

Chemical Analysis Report

SW-DIST-2022-06-03-01

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

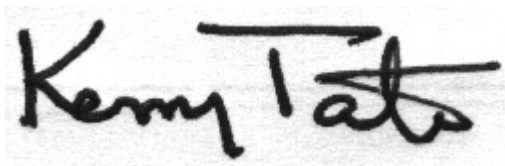
Event Description: **2022 Run 11**
Request ID: **RQ-2022-06-06-28**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 27-JUN-2022 11:46

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first few letters of the last name.

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: Lake Hanna Outlet @ Livingston Ave

Collection Date/Time: 06/02/2022 10:00

Field ID: G2SW0143

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2331723	DEP SOP: NU-094-1	Color (true)**	56		PCU	P414727	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P414724	
	EPA 300.0 Rev. 2.1	Chloride	42		mg Cl/L	P415040	
		Sulfate	8.4		mg SO4/L	P415045	
	SM 2320 B-2011	Total Alkalinity	72		mg CaCO3/L	P415385	
	SM 2540 C-2011	TDS	177		mg/L	P415284	
	SM 2540 D-2011	TSS	3	I	mg/L	P414896	
	SM 4500-F- C-2011	Fluoride	0.048	I	mg F/L	P415390	
2331726	EPA 350.1 Rev. 2.0	Ammonia-N	0.75		mg N/L	P415381	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P415255	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.44		mg N/L	P414944	
	EPA 365.1 Rev. 2.0	Total-P	0.32		mg P/L	P414864	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P414811	

Ref. Method and Comment:

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

Sample Location: Lake Hanna Outlet @ Hanna Road

Collection Date/Time: 06/02/2022 10:30

Field ID: G2SW0142

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2331724	DEP SOP: NU-094-1	Color (true)**	50		PCU	P414727	
	EPA 180.1 Rev. 2.0	Turbidity	0.95	I	NTU	P414724	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P415040	
		Sulfate	4.2		mg SO4/L	P415045	
	SM 2320 B-2011	Total Alkalinity	32		mg CaCO3/L	P415385	
	SM 2540 C-2011	TDS	120		mg/L	P415284	
	SM 2540 D-2011	TSS	2	U	mg/L	P414896	
	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P415390	
2331727	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P415381	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P415354	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P414944	
	EPA 365.1 Rev. 2.0	Total-P	0.027		mg P/L	P414864	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P414811	

Ref. Method and Comment:

SM 2540 C-2011: The reported result is consistent with the conductivity measured in the laboratory, 202 umhos/cm.

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample. Batch relative percent difference is unavailable because of analytical difficulties.

Sample Location: Hollin Creek @ Cypress Run Golf Club

Collection Date/Time: 06/02/2022 11:30

Field ID: G5SW0186

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2331752	EPA 8321B	2,4-D	0.013		ug/L	P414735	
		Acesulfame K	0.10	U	ug/L	P414771	
		2,4,5-T	0.0040	U	ug/L	P414735	
		AMPA	0.16	I	ug/L	P414771	
		Acetaminophen	0.0080	U	ug/L	P414735	
		Acetamiprid	0.0020	U	ug/L	P414735	
		Endothall	0.25	U	ug/L	P414771	
		Glufosinate	0.10	U	ug/L	P414771	
		Glyphosate	0.30	I	ug/L	P414771	
		Afidopyropen	0.0020	U	ug/L	P414735	
		Bentazon	0.070		ug/L	P414735	
		Sucralose	0.019	I	ug/L	P414771	
		Benzovindiflupyr	0.0020	U	ug/L	P414735	
		Carbamazepine	0.0010	I	ug/L	P414735	
		Clothianidin	0.020		ug/L	P414735	
		Dinotefuran	0.0020	U	ug/L	P414735	
		Diuron	0.0075	I	ug/L	P414735	
		Fenuron	0.032	U	ug/L	P414735	
		Fluridone	0.012		ug/L	P414735	
		Imazapyr	0.047		ug/L	P414735	
		Hydrocodone	0.0020	U	ug/L	P414735	
		Ibuprofen	0.020	U	ug/L	P414735	
		Imidacloprid	0.048		ug/L	P414735	
		Linuron	0.0040	U	ug/L	P414735	
		Mandestrobin	0.0020	U	ug/L	P414735	
		MCPP	0.0054	I	ug/L	P414735	
		Naproxen	0.0080	U	ug/L	P414735	
		Primidone	0.0040	U	ug/L	P414735	
		Pyraclostrobin	0.0020	U	ug/L	P414735	
		Silvex	0.0040	U	ug/L	P414735	
		Thiamethoxam	0.0020	U	ug/L	P414735	
		Tolfenpyrad	0.0020	U	ug/L	P414735	
		Triclopyr	0.0040	U	ug/L	P414735	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Pepper Mound Creek @ Bay Vue

