

Chemical Analysis Report

CEN-DIST-2019-07-31-01

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

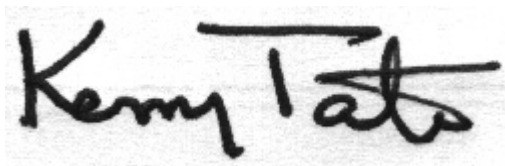
Event Description: **Rose / Spruce / Strickland / UnBranch / Groover**
Request ID: **RQ-2019-03-18-32**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Michael Linger

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

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

Date Certified: 22-AUG-2019 15:06

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 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: Metals and Nutrients.

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: Strickland Bay @ 525 M East (Downstream) of RR Crossing **Collection Date/Time: 07/30/2019 09:45**

Field ID: G5CE0082

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2107258	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P368244	
	EPA 300.0	Bromide	29		mg Br/L	P368407	
	SM 2320 B-97	Total Alkalinity	85		mg CaCO3/L	P368720	
	SM 2540 D-97	TSS	8	I	mg/L	P368481	
	SM 4500 F-C-97	Fluoride	0.51		mg F/L	P368723	
2107262	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P368786	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P368366	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P368298	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P368269	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P368350	
2107266	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.063		mg P/L	P368253	
2107285	EPA 200.7 Rev. 4.4	Iron	500		ug/L	P368222	
		Manganese	16		ug/L	P368222	
		Zinc	15	U	ug/L	P368222	
	EPA 200.8 Rev. 5.4	Aluminum	224		ug/L	P368222	
		Antimony	0.20	U	ug/L	P368222	
		Arsenic	2.04		ug/L	P368222	
		Cadmium	0.080	U	ug/L	P368222	
		Chromium	4.0	U	ug/L	P368222	
		Copper	1.6	U	ug/L	P368222	
		Lead	0.80	U	ug/L	P368222	
		Nickel	2.0	U	ug/L	P368222	
		Selenium	2.0	U	ug/L	P368222	
		Silver	0.040	U	ug/L	P368222	
		Thallium	0.40	U	ug/L	P368222	

Ref. Method and Comment:

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

Sample Location: Strickland Bay @ 100 M East (Downstream) of RR Crossing **Collection Date/Time: 07/30/2019 09:56**

Field ID: G5CE0081

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2107259	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P368244	
	EPA 300.0	Bromide	30		mg Br/L	P368407	
	SM 2320 B-97	Total Alkalinity	89		mg CaCO3/L	P368720	
	SM 2540 D-97	TSS	10	I	mg/L	P368481	
	SM 4500 F-C-97	Fluoride	0.52		mg F/L	P368723	
2107263	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P368786	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P368374	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P368298	
	EPA 365.1 Rev. 2.0	Total-P	0.093		mg P/L	P368269	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P368350	
2107267	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.061		mg P/L	P368253	
2107286	EPA 200.7 Rev. 4.4	Iron	510		ug/L	P368222	
		Manganese	17		ug/L	P368222	
		Zinc	15	U	ug/L	P368222	
	EPA 200.8 Rev. 5.4	Aluminum	272		ug/L	P368222	
		Antimony	0.20	U	ug/L	P368222	
		Arsenic	2.24		ug/L	P368222	
		Cadmium	0.080	U	ug/L	P368222	
		Chromium	4.0	U	ug/L	P368222	
		Copper	1.6	U	ug/L	P368222	
		Lead	0.80	U	ug/L	P368222	
		Nickel	2.0	U	ug/L	P368222	
		Selenium	2.0	U	ug/L	P368222	
		Silver	0.040	U	ug/L	P368222	
		Thallium	0.40	U	ug/L	P368222	

Ref. Method and Comment:

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

Sample Location: Spruce Creek @ 500m Upstream of RR Bridge Collection Date/Time: 07/30/2019 10:07

