDD-p,p'	69.2		P	42 - 105
DDE-p,p'	68.9		P	42 - 106
DDT-p,p'	68.6		P	42 - 107
Delta-BHC	104		P	67 - 144
Deltamethrin	104		P	15 - 149
Dichlobenil	70.5		P	46 - 117
Dicofol	74.8		P	34 - 114
Dieldrin	74.9		P	50 - 108
Endosulfan I	99.1		P	55 - 104
Endosulfan II	99.0		P	51 - 111
Endosulfan Sulfate	79.7		P	56 - 121
Endrin	71.4		P	10 - 106
Endrin Aldehyde	60.9		P	34 - 114
Endrin Ketone	83.7		P	63 - 177
Esfenvalerate	102		P	29 - 143
Ethalfuralin	73.7		P	46 - 96.0
Fenpropathrin	69.0		P	28 - 115
Gamma-BHC	92.5		P	65 - 121
Gamma-Chlordane	86.6		P	39 - 103
Heptachlor	55.7		P	39 - 94.0
Heptachlor Epoxide	95.7		P	54 - 104
Hexachlorobenzene	77.5		P	36 - 100
Kepone	81.1		P	10 - 225
Lambda-Cyhalothrin	90.4		P	10 - 135
Methoprene	60.3		P	10 - 109
Methoxychlor	80.7		P	52 - 112
MGK-264	94.3		P	44 - 117
Mirex	71.8		P	20 - 90.0
Oxychlordane	66.4		P	44 - 102
PCB-1016	85.2		P	45 - 107
PCB-1260	77.8		P	40 - 118
Permethrin	87.0		P	18 - 135
Phenothrin	69.5		P	10 - 102
Piperonyl Butoxide	95.1		P	28 - 156
Prallethrin	85.6		P	28 - 113
Tau-Fluvalinate	99.0		P	10 - 123
Tetramethrin	86.5		P	18 - 158
Trans-Nonachlor	84.5		P	39 - 104
Triclosan Methyl	69.9		P	54 - 108
Trifluralin	68.5		P	46 - 97.0

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P436590

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	89.1		P	52 - 117
Toxaphene	91.3		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P436574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	107		P	40 - 150
AMPA	123		P	40 - 150
Endothall	87.3		P	40 - 150
Glufosinate	95.4		P	40 - 150
Glyphosate	88.2		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P436596

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	65.2		P	40 - 150
2,4,5-T	80.5		P	40 - 150
Acetaminophen	88.6		P	30 - 150
Acetamiprid	73.6		P	40 - 150
Afidopyropen	73.8		P	30 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	73.8		P	40 - 150
Carbamazepine	75.9		P	40 - 150
Clothianidin	83.4		P	40 - 150
Dinotefuran	93.6		P	40 - 150
Diuron	68.1		P	40 - 150
Fenuron	88.5		P	40 - 150
Fluridone	74.0		P	40 - 150
Hydrocodone	90.2		P	40 - 150
Ibuprofen	74.8		P	40 - 150
Imazapyr	72.6		P	40 - 150
Imidacloprid	78.4		P	40 - 150
Linuron	61.4		P	40 - 150
Mandestrobin	79.1		P	40 - 150
MCPP	77.8		P	40 - 150
Naproxen	44.8		P	40 - 150
Primidone	78.2		P	40 - 150
Pyraclostrobin	69.6		P	40 - 150
Silvex	59.8		P	40 - 150
Thiamethoxam	84.0		P	40 - 150
Tolfenpyrad	49.3		P	30 - 150
Triclopyr	64.8		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P436799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.1		P	92 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P437082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.2		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437021

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

Reference Method: SM 4500-F- C-2011
Batch ID: P436803

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

Reference Method: SM 5310 B-2011
Batch ID: P436850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436821

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445094	Chloride	104		P	90 - 110
2445372	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445094	Sulfate	103		P	90 - 110
2445372	Sulfate	106		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436810

