

Chemical Analysis Report

NE-DIST-2018-04-04-02

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

Event Description: **Santa Fe**
Request ID: **RQ-2018-04-02-18**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 24-APR-2018 11:44



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 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: SANTA FE RIVER @ HOLLINGSWORTH BLUFF Collection Date/Time: 04/03/2018 11:45

Field ID: 21030145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1980999	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P342789	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P343050	
		Sulfate	31	A	mg SO4/L	P343053	
	SM 2120 B	Color (true)	42		PCU	P342742	
	SM 2320 B-97	Total Alkalinity	152		mg CaCO3/L	P343413	
	SM 2540 C-97	TDS	236	A	mg/L	P343344	
	SM 2540 D-97	TSS	3	IA	mg/L	P343456	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P343417	
1981001	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P343314	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24		mg N/L	P342902	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.90		mg N/L	P343047	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P343039	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P343254	
1981003	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.073		mg P/L	P342801	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: COW CREEK AT SR 138

Collection Date/Time: 04/03/2018 12:15

Field ID: 21030086

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1981000	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P342789	
	EPA 300.0 Rev. 2.1	Chloride	6.1		mg Cl/L	P343050	
		Sulfate	0.20	U	mg SO4/L	P343053	
	SM 2120 B	Color (true)	310		PCU	P342742	
	SM 2320 B-97	Total Alkalinity	61		mg CaCO3/L	P343413	
	SM 2540 C-97	TDS	156		mg/L	P343344	
	SM 2540 D-97	TSS	3	I	mg/L	P343456	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P343417	
1981002	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P343314	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P342902	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P343048	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P343039	
	SM 5310 B-00	Organic Carbon	34		mg C/L	P343254	
1981004	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P342801	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: COW CREEK AT SR 138

Collection Date/Time: 04/03/2018 12:15

Field ID: 21030086

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: 21030086

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1981022	EPA 8321B	2,4-D	0.0020	U	ug/L	P342718	
		Sucralose**	0.11	U	ug/L	P342722	
		Bentazon	8.0E-04	U	ug/L	P342718	
		MCP	0.0020	U	ug/L	P342718	
		Triclopyr**	0.0040	U	ug/L	P342718	
		Imidacloprid	0.0020	U	ug/L	P342718	MS
		Diuron	0.0020	U	ug/L	P342718	
		Pyraclostrobin**	0.0020	U	ug/L	P342718	
		Primidone**	0.0040	U	ug/L	P342718	
		Linuron	0.0040	U	ug/L	P342718	
		Acetaminophen**	0.0080	UJ	ug/L	P342718	SUR
		Fenuron	0.016	U	ug/L	P342718	
		Imazapyr**	0.050		ug/L	P342718	
		Carbamazepine**	4.0E-04	U	ug/L	P342718	
		Fluridone**	8.0E-04	U	ug/L	P342718	
		Hydrocodone**	8.0E-04	U	ug/L	P342718	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Sample Location: CANNON CREEK AT RING CT

Collection Date/Time: 04/03/2018 10:40

Field ID: G1NE0911

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1981005	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P342789	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P343050	
		Sulfate	1.7		mg SO4/L	P343053	
	SM 2120 B	Color (true)	85	A	PCU	P342743	
	SM 2320 B-97	Total Alkalinity	58		mg CaCO3/L	P343413	
	SM 2540 C-97	TDS	126		mg/L	P343344	
	SM 2540 D-97	TSS	3	I	mg/L	P343456	
	SM 4500 F-C-97	Fluoride	0.067	I	mg F/L	P343417	
1981007	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P343314	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P342902	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P343048	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P343039	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P343254	
1981009	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P342801	
1981023	EPA 8321B	2,4-D	0.22		ug/L	P342718	
		Sucralose**	0.11	U	ug/L	P342722	
		Bentazon	8.0E-04	U	ug/L	P342718	
		MCP	0.0020	U	ug/L	P342718	
		Triclopyr**	0.0040	U	ug/L	P342718	
		Imidacloprid	0.034		ug/L	P342718	MS
		Diuron	0.0020	U	ug/L	P342718	
		Pyraclostrobin**	0.0020	U	ug/L	P342718	

