

Chemical Analysis Report

SW-DIST-2020-02-18-01

Florida Department of Environmental Protection
Central Laboratory
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DOH Accreditation E31780

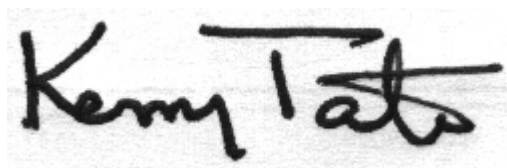
Event Description: **Harvey & Starvation**
Request ID: **RQ-2020-02-17-14**
Customer: **SW-DIST**
Project ID: **SMP**

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 10-MAR-2020 13:46

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 "T" and a long, sweeping underline.

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 Harvey Center

Collection Date/Time: 02/17/2020 10:15

Field ID: G1SW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158367	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P379136	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P379681	
		Sulfate	3.5		mg SO4/L	P379684	
	SM 2120 B-2011	Color (true)	65		PCU	P379205	
	SM 2320 B-2011	Total Alkalinity	29		mg CaCO3/L	P379416	
	SM 2540 C-2011	TDS	99		mg/L	P379819	
	SM 2540 D-2011	TSS	2	I	mg/L	P379599	
	SM 4500 F-C-2011	Fluoride	0.068	I	mg F/L	P379421	
2158369	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P379731	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P379264	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379551	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P379657	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P379360	
2158371	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P379142	
2158377	EPA 8321B	2,4-D	0.0020	U	ug/L	P379190	
		Acesulfame K**	0.20	I	ug/L	P379179	
		AMPA**	0.10	U	ug/L	P379179	
		Sucralose**	0.49		ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	UJ	ug/L	P379190	RPD
		Glufosinate**	0.10	UJ	ug/L	P379179	MS
		Glyphosate**	0.10	UJ	ug/L	P379179	MS
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	0.045		ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0020	U	ug/L	P379190	
		Dinotefuran**	0.0020	U	ug/L	P379190	
		Diuron	0.0020	U	ug/L	P379190	
		Fenuron	0.016	U	ug/L	P379190	
		Fluridone**	0.0045		ug/L	P379190	
		Imazapyr**	0.12		ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.0025	I	ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCP	0.0020	U	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0020	U	ug/L	P379190	
		Thiamethoxam**	0.0020	U	ug/L	P379190	

Field ID: G1SW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158377	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Starvation Lake @ Center

Collection Date/Time: 02/17/2020 11:50

Field ID: G1SW0110

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158368	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P379135	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P379681	
		Sulfate	1.7		mg SO4/L	P379684	
	SM 2120 B-2011	Color (true)	61	A	PCU	P379205	
	SM 2320 B-2011	Total Alkalinity	28		mg CaCO3/L	P379416	
	SM 2540 C-2011	TDS	82		mg/L	P379819	
	SM 2540 D-2011	TSS	2	U	mg/L	P379599	
	SM 4500 F-C-2011	Fluoride	0.093	I	mg F/L	P379421	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P379567	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P379264	MS
2158370	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379551	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P379657	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P379360	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P379142	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P379190	
2158372		Acesulfame K**	0.10	U	ug/L	P379179	
		AMPA**	0.10	U	ug/L	P379179	
		Sucralose**	0.85		ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	U	ug/L	P379190	RPD
		Glufosinate**	0.10	U	ug/L	P379179	MS
		Glyphosate**	0.10	U	ug/L	P379179	MS
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	0.0094		ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0020	U	ug/L	P379190	
		Dinotefuran**	0.0020	U	ug/L	P379190	
		Diuron	0.0020	U	ug/L	P379190	
		Fenuron	0.016	U	ug/L	P379190	
		Fluridone**	0.012		ug/L	P379190	
		Imazapyr**	0.052		ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.0020	U	ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCPD	0.0020	U	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0020	U	ug/L	P379190	
		Thiamethoxam**	0.0020	U	ug/L	P379190	

Field ID: G1SW0110

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158378	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379135

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379136

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379567

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379731

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379264

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379551

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379657

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379142

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P379179

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: P379190

Component	Result	Code	Units
2,4-D	0.0020	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	0.016	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	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P379205

