

Chemical Analysis Report

TLH-ROC-2022-05-17-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Run 4**
Request ID: **RQ-2022-02-28-41**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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Certified by: Colin Wright, Program Administrator

Date Certified: 10-JUN-2022 09:51

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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: Middle of Cherry Lake

Collection Date/Time: 05/17/2022 10:15

Field ID: G1TLHR0048

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327496	DEP SOP: NU-094-1	Color (true)**	4.6	I	PCU	P414039	
	EPA 180.1 Rev. 2.0	Turbidity	0.80	I	NTU	P414036	
	EPA 300.0 Rev. 2.1	Chloride	7.2		mg Cl/L	P414290	
		Sulfate	1.6		mg SO4/L	P414294	
	SM 2320 B-2011	Total Alkalinity	9.3		mg CaCO3/L	P414260	
	SM 2540 C-2011	TDS	34		mg/L	P414463	
	SM 2540 D-2011	TSS	2	U	mg/L	P414245	
2327497	SM 4500-F- C-2011	Fluoride	0.049	I	mg F/L	P414266	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P414364	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P414281	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.035		mg N/L	P414277	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P414058	
2327500	SM 5310 B-2011	Organic Carbon	4.6		mg C/L	P414079	
	EPA 8270E	Aldrin	0.69	U	ng/L	P413841	
		Alpha-BHC	0.21	I	ng/L	P413841	
		Alpha-Chlordane	0.22	I	ng/L	P413841	
		Beta-BHC	0.24	I	ng/L	P413841	
		Beta-Cyfluthrin**	1.3	U	ng/L	P413841	MS
		Bifenthrin**	0.53	U	ng/L	P413841	
		Carbophenothion	0.95	U	ng/L	P413841	
		Chlorothalonil	1.3	U	ng/L	P413841	
		Cis-Nonachlor**	0.21	U	ng/L	P413841	
		Cypermethrin	1.6	U	ng/L	P413841	
		Dacthal**	0.22	I	ng/L	P413841	
		DDD-p,p'	0.26	U	ng/L	P413841	
		DDE-p,p'	0.43	I	ng/L	P413841	
		DDT-p,p'	0.26	U	ng/L	P413841	
		Delta-BHC	0.42	U	ng/L	P413841	
		Deltamethrin**	1.3	U	ng/L	P413841	
		Dichlobenil**	0.26	U	ng/L	P413841	
		Dicofol	1.3	U	ng/L	P413841	
		Dieldrin	0.42	U	ng/L	P413841	
		Endosulfan I	0.42	U	ng/L	P413841	
		Endosulfan II	0.45	I	ng/L	P413841	
		Endosulfan Sulfate	0.32	U	ng/L	P413841	
		Endrin	0.42	U	ng/L	P413841	
		Endrin Aldehyde	0.79	U	ng/L	P413841	
		Endrin Ketone	0.42	U	ng/L	P413841	
		Esfenvalerate**	0.79	U	ng/L	P413841	
		Ethalfuralin**	0.16	U	ng/L	P413841	
		Fenpropathrin**	0.26	U	ng/L	P413841	
		Gamma-BHC	0.13	U	ng/L	P413841	
		Gamma-Chlordane	0.34	I	ng/L	P413841	
		Heptachlor	0.21	U	ng/L	P413841	

Field ID: G1TLHR0048

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2327500	EPA 8270E	Heptachlor Epoxide	0.26	U	ng/L	P413841	
		Hexachlorobenzene**	1.1	U	ng/L	P413841	
		Kepone**	5.3	U	ng/L	P413841	
		Lambda-Cyhalothrin**	0.79	U	ng/L	P413841	
		Methoprene**	0.79	U	ng/L	P413841	
		Methoxychlor	0.32	U	ng/L	P413841	
		MGK-264**	0.21	U	ng/L	P413841	
		Mirex	0.74	U	ng/L	P413841	
		Oxychlordane**	0.32	U	ng/L	P413841	MS
		Permethrin	1.7	U	ng/L	P413841	
		Phenothrin**	0.95	U	ng/L	P413841	
		Piperonyl Butoxide**	0.16	U	ng/L	P413841	
		Prallethrin**	2.1	U	ng/L	P413841	
		Tau-Fluvalinate**	0.26	U	ng/L	P413841	
		Tetramethrin**	0.79	U	ng/L	P413841	
		Trans-Nonachlor**	0.25	I	ng/L	P413841	
		Triclosan Methyl**	0.16	U	ng/L	P413841	
		Trifluralin	0.21	U	ng/L	P413841	
	EPA 8276	Chlordane	2.6	U	ng/L	P413841	
		Toxaphene	16	U	ng/L	P413841	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P414039