Field ID: G5CE0091

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2107260	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P368244	
	EPA 300.0	Bromide	28		mg Br/L	P368407	
	SM 2320 B-97	Total Alkalinity	85		mg CaCO3/L	P368720	
	SM 2540 D-97	TSS	6	I	mg/L	P368481	
	SM 4500 F-C-97	Fluoride	0.49	I	mg F/L	P368723	
2107264	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P368786	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P368374	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P368298	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P368269	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P368350	
2107268	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.063		mg P/L	P368253	
2107287	EPA 200.7 Rev. 4.4	Iron	590		ug/L	P368222	
		Manganese	19		ug/L	P368222	
		Zinc	15	U	ug/L	P368222	
	EPA 200.8 Rev. 5.4	Aluminum	282		ug/L	P368222	
		Antimony	0.20	U	ug/L	P368222	
		Arsenic	2.19		ug/L	P368222	
		Cadmium	0.080	U	ug/L	P368222	
		Chromium	4.0	U	ug/L	P368222	
		Copper	1.6	U	ug/L	P368222	
		Lead	0.80	U	ug/L	P368222	
		Nickel	2.0	U	ug/L	P368222	
		Selenium	2.0	U	ug/L	P368222	
		Silver	0.040	U	ug/L	P368222	
		Thallium	0.40	U	ug/L	P368222	

Ref. Method and Comment:

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

Sample Location: Spruce Creek @ 0.68 Miles Upstream of RR Bridge

Collection Date/Time: 07/30/2019 10:15

Field ID: G5CE0099

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2107261	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P368244	
	EPA 300.0	Bromide	22		mg Br/L	P368407	
	SM 2320 B-97	Total Alkalinity	77		mg CaCO3/L	P368719	
	SM 2540 D-97	TSS	11		mg/L	P368481	
	SM 4500 F-C-97	Fluoride	0.41		mg F/L	P368722	
2107265	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P368786	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P368374	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P368298	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P368269	
	SM 5310 B-00	Organic Carbon	24		mg C/L	P368350	
2107269	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.070		mg P/L	P368253	
2107288	EPA 200.7 Rev. 4.4	Iron	680		ug/L	P368222	
		Manganese	18		ug/L	P368222	
		Zinc	15	U	ug/L	P368222	
	EPA 200.8 Rev. 5.4	Aluminum	254		ug/L	P368222	
		Antimony	0.20	U	ug/L	P368222	
		Arsenic	1.86		ug/L	P368222	
		Cadmium	0.080	U	ug/L	P368222	
		Chromium	4.0	U	ug/L	P368222	
		Copper	1.6	U	ug/L	P368222	
		Lead	0.80	U	ug/L	P368222	
		Nickel	2.0	U	ug/L	P368222	
		Selenium	2.0	U	ug/L	P368222	
		Silver	0.040	U	ug/L	P368222	
		Thallium	0.40	U	ug/L	P368222	

Ref. Method and Comment:

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

Sample Location: Rose Bay @ 200m E of Boat Ramp

Collection Date/Time: 07/30/2019 10:55

Field ID: G5CE0098

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2107252	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P368244	
	EPA 300.0	Bromide	59		mg Br/L	P368407	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P368720	
	SM 2540 D-97	TSS	7	I	mg/L	P368481	
	SM 4500 F-C-97	Fluoride	0.98		mg F/L	P368723	
2107254	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P368786	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P368366	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P368298	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P368269	
	SM 5310 B-00	Organic Carbon	6.7		mg C/L	P368350	
2107256	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P368253	

Ref. Method and Comment:

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

Sample Location: Rose Bay @ 125m NE of Boat Ramp

Collection Date/Time: 07/30/2019 11:02

Field ID: G5CE0073

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2107253	EPA 180.1 Rev. 2.0	Turbidity	8.9	A	NTU	P368244	
	EPA 300.0	Bromide	59		mg Br/L	P368407	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P368720	
	SM 2540 D-97	TSS	15		mg/L	P368481	
	SM 4500 F-C-97	Fluoride	0.99		mg F/L	P368723	
2107255	EPA 350.1 Rev. 2.0	Ammonia-N	0.006	U	mg N/L	P368786	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P368366	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004		mg N/L	P368298	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P368269	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P368350	
2107257	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P368253	