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P379416

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

Reference Method: SM 2540 C-2011
Batch ID: P379819

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379599

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379360

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379567

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379731

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379264

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379551

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379657

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379142

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

Reference Method: EPA 8321B
Batch ID: P379179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.5		P	40 - 150
AMPA	98.1		P	40 - 150
Endothall	86.8		P	40 - 150
Glufosinate	95.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	93.1		P	40 - 140
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	133		P	30 - 160
Acetaminophen	88.1		P	30 - 160
Acetamiprid	82.0		P	30 - 160
Afidopyropen	71.5		P	30 - 160
Bentazon	76.6		P	30 - 160
Benzovindiflupyr	78.1		P	30 - 160
Carbamazepine	80.5		P	30 - 160
Clothianidin	70.9		P	30 - 160
Dinotefuran	79.0		P	30 - 160
Diuron	78.7		P	30 - 160
Fenuron	91.3		P	30 - 160
Fluridone	92.4		P	30 - 160
Hydrocodone	82.6		P	30 - 160
Ibuprofen	86.7		P	30 - 160
Imazapyr	90.1		P	30 - 160
Imidacloprid	89.6		P	30 - 160
Linuron	73.5		P	30 - 160
Mandestrobin	87.7		P	30 - 160
MCPP	131		P	30 - 160
Naproxen	83.9		P	30 - 160
Primidone	79.7		P	30 - 160
Pyraclostrobin	82.3		P	30 - 160
Thiamethoxam	86.9		P	30 - 160
Tolfenpyrad	58.6		P	30 - 160
Triclopyr	105		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P379205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P379416

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	92 - 103

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P379360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P379681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158344	Chloride	100		P	90 - 110
2158391	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P379684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158344	Sulfate	98.8		P	90 - 110
2158391	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P379567

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158370	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P379731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158298	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P379264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158379	Kjeldahl Nitrogen	86.6	103	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P379551

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158369	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P379657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158369	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P379142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158283	O-Phosphate-P	99.6	100	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P379179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	Acesulfame K	79.3	75.2	P/P	40 - 150
2158377	AMPA	83.7	77.7	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P379179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	Endothall	106	97.5	P/P	40 - 150
2158377	Glufosinate	195	246	F/F	40 - 150
2158377	Glyphosate	183	213	F/F	40 - 140
2158377	Sucralose	108	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	2,4-D	131	142	P/P	30 - 160
2158377	Acetaminophen	92.5	114	P/P	30 - 160
2158377	Acetamiprid	78.4	57.3	P/P	30 - 160
2158377	Afidopyropen	87.0	80.3	P/P	30 - 160
2158377	Benzovindiflupyr	75.4	82.7	P/P	30 - 160
2158377	Carbamazepine	66.9	70.5	P/P	30 - 160
2158377	Clothianidin	92.3	104	P/P	30 - 160
2158377	Dinotefuran	119	120	P/P	30 - 160
2158377	Diuron	63.8	65.4	P/P	30 - 160
2158377	Fenuron	77.4	71.1	P/P	30 - 160
2158377	Fluridone	88.0	90.0	P/P	30 - 160
2158377	Hydrocodone	78.4	95.1	P/P	30 - 160
2158377	Ibuprofen	79.4	82.2	P/P	30 - 160
2158377	Imidacloprid	157	138	P/P	30 - 160
2158377	Linuron	75.0	71.5	P/P	30 - 160
2158377	Mandestrobin	84.9	88.5	P/P	30 - 160
2158377	MCP	133	134	P/P	30 - 160
2158377	Naproxen	97.3	117	P/P	30 - 160
2158377	Primidone	85.7	88.2	P/P	30 - 160
2158377	Pyraclostrobin	83.5	88.0	P/P	30 - 160
2158377	Thiamethoxam	108	121	P/P	30 - 160
2158377	Tolfenpyrad	57.1	57.5	P/P	30 - 160
2158377	Triclopyr	115	130	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158297	Fluoride	98.8	99.3	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158369	Organic Carbon	101	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379135