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414036

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414294

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414364

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414277

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

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

Reference Method: EPA 8270E
Batch ID: P413841

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P413841

Component	Result	Code	Units
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	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
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P413841

Component	Result	Code	Units
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
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	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P413841

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P414260

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

Reference Method: SM 2540 C-2011
Batch ID: P414463

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P414245

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P414079

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: P414039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.5		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414036

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414294

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414364

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

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

Reference Method: EPA 8270E
Batch ID: P413841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.9		P	10 - 93.0
Alpha-BHC	102		P	75 - 106
Alpha-Chlordane	95.8		P	50 - 109
Beta-BHC	106		P	36 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P413841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	102		P	23 - 167
Bifenthrin	62.7		P	11 - 123
Carbophenothion	76.9		P	18 - 96.0
Chlorothalonil	166		P	27 - 190
Cis-Nonachlor	88.0		P	40 - 111
Cypermethrin	96.7		P	25 - 155
Dacthal	105		P	72 - 119
DDD-p,p'	104		P	47 - 108
DDE-p,p'	104		P	48 - 107
DDT-p,p'	98.4		P	49 - 111
Delta-BHC	103		P	54 - 138
Deltamethrin	111		P	22 - 189
Dichlobenil	93.2		P	32 - 113
Dicofol	93.7		P	50 - 108
Dieldrin	84.9		P	56 - 110
Endosulfan I	97.4		P	60 - 105
Endosulfan II	103		P	50 - 120
Endosulfan Sulfate	110		P	55 - 121
Endrin	101		P	31 - 119
Endrin Aldehyde	109		P	36 - 116
Endrin Ketone	100		P	69 - 177
Esfenvalerate	93.4		P	10 - 179
Ethalfuralin	92.0		P	49 - 99.0
Fenpropathrin	75.3		P	35 - 119
Gamma-BHC	96.1		P	69 - 120
Gamma-Chlordane	93.3		P	45 - 107
Heptachlor	87.5		P	41 - 100
Heptachlor Epoxide	102		P	58 - 106
Hexachlorobenzene	85.7		P	39 - 100
Kepone	163		P	10 - 191
Lambda-Cyhalothrin	78.6		P	21 - 206
Methoprene	76.9		P	10 - 129
Methoxychlor	74.2		P	61 - 111
MGK-264	80.2		P	20 - 123
Mirex	81.8		P	10 - 182
Oxychlordane	91.5		P	39 - 110
Permethrin	93.5		P	26 - 152
Phenothrin	62.1		P	10 - 109
Piperonyl Butoxide	103		P	19 - 147
Prallethrin	76.5		P	14 - 109
Tau-Fluvalinate	89.8		P	16 - 134
Tetramethrin	73.7		P	10 - 125
Trans-Nonachlor	106		P	45 - 107
Triclosan Methyl	103		P	60 - 110
Trifluralin	88.1		P	44 - 101

Reference Method: EPA 8276

Batch ID: P413841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	86.9		P	61 - 118
Toxaphene	83.0		P	51 - 122

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P414260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327580	Chloride	94.9		P	90 - 110
2327788	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327580	Sulfate	96.3		P	90 - 110
2327788	Sulfate	96.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327460	Ammonia-N	93.8	95.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327460	Kjeldahl Nitrogen	99.5	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327487	NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327392	Total-P	109	108	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P413841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327366	Aldrin	55.1	55.8	P/P	10 - 89.0
2327366	Alpha-BHC	105	101	P/P	71 - 105
2327366	Beta-BHC	123	112	P/P	57 - 152
2327366	Beta-Cyfluthrin	25.4	27.2	F/F	29 - 186
2327366	Bifenthrin	52.4	54.1	P/P	19 - 119
2327366	Carbophenothion	88.9	66.2	P/P	19 - 107
2327366	Chlorothalonil	225	196	P/P	10 - 245
2327366	Cis-Nonachlor	75.8	71.4	P/P	36 - 110
2327366	Cypermethrin	72.7	82.0	P/P	24 - 169
2327366	Dacthal	105	110	P/P	62 - 115
2327366	DDD-p,p'	93.6	93.5	P/P	36 - 109
2327366	DDE-p,p'	92.5	94.8	P/P	30 - 114
2327366	DDT-p,p'	79.2	79.2	P/P	42 - 108
2327366	Delta-BHC	126	113	P/P	60 - 164