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445180	Ammonia-N	106	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445409	Ammonia-N	98.6	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445126	Kjeldahl Nitrogen	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445190	NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P436652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445180	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P436590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445022	Aldrin	53.2	64.4	P/P	24 - 81.0
2445022	Alpha-BHC	89.8	100	P/P	65 - 110
2445022	Alpha-Chlordane	107	104	P/P	43 - 119
2445022	Beta-BHC	107	90.1	P/P	54 - 165
2445022	Beta-Cyfluthrin	65.5	86.6	P/P	27 - 165
2445022	Bifenthrin	58.1	74.2	P/P	17 - 117
2445022	Carbophenothion	63.8	65.1	P/P	21 - 108
2445022	Chlorothalonil	171	94.6	P/P	10 - 255

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P436590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445022	Cis-Nonachlor	65.7	80.2	P/P	34 - 98.0
2445022	Cypermethrin	54.3	60.9	P/P	25 - 143
2445022	Dacthal	93.7	96.5	P/P	55 - 139
2445022	DDD-p,p'	73.1	80.7	P/P	30 - 109
2445022	DDE-p,p'	68.0	77.9	P/P	35 - 106
2445022	DDT-p,p'	64.7	67.4	P/P	41 - 101
2445022	Delta-BHC	138	118	P/P	58 - 165
2445022	Deltamethrin	97.4	107	P/P	10 - 194
2445022	Dichlobenil	77.4	72.0	P/P	22 - 114
2445022	Dicofol	80.8	74.8	P/P	17 - 133
2445022	Dieldrin	75.4	77.4	P/P	45 - 129
2445022	Endosulfan I	110	101	F/P	49 - 104
2445022	Endosulfan II	95.7	99.7	P/P	37 - 117
2445022	Endosulfan Sulfate	81.4	77.1	P/P	38 - 128
2445022	Endrin	72.2	81.7	P/P	35 - 116
2445022	Endrin Aldehyde	72.8	67.3	P/P	19 - 108
2445022	Endrin Ketone	91.5	92.4	P/P	44 - 134
2445022	Esfenvalerate	78.6	100	P/P	27 - 176
2445022	Ethalfuralin	79.1	79.3	P/P	49 - 100
2445022	Fenpropathrin	69.2	78.4	P/P	34 - 117
2445022	Gamma-BHC	106	94.0	P/P	59 - 129
2445022	Gamma-Chlordane	105	106	P/P	33 - 107
2445022	Heptachlor	50.0	64.3	P/P	37 - 94.0
2445022	Heptachlor Epoxide	121	95.1	F/P	38 - 118
2445022	Hexachlorobenzene	73.2	75.4	P/P	35 - 97.0
2445022	Kepone	81.9	70.8	P/P	10 - 221
2445022	Lambda-Cyhalothrin	69.1	81.0	P/P	23 - 190
2445022	Methoprene	50.1	63.8	P/P	21 - 109
2445022	Methoxychlor	85.2	89.2	P/P	46 - 118
2445022	MGK-264	114	115	P/P	39 - 122
2445022	Mirex	67.9	76.9	P/P	25 - 90.0
2445022	Oxychlordane	65.7	70.1	P/P	42 - 100
2445022	Permethrin	72.0	86.9	P/P	33 - 181
2445022	Phenothrin	55.5	71.6	P/P	12 - 125
2445022	Piperonyl Butoxide	115	116	P/P	10 - 178
2445022	Prallethrin	80.4	85.8	P/P	24 - 122
2445022	Tau-Fluvalinate	70.9	93.8	P/P	13 - 151
2445022	Tetramethrin	77.5	78.2	P/P	16 - 172
2445022	Trans-Nonachlor	98.9	92.0	P/P	39 - 100
2445022	Triclosan Methyl	66.4	78.1	P/P	43 - 110
2445022	Trifluralin	67.1	68.6	P/P	45 - 94.0
2445046	PCB-1016	92.9	93.3	P/P	45 - 107
2445046	PCB-1260	84.1	88.0	P/P	40 - 112

Reference Method: EPA 8276
Batch ID: P436590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445046	Chlordane	92.5	82.8	P/P	43 - 123
2445046	Toxaphene	93.6	86.9	P/P	27 - 156