Collection Date/Time: 06/02/2022 13:00

Field ID: G1SW0125

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2331725	DEP SOP: NU-094-1	Color (true)**	54		PCU	P414727	
	EPA 180.1 Rev. 2.0	Turbidity	9.8		NTU	P414724	
	EPA 300.0 Rev. 2.1	Chloride	710		mg Cl/L	P415040	
		Sulfate	110		mg SO4/L	P415045	
	SM 2320 B-2011	Total Alkalinity	90		mg CaCO3/L	P415385	
	SM 2540 C-2011	TDS	1.40E+03		mg/L	P415284	
	SM 2540 D-2011	TSS	15		mg/L	P414896	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P415390	
2331728	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P415440	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P415257	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P414944	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P414865	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P414811	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P414727

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414724

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415040

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415045

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415381

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415440

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415255

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415257

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415354

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414944

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414864

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414865

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

Reference Method: EPA 8321B
Batch ID: P414735

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	0.020	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	0.0040	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: EPA 8321B
Batch ID: P414771

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P414771

Component	Result	Code	Units
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P415385

Component	Result	Code	Units
Total Alkalinity	1.0	U	mg CaCO3/L

Reference Method: SM 2540 C-2011
Batch ID: P415284

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P414896

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P415390

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P414811

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: P414727

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415381

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415440

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415255

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415257

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415354

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414944

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414864

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414865

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

Reference Method: EPA 8321B
Batch ID: P414735

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	99.5		P	40 - 150
2,4,5-T	90.7		P	40 - 150
Acetaminophen	85.8		P	30 - 150
Acetamiprid	82.0		P	40 - 150
Afidopyropen	44.1		P	30 - 150
Bentazon	90.9		P	30 - 150
Benzovindiflupyr	90.9		P	40 - 150
Carbamazepine	97.5		P	40 - 150
Clothianidin	93.8		P	40 - 150
Dinotefuran	93.0		P	40 - 150
Diuron	79.0		P	40 - 150
Fenuron	90.4		P	40 - 150
Fluridone	82.8		P	40 - 150
Hydrocodone	88.6		P	40 - 150
Ibuprofen	83.6		P	40 - 150
Imazapyr	91.8		P	40 - 150
Imidacloprid	87.1		P	40 - 150
Linuron	71.9		P	40 - 150
Mandestrobin	79.7		P	40 - 150
MCPP	105		P	40 - 150
Naproxen	87.0		P	40 - 150
Primidone	95.1		P	40 - 150
Pyraclostrobin	87.4		P	40 - 150
Silvex	83.3		P	40 - 150
Thiamethoxam	89.1		P	40 - 150
Tolfenpyrad	53.2		P	30 - 150
Triclopyr	89.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P414771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	140		P	40 - 150
AMPA	88.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P414771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endothall	75.1		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	90.7		P	40 - 150
Sucralose	113		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P415385

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P415390

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414811

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331662	Chloride	95.0		P	90 - 110
2331663	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331662	Sulfate	96.0		P	90 - 110
2331663	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331515	Ammonia-N	105	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331664	Ammonia-N	105	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331515	Kjeldahl Nitrogen	91.6	87.8	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415257