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158302	Turbidity	0.966	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158305	Turbidity	2.18	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158344	Chloride	1.30	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158344	Sulfate	1.23	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379567

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158370	Ammonia-N	0.937	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158298	Ammonia-N	0.285	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158379	Kjeldahl Nitrogen	9.33	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379551

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158369	NO2NO3-N	0.501	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158369	Total-P	0.385	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158283	O-Phosphate-P	0.203	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P379179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	Acesulfame K	4.80	Spike	P	0 - 30
2158377	AMPA	7.50	Spike	P	0 - 30
2158377	Endothall	8.73	Spike	P	0 - 30
2158377	Glufosinate	23.2	Spike	P	0 - 30
2158377	Glyphosate	15.1	Spike	P	0 - 30
2158377	Sucralose	5.72	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	2,4-D	8.66	Spike	P	0 - 30
2158377	Acetaminophen	20.6	Spike	P	0 - 30
2158377	Acetamiprid	31.1	Spike	F	0 - 30
2158377	Afidopyropen	8.04	Spike	P	0 - 30
2158377	Bentazon	21.0	Spike	P	0 - 30
2158377	Benzovindiflupyr	9.23	Spike	P	0 - 30
2158377	Carbamazepine	5.32	Spike	P	0 - 30
2158377	Clothianidin	12.3	Spike	P	0 - 30
2158377	Dinotefuran	0.777	Spike	P	0 - 30
2158377	Diuron	2.51	Spike	P	0 - 30
2158377	Fenuron	8.43	Spike	P	0 - 30
2158377	Fluridone	1.75	Spike	P	0 - 30
2158377	Hydrocodone	19.2	Spike	P	0 - 30
2158377	Ibuprofen	3.35	Spike	P	0 - 30
2158377	Imazapyr	2.90	Spike	P	0 - 30
2158377	Imidacloprid	12.8	Spike	P	0 - 30
2158377	Linuron	4.70	Spike	P	0 - 30
2158377	Mandestrobin	4.07	Spike	P	0 - 30
2158377	MCPP	0.847	Spike	P	0 - 30
2158377	Naproxen	18.7	Spike	P	0 - 30
2158377	Primidone	2.92	Spike	P	0 - 30
2158377	Pyraclostrobin	5.19	Spike	P	0 - 30
2158377	Thiamethoxam	11.2	Spike	P	0 - 30
2158377	Tolfenpyrad	0.759	Spike	P	0 - 30
2158377	Triclopyr	11.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P379205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158368	Color (true)	1.58	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P379416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158297	Total Alkalinity	0.288	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158344	TDS	3.23	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P379421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158297	Fluoride	0.477	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158369	Organic Carbon	0.484	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2158377
Field Sample ID: G1SW0001

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	109	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.8	P	30 - 160
EPA 8321B	Diuron-d6	71.8	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	133	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	133	P	30 - 160
EPA 8321B	Ibuprofen-d3	88.0	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2158378
Field Sample ID: G1SW0110

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	125	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.0	P	30 - 160
EPA 8321B	Diuron-d6	66.3	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	150	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	150	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.6	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97621

Included Lab Sample IDs: 2158367, 2158368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97622

Included Lab Sample IDs: 2158371, 2158372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	99.3	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A97655

Included Lab Sample IDs: 2158367, 2158368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.4	100	P/P	90 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97709

Included Lab Sample IDs: 2158369, 2158370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	95.7	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A97718

Included Lab Sample IDs: 2158369, 2158370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.3	100	P/P	90 - 110
Organic Carbon	99.8	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A97739

Included Lab Sample IDs: 2158367, 2158368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A97739

Included Lab Sample IDs: 2158367, 2158368

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97758

Included Lab Sample IDs: 2158369, 2158370

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97758

Included Lab Sample IDs: 2158369, 2158370

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: A97771

Included Lab Sample IDs: 2158367, 2158368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	98.6	P/P	90 - 110
Sulfate	98.4	98.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97793