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P436574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445134	Acesulfame K	112	111	P/P	40 - 150
2445134	AMPA	186	190	F/F	40 - 150
2445134	Endothall	83.0	78.3	P/P	40 - 150
2445134	Glufosinate	89.4	84.6	P/P	40 - 150
2445134	Glyphosate	75.9	74.8	P/P	40 - 150
2445134	Sucralose	105	98.2	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P436596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445134	2,4-D	77.7	74.4	P/P	40 - 150
2445134	2,4,5-T	86.1	90.4	P/P	40 - 150
2445134	Acetaminophen	94.8	94.4	P/P	30 - 150
2445134	Acetamiprid	55.9	56.6	P/P	40 - 150
2445134	Afidopyropen	64.5	66.7	P/P	30 - 150
2445134	Bentazon	135	133	P/P	30 - 150
2445134	Benzovindiflupyr	62.1	66.4	P/P	40 - 150
2445134	Carbamazepine	60.2	62.5	P/P	40 - 150
2445134	Clothianidin	79.6	81.7	P/P	40 - 150
2445134	Dinotefuran	78.3	80.2	P/P	40 - 150
2445134	Diuron	48.2	49.5	P/P	40 - 150
2445134	Fenuron	51.4	53.3	P/P	40 - 150
2445134	Fluridone	59.0	59.4	P/P	40 - 150
2445134	Hydrocodone	68.0	69.8	P/P	40 - 150
2445134	Ibuprofen	77.3	66.6	P/P	40 - 150
2445134	Imazapyr	88.4	88.1	P/P	40 - 150
2445134	Imidacloprid	97.3	103	P/P	40 - 150
2445134	Linuron	51.7	57.2	P/P	40 - 150
2445134	Mandestrobin	75.7	73.1	P/P	40 - 150
2445134	MCPP	91.2	88.5	P/P	40 - 150
2445134	Naproxen	45.4	50.8	P/P	40 - 150
2445134	Primidone	70.4	75.9	P/P	40 - 150
2445134	Pyraclostrobin	69.7	71.9	P/P	40 - 150
2445134	Silvex	75.7	74.6	P/P	40 - 150
2445134	Thiamethoxam	84.6	88.7	P/P	40 - 150
2445134	Tolfenpyrad	58.1	58.8	P/P	30 - 150
2445134	Triclopyr	72.0	78.7	P/P	40 - 150

Reference Method: SM 5310 B-2011

Batch ID: P436850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445180	Organic Carbon	96.0	96.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P436619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445220	Color (true)	0.307	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P436620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445093	Turbidity	3.24	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445094	Chloride	1.97	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445094	Sulfate	1.20	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445180	Ammonia-N	2.89	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445409	Ammonia-N	0.717	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445126	Kjeldahl Nitrogen	0.0202	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445190	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P436652

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445180	Total-P	0.0406	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P436590