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331633	Kjeldahl Nitrogen	96.1	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414944

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331665	NO2NO3-N	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331726	Total-P	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331878	Total-P	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P414735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331275	2,4,5-T	104	97.2	P/P	40 - 150
2331275	Acetaminophen	110	110	P/P	30 - 150
2331275	Acetamiprid	83.9	75.6	P/P	40 - 150
2331275	Afidopyropen	46.4	47.8	P/P	30 - 150
2331275	Benzovindiflupyr	88.0	87.4	P/P	40 - 150
2331275	Carbamazepine	110	108	P/P	40 - 150
2331275	Clothianidin	119	118	P/P	40 - 150
2331275	Dinotefuran	135	130	P/P	40 - 150
2331275	Diuron	79.1	84.5	P/P	40 - 150
2331275	Fenuron	83.8	81.5	P/P	40 - 150
2331275	Fluridone	83.5	83.7	P/P	40 - 150
2331275	Hydrocodone	100	100	P/P	40 - 150
2331275	Ibuprofen	84.4	86.9	P/P	40 - 150
2331275	Imidacloprid	147	137	P/P	40 - 150
2331275	Linuron	69.7	72.7	P/P	40 - 150
2331275	Mandestrobin	83.7	82.5	P/P	40 - 150
2331275	MCCP	123	121	P/P	40 - 150
2331275	Naproxen	91.1	76.2	P/P	40 - 150
2331275	Primidone	118	117	P/P	40 - 150
2331275	Pyraclostrobin	83.6	77.5	P/P	40 - 150
2331275	Silvex	99.6	91.8	P/P	40 - 150
2331275	Thiamethoxam	140	134	P/P	40 - 150
2331275	Tolfenpyrad	57.0	53.6	P/P	30 - 150
2331275	Triclopyr	113	100	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P414771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331315	Acesulfame K	125	127	P/P	40 - 150
2331315	AMPA	67.0	61.8	P/P	40 - 150
2331315	Endothall	72.4	72.9	P/P	40 - 150
2331315	Glufosinate	92.8	82.8	P/P	40 - 150
2331315	Glyphosate	79.9	97.2	P/P	40 - 150
2331315	Sucralose	108	112	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P415390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331887	Fluoride	99.1	99.7	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P414811

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2331634	Organic Carbon	96.9	96.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P414727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331632	Color (true)	2.58	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331630	Turbidity	2.03	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331662	Chloride	0.268	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331662	Sulfate	1.05	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331515	Ammonia-N	0.957	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331664	Ammonia-N	1.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331515	Kjeldahl Nitrogen	3.78	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331633	Kjeldahl Nitrogen	1.44	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P414944

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331665	NO2NO3-N	0.948	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P414864

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331726	Total-P	0.557	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P414865

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331878	Total-P	0.433	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P414735

