

Chemical Analysis Report

SO-DIST-2020-07-14-01

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

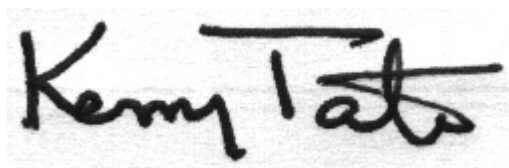
Event Description: **2020 SMP : Okee Canals**
Request ID: **RQ-2020-07-13-25**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Miranda Carroll

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: 30-JUL-2020 11:19

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: HarneyPondCanal@SR70

Collection Date/Time: 07/13/2020 10:45

Field ID: G4SD0173

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182742	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P384594	
	EPA 300.0 Rev. 2.1	Chloride	36	A	mg Cl/L	P384899	
		Sulfate	64	A	mg SO4/L	P384903	
	SM 2120 B-2011	Color (true)	260		PCU	P384601	
	SM 2320 B-2011	Total Alkalinity	46		mg CaCO3/L	P384924	
	SM 2540 C-2011	TDS	283		mg/L	P384945	
	SM 2540 D-2011	TSS	3	I	mg/L	P385022	
	SM 4500 F-C-2011	Fluoride	0.11		mg F/L	P384853	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.48		mg N/L	P384816	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.5		mg N/L	P384697	
2182745	EPA 353.2 Rev. 2.0	NO2NO3-N	0.060		mg N/L	P384710	
	EPA 365.1 Rev. 2.0	Total-P	0.30		mg P/L	P384634	
	SM 5310 B-2011	Organic Carbon	33		mg C/L	P384699	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.22		mg P/L	P384587	
	dissolved						

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: C-41A @ SR 70

Collection Date/Time: 07/13/2020 11:20

Field ID: G4SD0175

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182743	EPA 180.1 Rev. 2.0	Turbidity	9.6	A	NTU	P384594	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P384899	
		Sulfate	25		mg SO4/L	P384903	
	SM 2120 B-2011	Color (true)	72		PCU	P384601	
	SM 2320 B-2011	Total Alkalinity	29		mg CaCO3/L	P385000	
	SM 2540 C-2011	TDS	159		mg/L	P384945	
	SM 2540 D-2011	TSS	17	I	mg/L	P385022	
	SM 4500 F-C-2011	Fluoride	0.079	I	mg F/L	P384853	
2182746	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P384816	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P384697	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P384710	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P384634	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P384699	
2182749	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P384587	

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-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. The PQL was elevated because of sample matrix interference.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: L-49 at Dyess Ditch

Collection Date/Time: 07/13/2020 12:00

Field ID: G4SD0190

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182744	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P384594	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P384899	
		Sulfate	58		mg SO4/L	P384903	
	SM 2120 B-2011	Color (true)	70		PCU	P384601	
	SM 2320 B-2011	Total Alkalinity	147		mg CaCO3/L	P385000	
	SM 2540 C-2011	TDS	472		mg/L	P384945	
	SM 2540 D-2011	TSS	3	I	mg/L	P385022	
	SM 4500 F-C-2011	Fluoride	0.19		mg F/L	P384853	
2182747	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P384817	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P384697	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P384710	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P384634	
	SM 5310 B-2011	Organic Carbon	21		mg C/L	P384700	
2182750	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P384587	

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: L-49 @ Dyess Ditch

Collection Date/Time: 07/13/2020 12:10

Field ID: FB_07132020

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182751	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P384595	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P384899	
		Sulfate	0.20	U	mg SO4/L	P384903	
		Color (true)	2.5	U	PCU	P384602	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P385000	
	SM 2540 C-2011	TDS	15	U	mg/L	P384943	
	SM 2540 D-2011	TSS	2	U	mg/L	P385020	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P384853	
2182752	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P384817	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P384697	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P384710	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P384634	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P384700	
2182753	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P384587	
2182760	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P384585	
		Calcium	0.075	U	mg/L	P384585	
		Iron	30	U	ug/L	P384585	
		Magnesium	0.040	U	mg/L	P384585	
		Potassium	0.30	U	mg/L	P384585	
		Sodium	0.50	U	mg/L	P384585	
		Zinc	5.0	U	ug/L	P384585	
		Aluminum	5.0	U	ug/L	P384585	
		Antimony	0.050	U	ug/L	P384585	
		Arsenic	0.050	U	ug/L	P384585	
		Boron**	6.8	I	ug/L	P384585	
		Cadmium	0.020	U	ug/L	P384585	
		Chromium	0.40	U	ug/L	P384585	
	EPA 200.8 Rev. 5.4	Copper	0.40	U	ug/L	P384585	
		Lead	0.20	U	ug/L	P384585	
		Nickel	0.50	U	ug/L	P384585	
		Selenium	0.20	U	ug/L	P384585	
		Silver	0.010	U	ug/L	P384585	
		Thallium	0.10	U	ug/L	P384585	
		Hardness	0.35	U	mg/L	P384585	
	SM 2340B						