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445022	Aldrin	19.1	Spike	P	0 - 41
2445022	Alpha-BHC	10.9	Spike	P	0 - 25
2445022	Alpha-Chlordane	3.18	Spike	P	0 - 32
2445022	Beta-BHC	17.3	Spike	P	0 - 33
2445022	Beta-Cyfluthrin	27.7	Spike	P	0 - 43
2445022	Bifenthrin	24.3	Spike	P	0 - 52
2445022	Carbophenothion	2.08	Spike	P	0 - 30
2445022	Chlorothalonil	57.6	Spike	P	0 - 82
2445022	Cis-Nonachlor	19.9	Spike	P	0 - 33
2445022	Cypermethrin	11.5	Spike	P	0 - 51
2445022	Dacthal	2.91	Spike	P	0 - 27
2445022	DDD-p,p'	9.88	Spike	P	0 - 39
2445022	DDE-p,p'	13.7	Spike	P	0 - 31
2445022	DDT-p,p'	4.10	Spike	P	0 - 29
2445022	Delta-BHC	16.0	Spike	P	0 - 35
2445022	Deltamethrin	9.63	Spike	P	0 - 100
2445022	Dichlobenil	7.32	Spike	P	0 - 40
2445022	Dicofol	7.77	Spike	P	0 - 37
2445022	Dieldrin	2.59	Spike	P	0 - 27
2445022	Endosulfan I	7.91	Spike	P	0 - 23
2445022	Endosulfan II	4.07	Spike	P	0 - 34
2445022	Endosulfan Sulfate	5.43	Spike	P	0 - 36
2445022	Endrin	12.3	Spike	P	0 - 45
2445022	Endrin Aldehyde	7.96	Spike	P	0 - 76
2445022	Endrin Ketone	0.939	Spike	P	0 - 43
2445022	Esfenvalerate	24.3	Spike	P	0 - 51
2445022	Ethalfuralin	0.237	Spike	P	0 - 22
2445022	Fenpropathrin	12.5	Spike	P	0 - 49
2445022	Gamma-BHC	11.8	Spike	P	0 - 28
2445022	Gamma-Chlordane	1.11	Spike	P	0 - 40
2445022	Heptachlor	25.0	Spike	P	0 - 29
2445022	Heptachlor Epoxide	23.6	Spike	P	0 - 33
2445022	Hexachlorobenzene	2.94	Spike	P	0 - 36
2445022	Kepone	3.69	Spike	P	0 - 85
2445022	Lambda-Cyhalothrin	15.8	Spike	P	0 - 55
2445022	Methoprene	24.0	Spike	P	0 - 53
2445022	Methoxychlor	4.57	Spike	P	0 - 50
2445022	MGK-264	0.369	Spike	P	0 - 43
2445022	Mirex	12.4	Spike	P	0 - 40
2445022	Oxychlordane	6.54	Spike	P	0 - 31
2445022	Permethrin	18.8	Spike	P	0 - 50
2445022	Phenothrin	25.3	Spike	P	0 - 58
2445022	Piperonyl Butoxide	0.715	Spike	P	0 - 100
2445022	Prallethrin	6.51	Spike	P	0 - 39

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P436590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445022	Tau-Fluvalinate	27.8	Spike	P	0 - 54
2445022	Tetramethrin	0.895	Spike	P	0 - 51
2445022	Trans-Nonachlor	7.18	Spike	P	0 - 39
2445022	Triclosan Methyl	16.2	Spike	P	0 - 31
2445022	Trifluralin	2.16	Spike	P	0 - 22
2445046	PCB-1016	0.354	Spike	P	0 - 25
2445046	PCB-1260	4.50	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P436590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445046	Chlordane	11.1	Spike	P	0 - 28
2445046	Toxaphene	7.49	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P436574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445134	Acesulfame K	0.251	Spike	P	0 - 30
2445134	AMPA	2.06	Spike	P	0 - 30
2445134	Endothall	5.81	Spike	P	0 - 30
2445134	Glufosinate	5.53	Spike	P	0 - 30
2445134	Glyphosate	1.42	Spike	P	0 - 30
2445134	Sucralose	6.30	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P436596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445134	2,4-D	4.27	Spike	P	0 - 30
2445134	2,4,5-T	4.88	Spike	P	0 - 30
2445134	Acetaminophen	0.454	Spike	P	0 - 30
2445134	Acetamiprid	1.14	Spike	P	0 - 30
2445134	Afidopyropen	3.33	Spike	P	0 - 30
2445134	Bentazon	1.55	Spike	P	0 - 30
2445134	Benzovindiflupyr	6.76	Spike	P	0 - 30
2445134	Carbamazepine	3.63	Spike	P	0 - 30
2445134	Clothianidin	2.70	Spike	P	0 - 30
2445134	Dinotefuran	2.33	Spike	P	0 - 30
2445134	Diuron	2.55	Spike	P	0 - 30
2445134	Fenuron	3.67	Spike	P	0 - 30
2445134	Fluridone	0.534	Spike	P	0 - 30
2445134	Hydrocodone	2.68	Spike	P	0 - 30
2445134	Ibuprofen	14.9	Spike	P	0 - 30
2445134	Imazapyr	0.247	Spike	P	0 - 30
2445134	Imidacloprid	5.72	Spike	P	0 - 30
2445134	Linuron	10.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P436596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445134	Mandestrobin	3.44	Spike	P	0 - 30
2445134	MCP	3.00	Spike	P	0 - 30
2445134	Naproxen	11.3	Spike	P	0 - 30
2445134	Primidone	7.55	Spike	P	0 - 30
2445134	Pyraclostrobin	3.01	Spike	P	0 - 30
2445134	Silvex	1.52	Spike	P	0 - 30
2445134	Thiamethoxam	4.80	Spike	P	0 - 30
2445134	Tolfenpyrad	1.21	Spike	P	0 - 30
2445134	Triclopyr	8.92	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P436799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445672	Total Alkalinity	1.03	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P437082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445187	TDS	5.22	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P436803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445672	Fluoride	0.947	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P436850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445180	Organic Carbon	0.212	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2445199