Ref. Method and Comment:

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: P368244

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368222

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368222

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0
Batch ID: P368407

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368786

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368366

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368374

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: P368298

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P368269

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P368253

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

Reference Method: SM 2320 B-97
Batch ID: P368719

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

Reference Method: SM 2320 B-97
Batch ID: P368720

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

Reference Method: SM 2540 D-97
Batch ID: P368481

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P368722

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P368723

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P368350

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	104		P	85 - 115
Manganese	100		P	85 - 115
Zinc	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	99.5		P	85 - 115
Arsenic	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	97.5		P	85 - 115
Copper	97.7		P	85 - 115
Lead	102		P	85 - 115
Nickel	99.6		P	85 - 115
Selenium	96.0		P	85 - 115
Silver	103		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P368407

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368786

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: P368366

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368374

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P368298

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P368269

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: P368253

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

Reference Method: SM 2320 B-97
Batch ID: P368719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P368720

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

Reference Method: SM 4500 F-C-97
Batch ID: P368722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.6		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P368723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P368350

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105061	Iron	99.1		P	70 - 130
2105061	Manganese	93.9		P	70 - 130
2105061	Zinc	101		P	70 - 130
2106936	Iron	98.3	97.6	P/P	70 - 130
2106936	Manganese	93.9	94.0	P/P	70 - 130
2106936	Zinc	99.4	100	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105061	Aluminum	113		P	70 - 130
2105061	Antimony	107		P	70 - 130
2105061	Arsenic	117		P	70 - 130
2105061	Cadmium	102		P	70 - 130
2105061	Chromium	91.0		P	70 - 130
2105061	Copper	71.5		P	70 - 130
2105061	Lead	110		P	70 - 130
2105061	Nickel	107		P	70 - 130
2105061	Selenium	101		P	70 - 130
2105061	Silver	101		P	70 - 130
2105061	Thallium	109		P	70 - 130
2106936	Aluminum	98.7	92.0	P/P	70 - 130
2106936	Antimony	101	94.5	P/P	70 - 130
2106936	Arsenic	108	102	P/P	70 - 130
2106936	Cadmium	99.2	93.5	P/P	70 - 130
2106936	Chromium	91.1	86.3	P/P	70 - 130
2106936	Copper	98.7	94.3	P/P	70 - 130
2106936	Lead	101	94.1	P/P	70 - 130
2106936	Nickel	98.1	94.1	P/P	70 - 130
2106936	Selenium	103	101	P/P	80 - 120
2106936	Silver	97.4	93.3	P/P	70 - 130
2106936	Thallium	100	94.3	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P368407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2106858	Bromide	99.5	101	P/P	90 - 110
2106859	Bromide	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107427	Ammonia-N	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368366

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2106844	Kjeldahl Nitrogen	110	108	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368374

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107263	Kjeldahl Nitrogen	104	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P368298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107147	NO2NO3-N	99.7	98.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P368269

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107428	Total-P	93.5	91.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P368253

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107434	O-Phosphate-P	95.8	97.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P368722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105216	Fluoride	97.6	97.6	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P368723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107517	Fluoride	92.6	92.6	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P368350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2107255	Organic Carbon	98.2	97.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P368244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107253	Turbidity	2.71	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106936	Iron	0.714	Spike	P	0 - 20
2106936	Manganese	0.122	Spike	P	0 - 20
2106936	Zinc	0.644	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106936	Aluminum	7.02	Spike	P	0 - 20
2106936	Antimony	6.76	Spike	P	0 - 20
2106936	Arsenic	5.47	Spike	P	0 - 20
2106936	Cadmium	5.91	Spike	P	0 - 20
2106936	Chromium	5.31	Spike	P	0 - 20
2106936	Copper	4.59	Spike	P	0 - 20
2106936	Lead	6.75	Spike	P	0 - 20
2106936	Nickel	4.18	Spike	P	0 - 20
2106936	Selenium	1.97	Spike	P	0 - 20
2106936	Silver	4.29	Spike	P	0 - 20
2106936	Thallium	5.85	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P368407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106858	Bromide	1.21	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107427	Ammonia-N	0.539	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368366