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P413841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327366	Deltamethrin	84.5	93.1	P/P	10 - 210
2327366	Dichlobenil	93.1	85.0	P/P	23 - 108
2327366	Dicofol	75.1	88.5	P/P	44 - 109
2327366	Dieldrin	101	110	P/P	37 - 119
2327366	Endosulfan I	83.5	88.2	P/P	52 - 105
2327366	Endosulfan II	89.5	104	P/P	35 - 127
2327366	Endosulfan Sulfate	109	80.3	P/P	39 - 130
2327366	Endrin	87.3	88.8	P/P	30 - 116
2327366	Endrin Aldehyde	76.5	77.9	P/P	20 - 110
2327366	Endrin Ketone	95.2	88.7	P/P	48 - 134
2327366	Esfenvalerate	77.2	82.3	P/P	10 - 199
2327366	Ethalfuralin	92.6	87.4	P/P	48 - 95.0
2327366	Fenpropathrin	69.0	60.6	P/P	37 - 121
2327366	Gamma-BHC	112	95.9	P/P	61 - 126
2327366	Heptachlor	76.4	77.1	P/P	38 - 96.0
2327366	Hexachlorobenzene	80.2	78.7	P/P	39 - 93.0
2327366	Lambda-Cyhalothrin	67.1	67.9	P/P	10 - 204
2327366	Methoprene	68.2	71.1	P/P	17 - 108
2327366	Methoxychlor	69.6	75.8	P/P	56 - 115
2327366	MGK-264	90.9	94.5	P/P	35 - 120
2327366	Mirex	70.2	71.4	P/P	10 - 178
2327366	Oxychlordane	106	99.6	F/F	47 - 91.0
2327366	Permethrin	72.0	76.4	P/P	27 - 170
2327366	Phenothrin	62.1	67.6	P/P	10 - 133
2327366	Piperonyl Butoxide	92.5	90.2	P/P	23 - 150
2327366	Prallethrin	72.6	75.7	P/P	21 - 113
2327366	Tau-Fluvalinate	70.3	76.7	P/P	16 - 158
2327366	Tetramethrin	80.9	79.5	P/P	22 - 132
2327366	Trans-Nonachlor	92.6	101	P/P	43 - 102
2327366	Triclosan Methyl	108	107	P/P	49 - 109
2327366	Trifluralin	85.8	81.6	P/P	48 - 93.0

Reference Method: EPA 8276

Batch ID: P413841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327303	Chlordane	95.5	101	P/P	55 - 128
2327303	Toxaphene	107	107	P/P	57 - 211

Reference Method: SM 4500-F- C-2011

Batch ID: P414266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327557	Fluoride	97.0	97.6	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P414079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327376	Organic Carbon	94.9	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P414039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	Color (true)	0.994	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	Turbidity	0.257	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P414290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	Chloride	0.0403	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P414364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327460	Ammonia-N	1.08	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327460	Kjeldahl Nitrogen	1.67	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327487	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414058

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327392	Total-P	0.807	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P413841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327366	Aldrin	1.18	Spike	P	0 - 37
2327366	Alpha-BHC	3.88	Spike	P	0 - 16