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The boron result was confirmed in the undigested sample on 07/16/2020.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384594

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384595

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384585

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384585

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	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 Rev. 2.1
Batch ID: P384899

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384903

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384816

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384817

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384697

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384710

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384634

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384587

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

Reference Method: SM 2120 B-2011
Batch ID: P384601

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P384602

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P384924

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P385000

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

Reference Method: SM 2540 C-2011
Batch ID: P384943

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P384945

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385020

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385022

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P384853

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P384699

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

Reference Method: SM 5310 B-2011
Batch ID: P384700

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: P384585

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	104		P	85 - 115
Calcium	109		P	85 - 115
Iron	106		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	104		P	85 - 115
Sodium	99.6		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384585

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.9		P	85 - 115
Antimony	96.9		P	85 - 115
Arsenic	102		P	85 - 115
Boron	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	95.5		P	85 - 115
Copper	95.6		P	85 - 115
Lead	98.3		P	85 - 115
Nickel	98.6		P	85 - 115
Selenium	99.2		P	85 - 115
Silver	100		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384899

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384903

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384817

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384697

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384710

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: P384634

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384587

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

Reference Method: SM 2120 B-2011
Batch ID: P384601

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	85 - 115

Reference Method: SM 2120 B-2011
Batch ID: P384602

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

Reference Method: SM 2320 B-2011
Batch ID: P384924

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	93 - 104

Reference Method: SM 2320 B-2011
Batch ID: P385000

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P384853

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	90 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P384699

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.9		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P384700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384585

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2181995	Barium	106		P	80 - 120
2181995	Calcium	108		P	80 - 120
2181995	Iron	105		P	80 - 120
2181995	Magnesium	107		P	80 - 120
2181995	Potassium	108		P	80 - 120
2181995	Sodium	102		P	80 - 120
2181995	Zinc	108		P	80 - 120
2182728	Barium	105	106	P/P	80 - 120
2182728	Calcium	103	107	P/P	80 - 120
2182728	Iron	101	105	P/P	80 - 120
2182728	Magnesium	103	107	P/P	80 - 120
2182728	Potassium	104	107	P/P	80 - 120
2182728	Sodium	102	103	P/P	80 - 120
2182728	Zinc	106	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384585

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2181995	Aluminum	98.5		P	80 - 120
2181995	Antimony	95.4		P	80 - 120
2181995	Arsenic	101		P	80 - 120
2181995	Boron	101		P	80 - 120
2181995	Cadmium	99.6		P	80 - 120
2181995	Chromium	98.5		P	80 - 120
2181995	Copper	98.3		P	80 - 120
2181995	Lead	99.2		P	80 - 120
2181995	Nickel	97.5		P	80 - 120
2181995	Selenium	95.6		P	80 - 120
2181995	Silver	98.1		P	80 - 120
2181995	Thallium	102		P	80 - 120
2182728	Aluminum	99.9	97.1	P/P	80 - 120
2182728	Antimony	96.1	95.7	P/P	80 - 120
2182728	Arsenic	101	101	P/P	80 - 120
2182728	Boron	101	97.9	P/P	80 - 120
2182728	Cadmium	99.7	99.2	P/P	80 - 120
2182728	Chromium	97.0	96.0	P/P	80 - 120
2182728	Copper	96.8	95.8	P/P	80 - 120
2182728	Lead	98.2	97.5	P/P	80 - 120
2182728	Nickel	99.7	97.9	P/P	80 - 120
2182728	Selenium	98.1	97.5	P/P	80 - 120
2182728	Silver	98.9	98.6	P/P	80 - 120
2182728	Thallium	101	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384899