Included Lab Sample IDs: 2158370

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

Reference Method: EPA 8321B

Run ID: A97817

Included Lab Sample IDs: 2158377, 2158378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	81.6	96.3	P/P	60 - 160
Endothall	95.1	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A97819

Included Lab Sample IDs: 2158377, 2158378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	76.0	80.1	P/P	60 - 160
Glufosinate	96.6	109	P/P	60 - 160
Glyphosate	106	113	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97843

Included Lab Sample IDs: 2158369

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

Reference Method: EPA 8321B

Run ID: A97908

Included Lab Sample IDs: 2158377, 2158378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	113	109	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97912

Included Lab Sample IDs: 2158369, 2158370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.0	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97978

Included Lab Sample IDs: 2158377, 2158378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.0	97.2	P/P	50 - 150
Acetaminophen	101	97.4	P/P	60 - 160
Acetamiprid	106	98.4	P/P	50 - 150
Afidopyropen	89.0	99.0	P/P	50 - 150
Bentazon	119	116	P/P	50 - 160
Benzovindiflupyr	106	103	P/P	50 - 150
Carbamazepine	98.0	101	P/P	60 - 150
Clothianidin	109	93.8	P/P	60 - 150
Dinotefuran	110	103	P/P	50 - 150
Diuron	105	93.8	P/P	60 - 150
Fenuron	96.2	88.4	P/P	60 - 150
Fluridone	106	107	P/P	60 - 160
Hydrocodone	97.9	92.1	P/P	60 - 150
Ibuprofen	77.2	90.3	P/P	50 - 160
Imazapyr	114	109	P/P	50 - 150
Imidacloprid	102	101	P/P	60 - 150
Linuron	100	100	P/P	60 - 150
Mandestrobin	106	99.3	P/P	50 - 150
MCP	110	101	P/P	50 - 150
Naproxen	120	79.6	P/P	50 - 160
Primidone	108	102	P/P	60 - 150
Pyraclostrobin	104	94.0	P/P	60 - 150
Thiamethoxam	110	104	P/P	50 - 150
Tolfenpyrad	100	93.2	P/P	60 - 150
Triclopyr	120	112	P/P	50 - 150

* 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	
EPA 180.1 Rev. 2.0	Turbidity					0.966	
	Turbidity					2.18	
EPA 300.0 Rev. 2.1	Chloride	101	100	101		1.30	
	Sulfate	102	98.8	100		1.23	
EPA 350.1 Rev. 2.0	Ammonia-N	102	100	101			0.937
	Ammonia-N	101	100	101			0.285
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.0	86.6	103			9.33
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	99.5			0.501
EPA 365.1 Rev. 2.0	Total-P	103	106	107			0.385
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	99.6	100			0.203
EPA 8321B	2,4-D	133	131	142			8.66
	Acesulfame K	95.5	79.3	75.2			4.80
	Acetaminophen	88.1	92.5	114			20.6
	Acetamiprid	82.0	78.4	57.3			31.1
	Afidopyropen	71.5	87.0	80.3			8.04
	AMPA	98.1	83.7	77.7			7.50
	Bentazon	76.6					21.0
	Benzovindiflupyr	78.1	75.4	82.7			9.23
	Carbamazepine	80.5	66.9	70.5			5.32
	Clothianidin	70.9	92.3	104			12.3
	Dinotefuran	79.0	119	120			0.777
	Diuron	78.7	63.8	65.4			2.51
	Endothall	86.8	106	97.5			8.73
	Fenuron	91.3	77.4	71.1			8.43
	Fluridone	92.4	88.0	90.0			1.75
	Glufosinate	95.0	195	246			23.2
	Glyphosate	93.1	183	213			15.1
	Hydrocodone	82.6	78.4	95.1			19.2
	Ibuprofen	86.7	79.4	82.2			3.35
	Imazapyr	90.1					2.90
	Imidacloprid	89.6	157	138			12.8
	Linuron	73.5	75.0	71.5			4.70
	Mandestrobin	87.7	84.9	88.5			4.07
	MCPP	131	133	134			0.847
	Naproxen	83.9	97.3	117			18.7
	Primidone	79.7	85.7	88.2			2.92
	Pyraclostrobin	82.3	83.5	88.0			5.19
	Sucralose	113	108	101			5.72
	Thiamethoxam	86.9	108	121			11.2
	Tolfenpyrad	58.6	57.1	57.5			0.759
	Triclopyr	105	115	130			11.8
SM 2120 B-2011	Color (true)	99.7				1.58	
SM 2320 B-2011	Total Alkalinity	104				0.288	
SM 2540 C-2011	TDS					3.23	
SM 4500 F-C-2011	Fluoride	99.0	98.8	99.3			0.477
SM 5310 B-2011	Organic Carbon	98.4	101	100			0.484