Field ID: G1NE0911

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1981023	EPA 8321B	Primidone**	0.0040	U	ug/L	P342718	
		Linuron	0.0040	U	ug/L	P342718	
		Acetaminophen**	0.0080	U	ug/L	P342718	
		Fenuron	0.016	U	ug/L	P342718	
		Imazapyr**	0.21		ug/L	P342718	
		Carbamazepine**	4.0E-04	U	ug/L	P342718	
		Fluridone**	0.0026	I	ug/L	P342718	
		Hydrocodone**	8.0E-04	U	ug/L	P342718	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: CANNON CR @ CANNON CR RD/BUSINESS **Collection Date/Time: 04/03/2018 10:10**
PARK POINT CR 47

Field ID: 21030138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1981006	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P342789	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P343050	
		Sulfate	1.7		mg SO4/L	P343053	
	SM 2120 B	Color (true)	83		PCU	P342743	
	SM 2320 B-97	Total Alkalinity	58		mg CaCO3/L	P343413	
	SM 2540 C-97	TDS	128		mg/L	P343344	
	SM 2540 D-97	TSS	2	I	mg/L	P343456	
	SM 4500 F-C-97	Fluoride	0.068	I	mg F/L	P343417	
1981008	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P343314	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P342902	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P343048	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P343039	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P343254	
1981010	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P342801	
1981024	EPA 8321B	2,4-D	0.38		ug/L	P342718	
		Sucralose**	0.11	U	ug/L	P342722	
		Bentazon	8.0E-04	U	ug/L	P342718	
		MCP	0.0020	U	ug/L	P342718	
		Triclopyr**	0.0040	U	ug/L	P342718	
		Imidacloprid	0.037		ug/L	P342718	MS
		Diuron	0.0020	U	ug/L	P342718	
		Pyraclostrobin**	0.0020	U	ug/L	P342718	
		Primidone**	0.0040	U	ug/L	P342718	
		Linuron	0.0040	U	ug/L	P342718	
		Acetaminophen**	0.0080	U	ug/L	P342718	
		Fenuron	0.016	U	ug/L	P342718	
		Imazapyr**	0.20		ug/L	P342718	
		Carbamazepine**	4.0E-04	U	ug/L	P342718	

Field ID: 21030138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1981024	EPA 8321B	Fluridone**	0.0026	I	ug/L	P342718	
		Hydrocodone**	8.0E-04	U	ug/L	P342718	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P342789

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P343050

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P343053

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P343314

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P342902

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P343047

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P343048

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P343039

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343039

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342801

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

Reference Method: EPA 8321B
Batch ID: P342718

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P342722

Component	Result	Code	Units
Sucralose	0.11	U	ug/L

Reference Method: SM 2120 B
Batch ID: P342742

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P342743

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P343413

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P343344

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P343456

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P343417

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P343254

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: P343050

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343314

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342902

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.3		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343048

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343039

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342801

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

Reference Method: EPA 8321B
Batch ID: P342718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	79.4		P	40 - 150
Acetaminophen	112		P	30 - 150
Bentazon	75.4		P	30 - 150
Carbamazepine	85.3		P	40 - 150
Diuron	66.7		P	40 - 150
Fenuron	120		P	40 - 150
Fluridone	60.5		P	40 - 150
Hydrocodone	125		P	40 - 150
Imazapyr	76.4		P	40 - 150
Imidacloprid	111		P	40 - 160
Linuron	75.8		P	40 - 150
MCPP	62.7		P	40 - 150
Primidone	124		P	40 - 150
Pyraclostrobin	77.1		P	40 - 150
Triclopyr	62.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	121		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P343413

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P343417

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.9		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343254

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980999	Chloride	96.3		P	90 - 110
1981261	Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1981261	Sulfate	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1981001	Ammonia-N	98.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1981001	Kjeldahl Nitrogen	94.4	96.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980930	NO2NO3-N	104	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343048

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1981002	NO2NO3-N	101	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980945	Total-P	106	98.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342801