Field Sample ID: G3SD0201

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	70.0	P	37 - 129
EPA 8270E	Decachlorobiphenyl	72.8	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	66.2	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	58.5	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	63.4	P	28 - 102
EPA 8276	PCNB	98.8	P	49 - 115

Lab Sample ID: 2445200

Field Sample ID: G3SD0133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	71.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	81.1	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	60.1	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	63.8	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	73.2	P	28 - 102
EPA 8276	PCNB	134	F	49 - 115

Lab Sample ID: 2445201

Field Sample ID: G3SD0201

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	81.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	42.8	P	30 - 160
EPA 8321B	Diuron-d6	41.8	P	30 - 160
EPA 8321B	Endothall-d6	153	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.3	P	30 - 160
EPA 8321B	Primidone-d5	37.0	P	30 - 160
EPA 8321B	Sucralose-d6	98.9	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122179
Included Lab Sample IDs: 2445201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	107	117	P/P	60 - 160
Sucralose	103	96.2	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A122198
Included Lab Sample IDs: 2445187, 2445189

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A122199
Included Lab Sample IDs: 2445187, 2445189

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A122209
Included Lab Sample IDs: 2445187, 2445189

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122239
Included Lab Sample IDs: 2445188, 2445190

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A122258
Included Lab Sample IDs: 2445188, 2445190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.6	98.9	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A122259
Included Lab Sample IDs: 2445187, 2445189

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.8	95.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A122259
Included Lab Sample IDs: 2445187, 2445189

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A122259

Included Lab Sample IDs: 2445187, 2445189

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122263

Included Lab Sample IDs: 2445188, 2445190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	98.1	P/P	90 - 110
Ammonia-N	99.0	98.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A122276

Included Lab Sample IDs: 2445188, 2445190

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	98.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122281

Included Lab Sample IDs: 2445201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	126	134	P/P	60 - 160
Endothall	82.8	81.7	P/P	60 - 160
Glufosinate	104	117	P/P	60 - 160
Glyphosate	101	98.9	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A122342

Included Lab Sample IDs: 2445201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	78.7	75.4	P/P	50 - 150
2,4,5-T	83.8	68.7	P/P	50 - 150
Acetaminophen	113	115	P/P	60 - 160
Acetamiprid	108	109	P/P	50 - 150
Afidopyropen	114	110	P/P	50 - 150
Bentazon	113	108	P/P	50 - 160
Benzovindiflupyr	103	101	P/P	50 - 150
Carbamazepine	104	108	P/P	60 - 150
Clothianidin	104	104	P/P	60 - 150
Dinotefuran	111	108	P/P	50 - 150
Diuron	119	112	P/P	60 - 160
Fenuron	111	112	P/P	60 - 150
Fluridone	108	111	P/P	60 - 160
Hydrocodone	114	113	P/P	60 - 150
Ibuprofen	99.2	104	P/P	50 - 160
Imazapyr	82.6	79.3	P/P	50 - 150
Imidacloprid	97.7	97.5	P/P	60 - 150
Linuron	97.1	93.7	P/P	60 - 150
Mandestrobin	111	108	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122342
Included Lab Sample IDs: 2445201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPD	90.3	79.3	P/P	50 - 150
Naproxen	108	61.5	P/P	50 - 160
Primidone	97.6	98.3	P/P	60 - 150
Pyraclostrobin	114	114	P/P	60 - 150
Silvex	85.9	76.8	P/P	50 - 150
Thiamethoxam	107	108	P/P	50 - 150
Tolfenpyrad	119	119	P/P	60 - 150
Triclopyr	77.5	64.4	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A122350
Included Lab Sample IDs: 2445199, 2445200