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106844	Kjeldahl Nitrogen	1.44	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P368374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107263	Kjeldahl Nitrogen	3.54	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P368298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107147	NO2NO3-N	0.922	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P368269

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107428	Total-P	2.65	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P368253

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107434	O-Phosphate-P	1.45	Spike	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P368719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2106700	Total Alkalinity	0.294	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
 Batch ID: P368720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107517	Total Alkalinity	0.197	Sample	P	0 - 2.8

Reference Method: SM 4500 F-C-97
 Batch ID: P368722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105216	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
 Batch ID: P368723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107517	Fluoride	0.0	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P368350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2107255	Organic Carbon	0.614	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 Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A93173

Included Lab Sample IDs: 2107252, 2107253, 2107258, 2107259, 2107260, 2107261

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A93174

Included Lab Sample IDs: 2107256, 2107257, 2107266, 2107267, 2107268, 2107269

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A93194

Included Lab Sample IDs: 2107254, 2107255, 2107262, 2107263, 2107264, 2107265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	99.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A93211

Included Lab Sample IDs: 2107285, 2107286, 2107287, 2107288

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	99.8	99.1	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Zinc	99.2	99.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A93216

Included Lab Sample IDs: 2107254, 2107255, 2107262, 2107263, 2107264, 2107265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.5	P/P	90 - 110
Organic Carbon	99.4	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93224

Included Lab Sample IDs: 2107265

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93233

Included Lab Sample IDs: 2107254, 2107255, 2107262, 2107263, 2107264

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0

Run ID: A93239

Included Lab Sample IDs: 2107252, 2107253, 2107258, 2107259, 2107260, 2107261

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	103	104	P/P	90 - 110
Bromide	104	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93275

Included Lab Sample IDs: 2107254, 2107255, 2107262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93288

Included Lab Sample IDs: 2107263, 2107264, 2107265

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	104	P/P	90 - 110
Kjeldahl Nitrogen	104	106	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A93367

Included Lab Sample IDs: 2107252, 2107253, 2107258, 2107259, 2107260, 2107261

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110
Total Alkalinity	105	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A93367

Included Lab Sample IDs: 2107252, 2107253, 2107258, 2107259, 2107260, 2107261

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.6	P/P	90 - 110
Fluoride	98.1	99.5	P/P	90 - 110
Fluoride	99.1	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A93398

Included Lab Sample IDs: 2107254, 2107255, 2107262, 2107263, 2107264, 2107265

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: EPA 200.8 Rev. 5.4

Run ID: A93596

Included Lab Sample IDs: 2107285, 2107286, 2107287, 2107288

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	103	P/P	90 - 110
Antimony	97.7	97.3	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A93596

Included Lab Sample IDs: 2107285, 2107286, 2107287, 2107288

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	100	99.2	P/P	90 - 110
Chromium	94.5	94.3	P/P	90 - 110
Copper	100	99.9	P/P	90 - 110
Lead	101	101	P/P	90 - 110
Nickel	100	99.0	P/P	90 - 110
Silver	105	104	P/P	90 - 110
Thallium	96.2	96.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A93660