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980882	O-Phosphate-P	91.7	92.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P342718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980630	2,4-D	109	105	P/P	40 - 150
1980630	Acetaminophen	133	139	P/P	30 - 150
1980630	Bentazon	47.9	43.1	P/P	30 - 150
1980630	Carbamazepine	90.1	94.4	P/P	40 - 150
1980630	Diuron	72.0	75.5	P/P	40 - 150
1980630	Fenuron	98.4	105	P/P	40 - 150
1980630	Fluridone	59.2	62.4	P/P	40 - 150
1980630	Hydrocodone	137	142	P/P	40 - 150
1980630	Imazapyr	77.5	73.9	P/P	40 - 150
1980630	Imidacloprid	207	205	F/F	40 - 160
1980630	Linuron	88.5	89.9	P/P	40 - 150
1980630	MCP	84.8	81.2	P/P	40 - 150
1980630	Primidone	126	121	P/P	40 - 150
1980630	Pyraclostrobin	78.6	84.1	P/P	40 - 150
1980630	Triclopyr	89.7	85.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980974	Sucralose	64.8	66.5	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P343417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980944	Fluoride	96.8	98.9	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1980925	Organic Carbon	100	102	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980941	Turbidity	4.90	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980999	Chloride	0.785	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P343053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980999	Sulfate	0.942	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P343314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1981001	Ammonia-N	2.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1981001	Kjeldahl Nitrogen	1.60	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980930	NO2NO3-N	0.740	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P343048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1981002	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P343039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980945	Total-P	5.91	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980882	O-Phosphate-P	1.08	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P342718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980630	2,4-D	3.48	Spike	P	0 - 30
1980630	Acetaminophen	4.43	Spike	P	0 - 30
1980630	Bentazon	7.99	Spike	P	0 - 30
1980630	Carbamazepine	4.62	Spike	P	0 - 30
1980630	Diuron	4.75	Spike	P	0 - 30
1980630	Fenuron	6.53	Spike	P	0 - 30
1980630	Fluridone	5.10	Spike	P	0 - 30
1980630	Hydrocodone	3.55	Spike	P	0 - 30
1980630	Imazapyr	3.03	Spike	P	0 - 30
1980630	Imidacloprid	0.795	Spike	P	0 - 30
1980630	Linuron	1.55	Spike	P	0 - 30
1980630	MCP	4.32	Spike	P	0 - 30
1980630	Primidone	3.73	Spike	P	0 - 30
1980630	Pyraclostrobin	6.72	Spike	P	0 - 30
1980630	Triclopyr	5.26	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P342722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980974	Sucralose	2.61	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P342742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980922	Color (true)	0.765	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P342743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1981005	Color (true)	4.77	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P343413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980944	Total Alkalinity	0.799	Sample	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P343344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980999	TDS	3.81	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P343417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980944	Fluoride	1.47	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P343254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1980925	Organic Carbon	1.32	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 1981022
Field Sample ID: 21030086

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	174	F	30 - 160
EPA 8321B	Carbamazepine-d10	121	P	30 - 160
EPA 8321B	Diuron-d6	91.3	P	30 - 160
EPA 8321B	Primidone-d5	123	P	30 - 160
EPA 8321B	Sucralose-d6	48.6	P	40 - 160

Lab Sample ID: 1981023
Field Sample ID: G1NE0911

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	157	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	93.1	P	30 - 160
EPA 8321B	Primidone-d5	137	P	30 - 160
EPA 8321B	Sucralose-d6	59.1	P	40 - 160

Lab Sample ID: 1981024
Field Sample ID: 21030138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	153	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1981024
Field Sample ID: 21030138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	109	P	30 - 160
EPA 8321B	Diuron-d6	96.3	P	30 - 160
EPA 8321B	Primidone-d5	131	P	30 - 160
EPA 8321B	Sucralose-d6	56.2	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A83001
Included Lab Sample IDs: 1980999, 1981000, 1981005, 1981006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.2	P/P	90 - 110
Sulfate	98.7	98.6	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A83033
Included Lab Sample IDs: 1980999, 1981000, 1981005, 1981006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	97.5	P/P	85 - 115
Color (true)	99.2	101	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A83045
Included Lab Sample IDs: 1980999, 1981000, 1981005, 1981006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A83051
Included Lab Sample IDs: 1981003, 1981004, 1981009, 1981010

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	99.4	P/P	90 - 110
O-Phosphate-P	99.3	98.9	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A83110
Included Lab Sample IDs: 1981022, 1981023, 1981024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.4	90.9	P/P	50 - 150
Acetaminophen	119	111	P/P	60 - 150
Bentazon	92.5	93.1	P/P	50 - 150
Carbamazepine	109	111	P/P	60 - 150
Diuron	112	123	P/P	60 - 150
Fenuron	108	109	P/P	60 - 150
Fluridone	115	119	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A83110

Included Lab Sample IDs: 1981022, 1981023, 1981024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	121	120	P/P	60 - 150
Imazapyr	90.3	84.4	P/P	50 - 150
Imidacloprid	116	112	P/P	60 - 150
Linuron	123	118	P/P	60 - 150
MCPP	101	95.3	P/P	50 - 150
Primidone	117	114	P/P	60 - 150
Pyraclostrobin	118	117	P/P	60 - 150
Triclopyr	102	98.4	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A83122