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331275	2,4-D	0.530	Spike	P	0 - 30
2331275	2,4,5-T	7.18	Spike	P	0 - 30
2331275	Acetaminophen	0.0692	Spike	P	0 - 30
2331275	Acetamiprid	10.4	Spike	P	0 - 30
2331275	Afidopyropen	3.15	Spike	P	0 - 30
2331275	Benzovindiflupyr	0.688	Spike	P	0 - 30
2331275	Carbamazepine	1.45	Spike	P	0 - 30
2331275	Clothianidin	0.345	Spike	P	0 - 30
2331275	Dinotefuran	3.11	Spike	P	0 - 30
2331275	Diuron	6.36	Spike	P	0 - 30
2331275	Fenuron	2.78	Spike	P	0 - 30
2331275	Fluridone	0.0989	Spike	P	0 - 30
2331275	Hydrocodone	0.0943	Spike	P	0 - 30
2331275	Ibuprofen	2.89	Spike	P	0 - 30
2331275	Imazapyr	0.196	Spike	P	0 - 30
2331275	Imidacloprid	5.86	Spike	P	0 - 30
2331275	Linuron	4.22	Spike	P	0 - 30
2331275	Mandestrobin	1.47	Spike	P	0 - 30
2331275	MCPP	1.14	Spike	P	0 - 30
2331275	Naproxen	17.8	Spike	P	0 - 30
2331275	Primidone	1.40	Spike	P	0 - 30
2331275	Pyraclostrobin	7.59	Spike	P	0 - 30
2331275	Silvex	8.15	Spike	P	0 - 30
2331275	Thiamethoxam	4.75	Spike	P	0 - 30
2331275	Tolfenpyrad	6.32	Spike	P	0 - 30
2331275	Triclopyr	11.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P414771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331315	Acesulfame K	1.58	Spike	P	0 - 30
2331315	AMPA	4.94	Spike	P	0 - 30
2331315	Endothall	0.753	Spike	P	0 - 30
2331315	Glufosinate	11.4	Spike	P	0 - 30
2331315	Glyphosate	9.62	Spike	P	0 - 30
2331315	Sucralose	3.90	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P415385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331887	Total Alkalinity	0.396	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P415284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331615	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P415390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331887	Fluoride	0.476	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011

Batch ID: P414811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2331634	Organic Carbon	0.140	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2331752

Field Sample ID: G5SW0186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	74.2	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.8	P	30 - 160
EPA 8321B	Primidone-d5	98.7	P	30 - 160
EPA 8321B	Sucralose-d6	151	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A112604

Included Lab Sample IDs: 2331723, 2331724, 2331725

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: A112605

Included Lab Sample IDs: 2331723, 2331724, 2331725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	105	P/P	85 - 115

Reference Method: SM 5310 B-2011

Run ID: A112642

Included Lab Sample IDs: 2331726, 2331727, 2331728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.3	97.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A112660

Included Lab Sample IDs: 2331752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	143	154	P/P	60 - 160
Sucralose	110	115	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A112661

Included Lab Sample IDs: 2331752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	88.8	91.9	P/P	60 - 160
Endothall	70.5	67.5	P/P	60 - 160
Glufosinate	102	99.0	P/P	60 - 160
Glyphosate	92.9	95.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A112673

Included Lab Sample IDs: 2331752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.1	95.2	P/P	50 - 150
2,4,5-T	99.5	103	P/P	50 - 150
Acetaminophen	104	103	P/P	60 - 160
Acetamiprid	103	101	P/P	50 - 150
Afidopyropen	97.0	97.7	P/P	50 - 150
Bentazon	101	108	P/P	50 - 160
Benzovindiflupyr	113	105	P/P	50 - 150
Carbamazepine	104	101	P/P	60 - 150
Clothianidin	107	99.8	P/P	60 - 150
Dinotefuran	102	102	P/P	50 - 150
Diuron	97.8	102	P/P	60 - 160
Fenuron	103	101	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A112673
Included Lab Sample IDs: 2331752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	110	114	P/P	60 - 160
Hydrocodone	97.9	98.8	P/P	60 - 150
Ibuprofen	108	101	P/P	50 - 160
Imazapyr	91.7	92.4	P/P	50 - 150
Imidacloprid	97.2	90.9	P/P	60 - 150
Linuron	106	98.7	P/P	60 - 150
Mandestrobin	108	110	P/P	50 - 150
MCPP	93.6	88.3	P/P	50 - 150
Naproxen	105	131	P/P	50 - 160
Primidone	103	102	P/P	60 - 150
Pyraclostrobin	108	108	P/P	60 - 150
Silvex	94.1	93.3	P/P	50 - 150
Thiamethoxam	99.4	99.4	P/P	50 - 150
Tolfenpyrad	102	104	P/P	60 - 150
Triclopyr	96.7	90.5	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A112696
Included Lab Sample IDs: 2331726, 2331727, 2331728

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A112707
Included Lab Sample IDs: 2331723, 2331724, 2331725