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.4		P	80 - 120
Toxaphene	96.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A122352
Included Lab Sample IDs: 2445199, 2445200

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	120		P	80 - 120
Alpha-Chlordane	109		P	80 - 120
Beta-BHC	85.8		P	80 - 120
Beta-Cyfluthrin	103		P	80 - 120
Bifenthrin	105		P	80 - 120
Carbophenothion	91.5		P	80 - 120
Chlorothalonil	98.7		P	80 - 120
Cis-Nonachlor	98.7		P	80 - 120
Cypermethrin	91.5		P	80 - 120
Dacthal	106		P	80 - 120
DDD-p,p'	108		P	80 - 120
DDE-p,p'	112		P	80 - 120
DDT-p,p'	104		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	107		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	108		P	80 - 120
Endosulfan I	111		P	80 - 120
Endosulfan II	113		P	80 - 120
Endosulfan Sulfate	86.2		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	90.4		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	106		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	94.8		P	80 - 120
Gamma-BHC	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A122352

Included Lab Sample IDs: 2445199, 2445200

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-Chlordane	109		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	111		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	87.2		P	80 - 120
Lambda-Cyhalothrin	114		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	103		P	80 - 120
MGK-264	111		P	80 - 120
Mirex	105		P	80 - 120
Oxychlordane	107		P	80 - 120
Permethrin	107		P	80 - 120
Phenothrin	107		P	80 - 120
Piperonyl Butoxide	98.4		P	80 - 120
Prallethrin	98.2		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	99.1		P	80 - 120
Trans-Nonachlor	108		P	80 - 120
Triclosan Methyl	97.0		P	80 - 120
Trifluralin	97.1		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122410

Included Lab Sample IDs: 2445188, 2445190

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

Reference Method: EPA 8270E

Run ID: A122431

Included Lab Sample IDs: 2445199, 2445200

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	108		P	80 - 120
PCB-1260	106		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		Precision	
					LCS	SMP
DEP SOP: NU-094-1	Color (true)	99.5				0.307
EPA 180.1 Rev. 2.0	Turbidity	104				3.24
EPA 300.0 Rev. 2.1	Chloride	102	104	106		1.97
	Sulfate	101	103	106		1.20
EPA 350.1 Rev. 2.0	Ammonia-N	99.6	106	102		
	Ammonia-N	99.2	98.6	97.8		2.89
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	100	100		0.0202
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	99.5	99.5		0.0
EPA 365.1 Rev. 2.0	Total-P	99.6	107	107		0.0406
EPA 8270E	Aldrin	68.2	53.2	64.4		19.1
	Alpha-BHC	91.2	89.8	100		10.9
	Alpha-Chlordane	92.2	107	104		3.18
	Beta-BHC	91.9	107	90.1		17.3
	Beta-Cyfluthrin	86.4	65.5	86.6		27.7
	Bifenthrin	62.9	58.1	74.2		24.3
	Carbophenothion	58.1	63.8	65.1		2.08
	Chlorothalonil	64.8	171	94.6		57.6
	Cis-Nonachlor	69.4	65.7	80.2		19.9
	Cypermethrin	59.3	54.3	60.9		11.5
	Dacthal	101	93.7	96.5		2.91
	DDD-p,p'	69.2	73.1	80.7		9.88
	DDE-p,p'	68.9	68.0	77.9		13.7
	DDT-p,p'	68.6	64.7	67.4		4.10
	Delta-BHC	104	138	118		16.0
	Deltamethrin	104	97.4	107		9.63
	Dichlobenil	70.5	77.4	72.0		7.32
	Dicofol	74.8	80.8	74.8		7.77
	Dieldrin	74.9	75.4	77.4		2.59
	Endosulfan I	99.1	110	101		7.91
	Endosulfan II	99.0	95.7	99.7		4.07
	Endosulfan Sulfate	79.7	81.4	77.1		5.43
	Endrin	71.4	72.2	81.7		12.3
	Endrin Aldehyde	60.9	72.8	67.3		7.96
	Endrin Ketone	83.7	91.5	92.4		0.939
	Esfenvalerate	102	78.6	100		24.3
	Ethalfuralin	73.7	79.1	79.3		0.237
	Fenpropathrin	69.0	69.2	78.4		12.5
	Gamma-BHC	92.5	106	94.0		11.8
	Gamma-Chlordane	86.6	105	106		1.11
	Heptachlor	55.7	50.0	64.3		25.0
	Heptachlor Epoxide	95.7	121	95.1		23.6
	Hexachlorobenzene	77.5	73.2	75.4		2.94
	Kepone	81.1	81.9	70.8		3.69
	Lambda-Cyhalothrin	90.4	69.1	81.0		15.8
	Methoprene	60.3	50.1	63.8		24.0
	Methoxychlor	80.7	85.2	89.2		4.57
	MGK-264	94.3	114	115		0.369
	Mirex	71.8	67.9	76.9		12.4
	Oxychlordane	66.4	65.7	70.1		6.54
	PCB-1016	85.2	92.9	93.3		0.354
	PCB-1260	77.8	84.1	88.0		4.50
	Permethrin	87.0	72.0	86.9		18.8
	Phenothrin	69.5	55.5	71.6		25.3
	Piperonyl Butoxide	95.1	115	116		0.715