Included Lab Sample IDs: 1981001, 1981002, 1981007, 1981008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A83128

Included Lab Sample IDs: 1981001, 1981002, 1981007, 1981008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.4	96.8	P/P	90 - 110
Kjeldahl Nitrogen	99.8	91.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83143

Included Lab Sample IDs: 1981001, 1981007, 1981008

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83157

Included Lab Sample IDs: 1981002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A83183

Included Lab Sample IDs: 1981001, 1981002, 1981007, 1981008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A83192

Included Lab Sample IDs: 1981022, 1981023, 1981024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	106	110	P/P	60 - 130
Sucralose	96.0	106	P/P	60 - 130

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83204

Included Lab Sample IDs: 1981001, 1981002, 1981007, 1981008

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	103	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A83241

Included Lab Sample IDs: 1980999, 1981000, 1981005, 1981006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.7	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A83241

Included Lab Sample IDs: 1980999, 1981000, 1981005, 1981006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				4.90	
EPA 300.0 Rev. 2.1	Chloride	98.7	96.3 96.8		0.785	
	Sulfate	98.4	98.0		0.942	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	98.6 101			2.60
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	94.3	94.4 96.3			1.60
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104 106			0.740
	NO2NO3-N	104	101 101			0.0
EPA 365.1 Rev. 2.0	Total-P	102	106 98.7			5.91
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	91.7 92.7			1.08
EPA 8321B	2,4-D	79.4	109 105			3.48
	Acetaminophen	112	133 139			4.43
	Bentazon	75.4	47.9 43.1			7.99
	Carbamazepine	85.3	90.1 94.4			4.62
	Diuron	66.7	72.0 75.5			4.75
	Fenuron	120	98.4 105			6.53
	Fluridone	60.5	59.2 62.4			5.10

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Hydrocodone	125	137	142		3.55
	Imazapyr	76.4	77.5	73.9		3.03
	Imidacloprid	111	207	205		0.795
	Linuron	75.8	88.5	89.9		1.55
	MCPD	62.7	84.8	81.2		4.32
	Primidone	124	126	121		3.73
	Pyraclostrobin	77.1	78.6	84.1		6.72
	Sucralose	121	64.8	66.5		2.61
	Triclopyr	62.6	89.7	85.1		5.26
SM 2120 B	Color (true)				0.765	
	Color (true)				4.77	
SM 2320 B-97	Total Alkalinity	101			0.799	
SM 2540 C-97	TDS				3.81	
SM 4500 F-C-97	Fluoride	96.9	96.8	98.9		1.47
SM 5310 B-00	Organic Carbon	99.3	100	102		1.32

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1980999, 1981000, 1981005, 1981006
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1980999, 1981000, 1981005, 1981006
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1980999, 1981000, 1981005, 1981006
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1981001, 1981002, 1981007, 1981008
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1981001, 1981002, 1981007, 1981008
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1981001, 1981002, 1981007, 1981008
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1981001, 1981002, 1981007, 1981008
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1981003, 1981004, 1981009, 1981010
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1981022, 1981023, 1981024
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1981022, 1981023, 1981024
SM 2120 B / E31780	True Color measured at 450 nm	1980999, 1981000, 1981005, 1981006
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1980999, 1981000, 1981005, 1981006
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1980999, 1981000, 1981005, 1981006
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1980999, 1981000, 1981005, 1981006
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1980999, 1981000, 1981005, 1981006
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1981001, 1981002, 1981007, 1981008