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2158367, 2158368
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2158367, 2158368
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2158367, 2158368

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2158369, 2158370
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2158369, 2158370
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2158369, 2158370
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2158369, 2158370
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2158371, 2158372
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2158377, 2158378
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2158377, 2158378
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2158367, 2158368
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2158367, 2158368
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2158367, 2158368
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2158367, 2158368
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2158367, 2158368
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2158369, 2158370

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/18/2020			02/18/2020 16:35	Yen Ta	2158367, 2158368
EPA 300.0 Rev. 2.1	02/18/2020			02/26/2020 02:58	Lipi Saha	2158367
	02/18/2020			02/26/2020 03:10	Lipi Saha	2158368
EPA 350.1 Rev. 2.0	02/18/2020			02/24/2020 14:24	Ping Hua	2158370
	02/18/2020			02/26/2020 12:03	Ping Hua	2158369
EPA 351.2 Rev. 2.0	02/18/2020	02/20/2020 13:40	Sima Feizi	02/21/2020 09:30	Jhamieka S. Greenwood	2158369
	02/18/2020	02/20/2020 13:40	Sima Feizi	02/21/2020 09:32	Jhamieka S. Greenwood	2158370
EPA 353.2 Rev. 2.0	02/18/2020			02/24/2020 12:29	Beverly Y. Sanders	2158369
	02/18/2020			02/24/2020 12:39	Beverly Y. Sanders	2158370
EPA 365.1 Rev. 2.0	02/18/2020	02/26/2020 14:15	Lipi Saha	03/02/2020 11:28	Lipi Saha	2158369
	02/18/2020	02/26/2020 14:15	Lipi Saha	03/02/2020 11:29	Lipi Saha	2158370
EPA 365.1 Rev. 2.0 dissolved	02/18/2020			02/18/2020 15:47	Carlos Miranda	2158371
	02/18/2020			02/18/2020 15:48	Carlos Miranda	2158372
EPA 8321B	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/19/2020 22:05	Rebecca Ware	2158377
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/19/2020 22:19	Rebecca Ware	2158378
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 20:26	Rebecca Ware	2158377
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 20:36	Rebecca Ware	2158378
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/26/2020 21:34	Rebecca Ware	2158377
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/26/2020 21:46	Rebecca Ware	2158378
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 01:18	Juyoung Kim	2158377
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 01:53	Juyoung Kim	2158378
SM 2120 B-2011	02/18/2020			02/18/2020 17:12	Madeline Funaro	2158367
	02/18/2020			02/18/2020 17:13	Madeline Funaro	2158368
SM 2320 B-2011	02/18/2020			02/22/2020 18:50	Dale L. Simmons	2158367
	02/18/2020			02/22/2020 19:02	Dale L. Simmons	2158368
SM 2540 C-2011	02/18/2020			02/21/2020 15:21	Yijie Li	2158367, 2158368
SM 2540 D-2011	02/18/2020			02/21/2020 15:21	Yijie Li	2158367, 2158368
SM 4500 F-C-2011	02/18/2020			02/22/2020 18:50	Dale L. Simmons	2158367
	02/18/2020			02/22/2020 19:02	Dale L. Simmons	2158368
SM 5310 B-2011	02/18/2020			02/19/2020 17:14	Madeline Funaro	2158369
	02/18/2020			02/19/2020 22:22	Madeline Funaro	2158370