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Prallethrin	85.6	80.4	85.8			6.51
	Tau-Fluvalinate	99.0	70.9	93.8			27.8
	Tetramethrin	86.5	77.5	78.2			0.895
	Trans-Nonachlor	84.5	98.9	92.0			7.18
	Triclosan Methyl	69.9	66.4	78.1			16.2
	Trifluralin	68.5	67.1	68.6			2.16
EPA 8276	Chlordane	89.1	92.5	82.8			11.1
	Toxaphene	91.3	93.6	86.9			7.49
EPA 8321B	2,4-D	65.2	74.4	77.7			4.27
	2,4,5-T	80.5	90.4	86.1			4.88
	Acesulfame K	107	112	111			0.251
	Acetaminophen	88.6	94.8	94.4			0.454
	Acetamiprid	73.6	55.9	56.6			1.14
	Afidopyropen	73.8	64.5	66.7			3.33
	AMPA	123	186	190			2.06
	Bentazon	105	133	135			1.55
	Benzovindiflupyr	73.8	62.1	66.4			6.76
	Carbamazepine	75.9	60.2	62.5			3.63
	Clothianidin	83.4	79.6	81.7			2.70
	Dinotefuran	93.6	78.3	80.2			2.33
	Diuron	68.1	48.2	49.5			2.55
	Endothall	87.3	83.0	78.3			5.81
	Fenuron	88.5	51.4	53.3			3.67
	Fluridone	74.0	59.0	59.4			0.534
	Glufosinate	95.4	89.4	84.6			5.53
	Glyphosate	88.2	75.9	74.8			1.42
	Hydrocodone	90.2	68.0	69.8			2.68
	Ibuprofen	74.8	66.6	77.3			14.9
	Imazapyr	72.6	88.1	88.4			0.247
	Imidacloprid	78.4	97.3	103			5.72
	Linuron	61.4	51.7	57.2			10.0
	Mandestrobin	79.1	75.7	73.1			3.44
	MCPP	77.8	88.5	91.2			3.00
	Naproxen	44.8	50.8	45.4			11.3
	Primidone	78.2	70.4	75.9			7.55
	Pyraclostrobin	69.6	69.7	71.9			3.01
	Silvex	59.8	74.6	75.7			1.52
	Sucralose	102	105	98.2			6.30
	Thiamethoxam	84.0	84.6	88.7			4.80
	Tolfenpyrad	49.3	58.1	58.8			1.21
	Triclopyr	64.8	78.7	72.0			8.92
SM 2320 B-2011	Total Alkalinity	97.1				1.03	
SM 2540 C-2015	TDS	93.2				5.22	
SM 2540 D-2015	TSS	95.2					
SM 4500-F- C-2011	Fluoride	99.7					0.947
SM 5310 B-2011	Organic Carbon	94.2	96.0	96.3			0.212