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	04/04/2018			04/04/2018 17:53	William L. Brown IV	1980999, 1981000, 1981005, 1981006
EPA 300.0 Rev. 2.1	04/04/2018			04/06/2018 14:08	Lipi Saha	1980999
	04/04/2018			04/06/2018 15:08	Lipi Saha	1981000
	04/04/2018			04/06/2018 15:20	Lipi Saha	1981005
	04/04/2018			04/06/2018 15:32	Lipi Saha	1981006
EPA 350.1 Rev. 2.0	04/04/2018			04/12/2018 13:28	Ping Hua	1981001
	04/04/2018			04/12/2018 13:40	Ping Hua	1981002
	04/04/2018			04/12/2018 13:42	Ping Hua	1981007
	04/04/2018			04/12/2018 13:43	Ping Hua	1981008
EPA 351.2 Rev. 2.0	04/04/2018	04/06/2018 10:50	Adrian Shelby	04/09/2018 14:26	Joseph Suarez	1981001
	04/04/2018	04/06/2018 10:50	Adrian Shelby	04/09/2018 14:31	Joseph Suarez	1981002
	04/04/2018	04/06/2018 10:50	Adrian Shelby	04/09/2018 14:35	Joseph Suarez	1981007
	04/04/2018	04/06/2018 10:50	Adrian Shelby	04/09/2018 14:37	Joseph Suarez	1981008
EPA 353.2 Rev. 2.0	04/04/2018			04/09/2018 13:24	Lauren Bottorf	1981002
	04/04/2018			04/09/2018 13:37	Lauren Bottorf	1981007
	04/04/2018			04/09/2018 13:38	Lauren Bottorf	1981008
	04/04/2018			04/09/2018 14:07	Lauren Bottorf	1981001
EPA 365.1 Rev. 2.0	04/04/2018	04/09/2018 13:30	Sima Feizi	04/10/2018 11:17	Beverly Y. Sanders	1981001
	04/04/2018	04/09/2018 13:30	Sima Feizi	04/10/2018 11:22	Beverly Y. Sanders	1981007
	04/04/2018	04/09/2018 13:30	Sima Feizi	04/10/2018 11:23	Beverly Y. Sanders	1981008
	04/04/2018	04/09/2018 13:30	Sima Feizi	04/11/2018 10:05	Beverly Y. Sanders	1981002
EPA 365.1 Rev. 2.0 dissolved	04/04/2018			04/04/2018 16:52	Megan Treadwell	1981003
	04/04/2018			04/04/2018 16:53	Megan Treadwell	1981004
	04/04/2018			04/04/2018 16:58	Megan Treadwell	1981009
	04/04/2018			04/04/2018 16:59	Megan Treadwell	1981010
EPA 8321B	04/04/2018	04/05/2018 13:00	Hoor Shaik	04/06/2018 16:45	Julie Michelle Frank	1981022
	04/04/2018	04/05/2018 13:00	Hoor Shaik	04/06/2018 17:19	Julie Michelle Frank	1981023
	04/04/2018	04/05/2018 13:00	Hoor Shaik	04/06/2018 17:54	Julie Michelle Frank	1981024
	04/04/2018	04/05/2018 13:00	Hoor Shaik	04/07/2018 08:19	Julie Michelle Frank	1981022
	04/04/2018	04/05/2018 13:00	Hoor Shaik	04/07/2018 08:53	Julie Michelle Frank	1981023
	04/04/2018	04/05/2018 13:00	Hoor Shaik	04/07/2018 09:28	Julie Michelle Frank	1981024
	04/04/2018	04/05/2018 15:30	Julie Michelle Frank	04/11/2018 02:00	Julie Michelle Frank	1981022
	04/04/2018	04/05/2018 15:30	Julie Michelle Frank	04/11/2018 02:31	Julie Michelle Frank	1981023
	04/04/2018	04/05/2018 15:30	Julie Michelle Frank	04/11/2018 02:47	Julie Michelle Frank	1981024
SM 2120 B	04/04/2018			04/04/2018 15:46	DeAsia Armster	1980999
	04/04/2018			04/04/2018 15:51	DeAsia Armster	1981005, 1981006
	04/04/2018			04/04/2018 15:53	DeAsia Armster	1981000
SM 2320 B-97	04/04/2018			04/14/2018 08:26	Dale L. Simmons	1980999
	04/04/2018			04/14/2018 08:37	Dale L. Simmons	1981000
	04/04/2018			04/14/2018 08:47	Dale L. Simmons	1981005

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	04/04/2018			04/14/2018 08:57	Dale L. Simmons	1981006
SM 2540 C-97	04/04/2018			04/06/2018 16:01	Yijie Li	1980999, 1981000, 1981005, 1981006
SM 2540 D-97	04/04/2018			04/06/2018 16:01	Yijie Li	1980999, 1981000, 1981005, 1981006
SM 4500 F-C-97	04/04/2018			04/14/2018 08:26	Dale L. Simmons	1980999
	04/04/2018			04/14/2018 08:37	Dale L. Simmons	1981000
	04/04/2018			04/14/2018 08:47	Dale L. Simmons	1981005
	04/04/2018			04/14/2018 08:57	Dale L. Simmons	1981006
	04/04/2018			04/12/2018 06:33	Megan Treadwell	1981001
SM 5310 B-00	04/04/2018			04/12/2018 06:45	Megan Treadwell	1981002
	04/04/2018			04/12/2018 06:58	Megan Treadwell	1981007
	04/04/2018			04/12/2018 07:10	Megan Treadwell	1981008