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112729
Included Lab Sample IDs: 2331728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.1	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112731
Included Lab Sample IDs: 2331726

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.7	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112732
Included Lab Sample IDs: 2331727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	97.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A112905

Included Lab Sample IDs: 2331726, 2331727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	98.2	P/P	90 - 110
Ammonia-N	99.4	98.7	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A112906

Included Lab Sample IDs: 2331723, 2331724, 2331725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.5	P/P	90 - 110
Total Alkalinity	99.5	102	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A112906

Included Lab Sample IDs: 2331723, 2331724, 2331725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.5	P/P	90 - 110
Fluoride	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A112932

Included Lab Sample IDs: 2331728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A112942

Included Lab Sample IDs: 2331726, 2331728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	99.3	P/P	90 - 110
Kjeldahl Nitrogen	99.3	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A112973

Included Lab Sample IDs: 2331727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	108	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)	102				2.58	
EPA 180.1 Rev. 2.0	Turbidity	96.6				2.03	
EPA 300.0 Rev. 2.1	Chloride	97.6	95.0	97.9		0.268	
	Sulfate	97.2	96.0	97.8		1.05	
EPA 350.1 Rev. 2.0	Ammonia-N	101	105	104			0.957
	Ammonia-N	103	105	103			1.22
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	91.6	87.8			3.78
	Kjeldahl Nitrogen	95.4	96.1	94.0			1.44
	Kjeldahl Nitrogen	106					
EPA 353.2 Rev. 2.0	NO2NO3-N	103	106	105			0.948
EPA 365.1 Rev. 2.0	Total-P	102	101	100			0.557
	Total-P	100	102	102			0.433
EPA 8321B	2,4-D	99.5					0.530
	2,4,5-T	90.7	97.2	104			7.18
	Acesulfame K	140	125	127			1.58
	Acetaminophen	85.8	110	110			0.0692
	Acetamiprid	82.0	83.9	75.6			10.4
	Afidopyropen	44.1	46.4	47.8			3.15
	AMPA	88.9	67.0	61.8			4.94
	Bentazon	90.9					
	Benzovindiflupyr	90.9	87.4	88.0			0.688
	Carbamazepine	97.5	110	108			1.45
	Clothianidin	93.8	119	118			0.345
	Dinotefuran	93.0	135	130			3.11
	Diuron	79.0	79.1	84.5			6.36
	Endothall	75.1	72.4	72.9			0.753
	Fenuron	90.4	83.8	81.5			2.78
	Fluridone	82.8	83.7	83.5			0.0989
	Glufosinate	101	92.8	82.8			11.4
	Glyphosate	90.7	79.9	97.2			9.62
	Hydrocodone	88.6	100	100			0.0943
	Ibuprofen	83.6	86.9	84.4			2.89
	Imazapyr	91.8					0.196
	Imidacloprid	87.1	147	137			5.86
	Linuron	71.9	72.7	69.7			4.22
	Mandestrobin	79.7	82.5	83.7			1.47
	MCPP	105	121	123			1.14
	Naproxen	87.0	76.2	91.1			17.8
	Primidone	95.1	118	117			1.40
	Pyraclostrobin	87.4	77.5	83.6			7.59
	Silvex	83.3	91.8	99.6			8.15
	Sucralose	113	108	112			3.90
	Thiamethoxam	89.1	140	134			4.75
	Tolfenpyrad	53.2	53.6	57.0			6.32
	Triclopyr	89.8	100	113			11.9
SM 2320 B-2011	Total Alkalinity	102				0.396	
SM 2540 C-2011	TDS					0.0	
SM 4500-F- C-2011	Fluoride	98.9	99.1	99.7			0.476
SM 5310 B-2011	Organic Carbon	93.2	96.9	96.7			0.140