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P413841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327366	Alpha-Chlordane	4.08	Spike	P	0 - 28
2327366	Beta-BHC	8.97	Spike	P	0 - 32
2327366	Beta-Cyfluthrin	6.71	Spike	P	0 - 41
2327366	Bifenthrin	3.20	Spike	P	0 - 36
2327366	Carbophenothion	29.4	Spike	P	0 - 30
2327366	Chlorothalonil	13.8	Spike	P	0 - 54
2327366	Cis-Nonachlor	5.11	Spike	P	0 - 33
2327366	Cypermethrin	12.0	Spike	P	0 - 38
2327366	Dacthal	4.54	Spike	P	0 - 23
2327366	DDD-p,p'	0.0301	Spike	P	0 - 35
2327366	DDE-p,p'	2.40	Spike	P	0 - 27
2327366	DDT-p,p'	0.00789	Spike	P	0 - 31
2327366	Delta-BHC	11.0	Spike	P	0 - 30
2327366	Deltamethrin	9.65	Spike	P	0 - 76
2327366	Dichlobenil	9.08	Spike	P	0 - 33
2327366	Dicofol	16.4	Spike	P	0 - 24
2327366	Dieldrin	8.35	Spike	P	0 - 35
2327366	Endosulfan I	5.46	Spike	P	0 - 25
2327366	Endosulfan II	15.5	Spike	P	0 - 31
2327366	Endosulfan Sulfate	30.5	Spike	P	0 - 38
2327366	Endrin	1.71	Spike	P	0 - 53
2327366	Endrin Aldehyde	1.83	Spike	P	0 - 81
2327366	Endrin Ketone	7.13	Spike	P	0 - 33
2327366	Esfenvalerate	6.33	Spike	P	0 - 46
2327366	Ethalfuralin	5.73	Spike	P	0 - 22
2327366	Fenpropathrin	13.0	Spike	P	0 - 29
2327366	Gamma-BHC	15.4	Spike	P	0 - 17
2327366	Gamma-Chlordane	1.02	Spike	P	0 - 28
2327366	Heptachlor	1.01	Spike	P	0 - 28
2327366	Heptachlor Epoxide	14.5	Spike	P	0 - 23
2327366	Hexachlorobenzene	1.93	Spike	P	0 - 22
2327366	Kepone	2.46	Spike	P	0 - 61
2327366	Lambda-Cyhalothrin	1.27	Spike	P	0 - 52
2327366	Methoprene	4.17	Spike	P	0 - 38
2327366	Methoxychlor	8.57	Spike	P	0 - 29
2327366	MGK-264	3.69	Spike	P	0 - 41
2327366	Mirex	1.73	Spike	P	0 - 39
2327366	Oxychlordane	6.69	Spike	P	0 - 33
2327366	Permethrin	5.99	Spike	P	0 - 39
2327366	Phenothrin	8.58	Spike	P	0 - 52
2327366	Piperonyl Butoxide	2.53	Spike	P	0 - 91
2327366	Prallethrin	4.20	Spike	P	0 - 34
2327366	Tau-Fluvalinate	8.77	Spike	P	0 - 41
2327366	Tetramethrin	1.73	Spike	P	0 - 43
2327366	Trans-Nonachlor	5.73	Spike	P	0 - 31
2327366	Triclosan Methyl	0.628	Spike	P	0 - 24
2327366	Trifluralin	5.00	Spike	P	0 - 23

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P413841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327303	Chlordane	5.22	Spike	P	0 - 25
2327303	Toxaphene	0.738	Spike	P	0 - 24

Reference Method: SM 2320 B-2011
Batch ID: P414260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327557	Total Alkalinity	0.201	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P414463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327580	TDS	0.797	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P414266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327557	Fluoride	0.530	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P414079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327376	Organic Carbon	0.455	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2327500
Field Sample ID: G1TLHR0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.1	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	52.8	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	67.4	P	30 - 97.0
EPA 8276	PCNB	81.8	P	45 - 119

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A112229

Included Lab Sample IDs: 2327496

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

Reference Method: DEP SOP: NU-094-1

Run ID: A112230

Included Lab Sample IDs: 2327496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	85 - 115

Reference Method: SM 5310 B-2011

Run ID: A112250

Included Lab Sample IDs: 2327497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	97.0	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A112346

Included Lab Sample IDs: 2327496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	96.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A112346

Included Lab Sample IDs: 2327496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A112355

Included Lab Sample IDs: 2327497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A112361

Included Lab Sample IDs: 2327496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.7	99.8	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A112381