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2445187, 2445189
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2445187, 2445189
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2445187, 2445189

Reference Method Descriptions

Method	Description	Associated Samples
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2445187, 2445189
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2445188, 2445190
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2445188, 2445190
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2445188, 2445190
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2445188, 2445190
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2445199, 2445200
EPA 8270E	PCBs in water matrices by GC/MS/MS	2445199, 2445200
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2445199, 2445200
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2445201
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2445187, 2445189
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2445187, 2445189
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2445187, 2445189
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2445187, 2445189
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2445188, 2445190

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	10/17/2023			10/17/2023 16:12	Anna M. Plaviak	2445187
	10/17/2023			10/17/2023 16:13	Anna M. Plaviak	2445189
EPA 180.1 Rev. 2.0	10/17/2023			10/17/2023 14:51	Khloe J Berg	2445187
	10/17/2023			10/17/2023 14:52	Khloe J Berg	2445189
EPA 300.0 Rev. 2.1	10/17/2023			10/19/2023 07:38	James L Waggeberby	2445187
	10/17/2023			10/19/2023 07:54	James L Waggeberby	2445189
EPA 350.1 Rev. 2.0	10/17/2023			10/20/2023 11:40	Ping Hua	2445188
	10/17/2023			10/20/2023 11:56	Ping Hua	2445190
EPA 351.2 Rev. 2.0	10/17/2023	10/18/2023 11:29	Ping Hua	10/19/2023 12:36	Ping Hua	2445188
	10/17/2023	10/18/2023 11:29	Ping Hua	10/19/2023 12:37	Ping Hua	2445190
EPA 353.2 Rev. 2.0	10/17/2023			10/25/2023 16:26	Fadila Guebre	2445190
	10/17/2023			10/25/2023 16:38	Fadila Guebre	2445188
EPA 365.1 Rev. 2.0	10/17/2023	10/18/2023 13:42	Adam P Silver	10/20/2023 11:43	James L Waggeberby	2445188
	10/17/2023	10/18/2023 13:42	Adam P Silver	10/20/2023 11:44	James L Waggeberby	2445190
EPA 8270E	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/24/2023 02:28	Lipi Saha	2445199
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/24/2023 03:01	Lipi Saha	2445200
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 03:22	Julie Wi	2445199
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 03:54	Julie Wi	2445200
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 06:10	Arthur Maknenko	2445199
EPA 8276	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 07:07	Arthur Maknenko	2445200
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 07:07	Arthur Maknenko	2445200
EPA 8321B	10/17/2023	10/18/2023 09:00	Hoor Shaik	10/21/2023 00:02	Juyoung Kim	2445201
	10/17/2023	10/18/2023 14:00	Tae K Lee	10/19/2023 00:34	Hana Lee	2445201
	10/17/2023	10/18/2023 14:00	Tae K Lee	10/21/2023 13:46	Tae K Lee	2445201
SM 2320 B-2011	10/17/2023			10/20/2023 00:02	Dale L. Simmons	2445187
	10/17/2023			10/20/2023 00:15	Dale L. Simmons	2445189
SM 2540 C-2015	10/17/2023			10/20/2023 16:03	Yijie Li	2445187, 2445189
SM 2540 D-2015	10/17/2023			10/20/2023 16:03	Yijie Li	2445187, 2445189
SM 4500-F- C-2011	10/17/2023			10/20/2023 00:02	Dale L. Simmons	2445187
	10/17/2023			10/20/2023 00:15	Dale L. Simmons	2445189
SM 5310 B-2011	10/17/2023			10/20/2023 00:21	Elise M. Gillis	2445188
	10/17/2023			10/20/2023 00:35	Elise M. Gillis	2445190