Included Lab Sample IDs: 2107285, 2107286, 2107287, 2107288

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	97.3	98.1	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			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					2.71	
EPA 200.7 Rev. 4.4	Iron	104	99.1	98.3	97.6		0.714
	Manganese	100	93.9	93.9	94.0		0.122
	Zinc	98.4	101	99.4	100		0.644
EPA 200.8 Rev. 5.4	Aluminum	100	113	98.7	92.0		7.02
	Antimony	99.5	107	101	94.5		6.76
	Arsenic	101	117	108	102		5.47
	Cadmium	101	102	99.2	93.5		5.91
	Chromium	97.5	91.0	91.1	86.3		5.31
	Copper	97.7	71.5	98.7	94.3		4.59
	Lead	102	110	101	94.1		6.75
	Nickel	99.6	107	98.1	94.1		4.18
	Selenium	96.0	101	103	101		1.97
	Silver	103	101	97.4	93.3		4.29
	Thallium	102	109	100	94.3		5.85
EPA 300.0	Bromide	100	99.5	101	100		1.21
EPA 350.1 Rev. 2.0	Ammonia-N	101	102	101			0.539
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	110	108			1.44
	Kjeldahl Nitrogen	106	104	109			3.54
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	99.7	98.7			0.922
EPA 365.1 Rev. 2.0	Total-P	103	93.5	91.1			2.65
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	95.8	97.2			1.45
SM 2320 B-97	Total Alkalinity	105				0.294	
	Total Alkalinity	106				0.197	
SM 4500 F-C-97	Fluoride	95.6	97.6	97.6			0.0
	Fluoride	97.9	92.6	92.6			0.0
SM 5310 B-00	Organic Carbon	102	98.2	97.5			0.614

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2107285, 2107286, 2107287, 2107288
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2107285, 2107286, 2107287, 2107288
EPA 300.0 / E31780	Bromide in aqueous matrices	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2107254, 2107255, 2107262, 2107263, 2107264, 2107265
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2107254, 2107255, 2107262, 2107263, 2107264, 2107265
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2107254, 2107255, 2107262, 2107263, 2107264, 2107265
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2107254, 2107255, 2107262, 2107263, 2107264, 2107265
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2107256, 2107257, 2107266, 2107267, 2107268, 2107269
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2107252, 2107253, 2107258, 2107259, 2107260, 2107261

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2107254, 2107255, 2107262, 2107263, 2107264, 2107265

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	07/31/2019			07/31/2019 16:21	Samantha Davila	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
EPA 200.7 Rev. 4.4	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/01/2019 22:10	Betina Topolski	2107285
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/01/2019 22:17	Betina Topolski	2107286
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/01/2019 22:25	Betina Topolski	2107287
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/01/2019 22:32	Betina Topolski	2107288
EPA 200.8 Rev. 5.4	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/16/2019 21:31	Martin Acosta	2107285
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/16/2019 21:41	Martin Acosta	2107286
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/16/2019 21:50	Martin Acosta	2107287
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/16/2019 22:00	Martin Acosta	2107288
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/17/2019 03:43	Martin Acosta	2107285
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/17/2019 03:53	Martin Acosta	2107286
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/17/2019 04:03	Martin Acosta	2107287
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/17/2019 04:12	Martin Acosta	2107288
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/21/2019 01:17	Martin Acosta	2107285
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/21/2019 01:27	Martin Acosta	2107286
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/21/2019 01:36	Martin Acosta	2107287
	07/31/2019	07/31/2019 15:35	Elliott D. Healy	08/21/2019 01:46	Martin Acosta	2107288
EPA 300.0	07/31/2019			08/02/2019 09:00	Jhamieka S. Greenwood	2107252
	07/31/2019			08/02/2019 09:17	Jhamieka S. Greenwood	2107253
	07/31/2019			08/02/2019 09:34	Jhamieka S. Greenwood	2107258
	07/31/2019			08/02/2019 09:51	Jhamieka S. Greenwood	2107259
	07/31/2019			08/02/2019 10:08	Jhamieka S. Greenwood	2107260
	07/31/2019			08/02/2019 10:59	Jhamieka S. Greenwood	2107261
EPA 350.1 Rev. 2.0	07/31/2019			08/09/2019 12:45	Ping Hua	2107254
	07/31/2019			08/09/2019 12:53	Ping Hua	2107255
	07/31/2019			08/09/2019 12:54	Ping Hua	2107262
	07/31/2019			08/09/2019 12:56	Ping Hua	2107263
	07/31/2019			08/09/2019 12:57	Ping Hua	2107264
	07/31/2019			08/09/2019 12:59	Ping Hua	2107265
EPA 351.2 Rev. 2.0	07/31/2019	08/02/2019 12:30	Adrian Shelby	08/05/2019 14:24	Joseph Suarez	2107254
	07/31/2019	08/02/2019 12:30	Adrian Shelby	08/05/2019 14:26	Joseph Suarez	2107255
	07/31/2019	08/02/2019 12:30	Adrian Shelby	08/05/2019 14:27	Joseph Suarez	2107262
	07/31/2019	08/02/2019 12:30	Adrian Shelby	08/06/2019 10:30	Joseph Suarez	2107263
	07/31/2019	08/02/2019 12:30	Adrian Shelby	08/06/2019 10:38	Joseph Suarez	2107264
	07/31/2019	08/02/2019 12:30	Adrian Shelby	08/06/2019 10:39	Joseph Suarez	2107265
EPA 353.2 Rev. 2.0	07/31/2019			08/01/2019 10:04	Beverly Y. Sanders	2107254
	07/31/2019			08/01/2019 10:05	Beverly Y. Sanders	2107255
	07/31/2019			08/01/2019 10:07	Beverly Y. Sanders	2107262
	07/31/2019			08/01/2019 10:08	Beverly Y. Sanders	2107263