Included Lab Sample IDs: 2327500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	82.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A112381
Included Lab Sample IDs: 2327500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	91.6		P	80 - 120
Alpha-Chlordane	89.4		P	80 - 120
Beta-BHC	87.9		P	80 - 120
Bifenthrin	86.8		P	80 - 120
Carbophenothion	92.7		P	80 - 120
Chlorothalonil	112		P	80 - 120
Cis-Nonachlor	118		P	80 - 120
Cypermethrin	80.4		P	80 - 120
Dacthal	89.9		P	80 - 120
DDD-p,p'	93.8		P	80 - 120
DDE-p,p'	97.8		P	80 - 120
DDT-p,p'	100		P	80 - 120
Delta-BHC	84.3		P	80 - 120
Dieldrin	108		P	80 - 120
Endosulfan I	83.2		P	80 - 120
Endosulfan II	83.2		P	80 - 120
Endosulfan Sulfate	81.9		P	80 - 120
Endrin Aldehyde	105		P	80 - 120
Endrin Ketone	97.2		P	80 - 120
Ethalfuralin	93.6		P	80 - 120
Fenpropathrin	89.2		P	80 - 120
Gamma-BHC	89.6		P	80 - 120
Gamma-Chlordane	85.6		P	80 - 120
Heptachlor	97.9		P	80 - 120
Heptachlor Epoxide	97.0		P	80 - 120
Hexachlorobenzene	90.5		P	80 - 120
Kepone	118		P	80 - 120
Methoprene	80.9		P	80 - 120
Methoxychlor	97.4		P	80 - 120
Mirex	87.0		P	80 - 120
Permethrin	84.3		P	80 - 120
Piperonyl Butoxide	81.8		P	80 - 120
Prallethrin	83.4		P	80 - 120
Tetramethrin	81.3		P	80 - 120
Trans-Nonachlor	96.3		P	80 - 120
Triclosan Methyl	93.1		P	80 - 120
Trifluralin	95.0		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A112397
Included Lab Sample IDs: 2327497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	97.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112404
Included Lab Sample IDs: 2327497

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A112425
Included Lab Sample IDs: 2327500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-Cyfluthrin	101		P	80 - 120
Deltamethrin	98.7		P	80 - 120
Dichlobenil	109		P	80 - 120
Endrin	99.1		P	80 - 120
Esfenvalerate	94.3		P	80 - 120
Lambda-Cyhalothrin	85.5		P	80 - 120
MGK-264	94.6		P	80 - 120
Oxychlordane	96.2		P	80 - 120
Phenothrin	92.8		P	80 - 120
Tau-Fluvalinate	96.0		P	80 - 120

Reference Method: EPA 8276
Run ID: A112459
Included Lab Sample IDs: 2327500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.0		P	80 - 120
Toxaphene	97.5		P	80 - 120

Reference Method: EPA 8270E
Run ID: A112470
Included Lab Sample IDs: 2327500

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A112525
Included Lab Sample IDs: 2327497

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

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	99.5				0.994	
EPA 180.1 Rev. 2.0	Turbidity	96.9				0.257	
EPA 300.0 Rev. 2.1	Chloride	100	94.9	97.8		0.0403	
	Sulfate	100	96.3	96.4			
EPA 350.1 Rev. 2.0	Ammonia-N	95.2	93.8	95.0			1.08
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	99.5	101			1.67
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	96.5	98.5	98.0			0.509
EPA 365.1 Rev. 2.0	Total-P	104	109	108			0.807
EPA 8270E	Aldrin	57.9	55.1	55.8			1.18
	Alpha-BHC	102	105	101			3.88
	Alpha-Chlordane	95.8					4.08
	Beta-BHC	106	123	112			8.97
	Beta-Cyfluthrin	102	25.4	27.2			6.71
	Bifenthrin	62.7	52.4	54.1			3.20
	Carbophenothion	76.9	88.9	66.2			29.4
	Chlorothalonil	166	225	196			13.8
	Cis-Nonachlor	88.0	75.8	71.4			5.11
	Cypermethrin	96.7	72.7	82.0			12.0
	Dacthal	105	105	110			4.54
	DDD-p,p'	104	93.6	93.5			0.0301
	DDE-p,p'	104	92.5	94.8			2.40
	DDT-p,p'	98.4	79.2	79.2			0.0078
	Delta-BHC	103	126	113			11.0
	Deltamethrin	111	84.5	93.1			9.65
	Dichlobenil	93.2	93.1	85.0			9.08
	Dicofol	93.7	75.1	88.5			16.4
	Dieldrin	84.9	101	110			8.35
	Endosulfan I	97.4	83.5	88.2			5.46
	Endosulfan II	103	89.5	104			15.5
	Endosulfan Sulfate	110	109	80.3			30.5
	Endrin	101	87.3	88.8			1.71
	Endrin Aldehyde	109	76.5	77.9			1.83
	Endrin Ketone	100	95.2	88.7			7.13
	Esfenvalerate	93.4	77.2	82.3			6.33
	Ethalfuralin	92.0	92.6	87.4			5.73
	Fenpropathrin	75.3	69.0	60.6			13.0
	Gamma-BHC	96.1	112	95.9			15.4
	Gamma-Chlordane	93.3					1.02
	Heptachlor	87.5	76.4	77.1			1.01
	Heptachlor Epoxide	102					14.5
	Hexachlorobenzene	85.7	80.2	78.7			1.93
	Kepone	163					2.46
	Lambda-Cyhalothrin	78.6	67.1	67.9			1.27
	Methoprene	76.9	68.2	71.1			4.17
	Methoxychlor	74.2	69.6	75.8			8.57
	MGK-264	80.2	90.9	94.5			3.69
	Mirex	81.8	70.2	71.4			1.73
	Oxychlordane	91.5	106	99.6			6.69
	Permethrin	93.5	72.0	76.4			5.99
	Phenothrin	62.1	62.1	67.6			8.58
	Piperonyl Butoxide	103	92.5	90.2			2.53
	Prallethrin	76.5	72.6	75.7			4.20
	Tau-Fluvalinate	89.8	70.3	76.7			8.77
	Tetramethrin	73.7	80.9	79.5			1.73