Reference Method Descriptions

Method	Description	Associated Samples
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Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2331723, 2331724, 2331725
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2331723, 2331724, 2331725
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2331723, 2331724, 2331725
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2331723, 2331724, 2331725
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2331726, 2331727, 2331728
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2331726, 2331727, 2331728
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2331726, 2331727, 2331728
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2331726, 2331727, 2331728
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2331752
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2331723, 2331724, 2331725
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2331723, 2331724, 2331725
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2331723, 2331724, 2331725
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2331723, 2331724, 2331725
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2331726, 2331727, 2331728

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	06/03/2022			06/03/2022 17:05	Anna M. Plaviak	2331723
	06/03/2022			06/03/2022 17:06	Anna M. Plaviak	2331724
	06/03/2022			06/03/2022 17:07	Anna M. Plaviak	2331725
EPA 180.1 Rev. 2.0	06/03/2022			06/03/2022 14:14	Khloe J Berg	2331723
	06/03/2022			06/03/2022 14:17	Khloe J Berg	2331724, 2331725
EPA 300.0 Rev. 2.1	06/03/2022			06/09/2022 18:58	Anna M. Plaviak	2331723
	06/03/2022			06/09/2022 19:10	Anna M. Plaviak	2331724
	06/03/2022			06/09/2022 19:22	Anna M. Plaviak	2331725
EPA 350.1 Rev. 2.0	06/03/2022			06/17/2022 16:19	Ping Hua	2331727
	06/03/2022			06/17/2022 16:31	Ping Hua	2331726
	06/03/2022			06/20/2022 14:18	Ping Hua	2331728
EPA 351.2 Rev. 2.0	06/03/2022	06/17/2022 11:47	Samantha L Bates	06/20/2022 14:56	Alexandra J Mattheus	2331726
	06/03/2022	06/17/2022 11:47	Samantha L Bates	06/20/2022 15:21	Alexandra J Mattheus	2331728
	06/03/2022	06/20/2022 16:21	Samantha L Bates	06/21/2022 12:11	Alexandra J Mattheus	2331727
EPA 353.2 Rev. 2.0	06/03/2022			06/07/2022 17:18	Touraj Touran	2331726
	06/03/2022			06/07/2022 17:19	Touraj Touran	2331727
	06/03/2022			06/07/2022 17:20	Touraj Touran	2331728
EPA 365.1 Rev. 2.0	06/03/2022	06/08/2022 15:25	Adam P Silver	06/09/2022 10:31	James L Waggeberby	2331728
	06/03/2022	06/08/2022 15:25	Adam P Silver	06/09/2022 16:38	James L Waggeberby	2331727
	06/03/2022	06/08/2022 15:25	Adam P Silver	06/09/2022 16:39	James L Waggeberby	2331726
EPA 8321B	06/03/2022	06/06/2022 09:00	Hoor Shaik	06/07/2022 08:29	Juyoung Kim	2331752
	06/03/2022	06/07/2022 10:00	Umesh Chiluwai	06/07/2022 15:40	Umesh Chiluwai	2331752
	06/03/2022	06/07/2022 10:00	Umesh Chiluwai	06/07/2022 23:39	Umesh Chiluwai	2331752
SM 2320 B-2011	06/03/2022			06/16/2022 05:31	Dale L. Simmons	2331723
	06/03/2022			06/16/2022 06:21	Dale L. Simmons	2331724
	06/03/2022			06/16/2022 07:04	Dale L. Simmons	2331725
SM 2540 C-2011	06/03/2022			06/07/2022 14:33	Ping Hua	2331723, 2331724, 2331725
SM 2540 D-2011	06/03/2022			06/07/2022 14:32	Ping Hua	2331723, 2331724, 2331725
SM 4500-F- C-2011	06/03/2022			06/16/2022 05:31	Dale L. Simmons	2331723
	06/03/2022			06/16/2022 06:21	Dale L. Simmons	2331724
	06/03/2022			06/16/2022 07:04	Dale L. Simmons	2331725
SM 5310 B-2011	06/03/2022			06/06/2022 22:40	Khloe J Berg	2331726
	06/03/2022			06/06/2022 22:55	Khloe J Berg	2331727
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