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	07/31/2019			08/01/2019 10:09	Beverly Y. Sanders	2107264
	07/31/2019			08/01/2019 10:10	Beverly Y. Sanders	2107265
EPA 365.1 Rev. 2.0	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 10:30	Lipi Saha	2107265
	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 13:29	Lipi Saha	2107254
	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 13:30	Lipi Saha	2107255
	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 13:31	Lipi Saha	2107262
	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 13:32	Lipi Saha	2107263
	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 13:33	Lipi Saha	2107264
	07/31/2019	08/01/2019 11:17	Vijayalakshmi Reddy	08/02/2019 13:33	Lipi Saha	2107264
EPA 365.1 Rev. 2.0 dissolved	07/31/2019			07/31/2019 16:47	Jhamieka S. Greenwood	2107256
	07/31/2019			07/31/2019 16:54	Jhamieka S. Greenwood	2107257
	07/31/2019			07/31/2019 16:55	Jhamieka S. Greenwood	2107266, 2107267
	07/31/2019			07/31/2019 16:56	Jhamieka S. Greenwood	2107268
	07/31/2019			07/31/2019 16:57	Jhamieka S. Greenwood	2107269
SM 2320 B-97	07/31/2019			08/06/2019 21:39	Dale L. Simmons	2107261
	07/31/2019			08/07/2019 06:48	Dale L. Simmons	2107252
	07/31/2019			08/07/2019 07:00	Dale L. Simmons	2107253
	07/31/2019			08/07/2019 07:13	Dale L. Simmons	2107258
	07/31/2019			08/07/2019 07:27	Dale L. Simmons	2107259
	07/31/2019			08/07/2019 07:40	Dale L. Simmons	2107260
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
SM 2540 D-97	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
	07/31/2019			08/01/2019 14:10	Sima Feizi	2107252, 2107253, 2107258, 2107259, 2107260, 2107261
SM 4500 F-C-97	07/31/2019			08/06/2019 17:30	Dale L. Simmons	2107261
	07/31/2019			08/07/2019 02:56	Dale L. Simmons	2107252
	07/31/2019			08/07/2019 03:55	Dale L. Simmons	2107253
	07/31/2019			08/07/2019 03:59	Dale L. Simmons	2107258
	07/31/2019			08/07/2019 04:03	Dale L. Simmons	2107259
	07/31/2019			08/07/2019 04:07	Dale L. Simmons	2107260
	07/31/2019			08/07/2019 04:07	Dale L. Simmons	2107260
SM 5310 B-00	07/31/2019			08/02/2019 00:55	Madeline Funaro	2107255
	07/31/2019			08/02/2019 02:59	Madeline Funaro	2107254
	07/31/2019			08/02/2019 03:14	Madeline Funaro	2107262
	07/31/2019			08/02/2019 03:28	Madeline Funaro	2107263
	07/31/2019			08/02/2019 03:42	Madeline Funaro	2107264
	07/31/2019			08/02/2019 04:07	Madeline Funaro	2107265
	07/31/2019			08/02/2019 04:07	Madeline Funaro	2107265