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Trans-Nonachlor	106	92.6	101		5.73
	Triclosan Methyl	103	108	107		0.628
	Trifluralin	88.1	85.8	81.6		5.00
EPA 8276	Chlordane	86.9	95.5	101		5.22
	Toxaphene	83.0	107	107		0.738
SM 2320 B-2011	Total Alkalinity	98.4			0.201	
SM 2540 C-2011	TDS				0.797	
SM 4500-F- C-2011	Fluoride	96.5	97.0	97.6		0.530
SM 5310 B-2011	Organic Carbon	96.4	94.9	95.5		0.455

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2327496
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2327496
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2327496
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2327496
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2327497
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2327497
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2327497
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2327497
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2327500
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2327500
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2327496
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2327496
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2327496
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2327496
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2327497

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	05/17/2022			05/18/2022 15:33	Sarah A Nixon	2327496
EPA 180.1 Rev. 2.0	05/17/2022			05/18/2022 14:21	Khloe J Berg	2327496
EPA 300.0 Rev. 2.1	05/17/2022			05/23/2022 21:18	Anna M. Plaviak	2327496
EPA 350.1 Rev. 2.0	05/17/2022			05/25/2022 12:49	Ping Hua	2327497
EPA 351.2 Rev. 2.0	05/17/2022	05/25/2022 12:34	Samantha L Bates	05/31/2022 14:57	Alexandra J Mattheus	2327497
EPA 353.2 Rev. 2.0	05/17/2022			05/24/2022 10:08	Beverly Y. Sanders	2327497
EPA 365.1 Rev. 2.0	05/17/2022	05/20/2022 15:00	Simonne.V. Calhoun	05/25/2022 16:19	James L Waggerby	2327497
EPA 8270E	05/17/2022	05/18/2022 08:00	Fe-Val Siddell	05/21/2022 23:28	Michael Poppell	2327500
	05/17/2022	05/18/2022 08:00	Fe-Val Siddell	05/25/2022 04:09	Michael Poppell	2327500
	05/17/2022	05/18/2022 08:00	Fe-Val Siddell	05/27/2022 22:41	Michael Poppell	2327500
EPA 8276	05/17/2022	05/18/2022 08:00	Fe-Val Siddell	05/23/2022 15:56	Julie Wi	2327500
SM 2320 B-2011	05/17/2022			05/21/2022 07:24	Dale L. Simmons	2327496
SM 2540 C-2011	05/17/2022			05/20/2022 12:55	Ping Hua	2327496
SM 2540 D-2011	05/17/2022			05/20/2022 12:55	Ping Hua	2327496
SM 4500-F- C-2011	05/17/2022			05/21/2022 07:24	Dale L. Simmons	2327496
SM 5310 B-2011	05/17/2022			05/19/2022 09:32	Judith K. Clark	2327497