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182625	Chloride	102		P	90 - 110
2182742	Chloride	101		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182625	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182627	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384817

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182776	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384710

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182725	NO2NO3-N	99.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182628	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182629	O-Phosphate-P	98.3	99.5	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P384853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183318	Fluoride	100	100	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P384699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182627	Organic Carbon	100	101	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P384700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182774	Organic Carbon	97.2	97.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182743	Turbidity	0.934	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182765	Turbidity	4.35	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384585

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182728	Barium	1.49	Spike	P	0 - 20
2182728	Calcium	4.00	Spike	P	0 - 20
2182728	Iron	3.98	Spike	P	0 - 20
2182728	Magnesium	3.85	Spike	P	0 - 20
2182728	Potassium	2.31	Spike	P	0 - 20
2182728	Sodium	0.426	Spike	P	0 - 20
2182728	Zinc	1.57	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384585

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182728	Aluminum	2.71	Spike	P	0 - 20
2182728	Antimony	0.463	Spike	P	0 - 20
2182728	Arsenic	0.200	Spike	P	0 - 20
2182728	Boron	2.64	Spike	P	0 - 20
2182728	Cadmium	0.528	Spike	P	0 - 20
2182728	Chromium	0.990	Spike	P	0 - 20
2182728	Copper	1.06	Spike	P	0 - 20
2182728	Lead	0.782	Spike	P	0 - 20
2182728	Nickel	1.81	Spike	P	0 - 20
2182728	Selenium	0.662	Spike	P	0 - 20
2182728	Silver	0.272	Spike	P	0 - 20
2182728	Thallium	0.838	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182742	Chloride	0.735	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P384903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182742	Sulfate	0.921	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182627	Ammonia-N	0.526	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182776	Ammonia-N	0.0499	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182747	Kjeldahl Nitrogen	4.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182725	NO2NO3-N	0.244	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182628	Total-P	1.60	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182629	O-Phosphate-P	1.21	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P384601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182692	Color (true)	0.606	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P384602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182766	Color (true)	0.641	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P384924

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2181870	Total Alkalinity	0.219	Sample	P	0 - 8.1

Reference Method: SM 2320 B-2011
Batch ID: P385000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183317	Total Alkalinity	1.87	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P384943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182323	TDS	7.84	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P384945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182730	TDS	2.99	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P384853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183318	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P384699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182627	Organic Carbon	0.587	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P384700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182774	Organic Carbon	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A100019

Included Lab Sample IDs: 2182743, 2182744, 2182751

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A99861

Included Lab Sample IDs: 2182748, 2182749, 2182750, 2182753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.7	96.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A99865

Included Lab Sample IDs: 2182742, 2182743, 2182744, 2182751

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	102	P/P	95 - 105
Turbidity	102	102	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A99866

Included Lab Sample IDs: 2182742, 2182743, 2182744, 2182751

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	100	P/P	90 - 115
Color (true)	100	101	P/P	90 - 115
Color (true)	101	104	P/P	90 - 115

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A99901

Included Lab Sample IDs: 2182760

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	103	P/P	90 - 110
Calcium	101	102	P/P	90 - 110
Iron	100	101	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Potassium	99.1	99.5	P/P	90 - 110
Sodium	99.5	100	P/P	90 - 110
Zinc	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99905

Included Lab Sample IDs: 2182745, 2182746

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.3	100	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A99908

Included Lab Sample IDs: 2182745, 2182746, 2182747, 2182752

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

Reference Method: SM 5310 B-2011

Run ID: A99908

Included Lab Sample IDs: 2182745, 2182746, 2182747, 2182752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	94.8	P/P	90 - 110
Organic Carbon	99.0	95.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A99910

Included Lab Sample IDs: 2182745, 2182746, 2182747, 2182752

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99923

Included Lab Sample IDs: 2182760

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	98.6	P/P	90 - 110
Antimony	95.1	96.9	P/P	90 - 110
Arsenic	101	102	P/P	90 - 110
Boron	102	99.8	P/P	90 - 110
Cadmium	98.8	99.9	P/P	90 - 110
Lead	99.3	99.2	P/P	90 - 110
Nickel	97.7	100	P/P	90 - 110
Selenium	100	101	P/P	90 - 110
Silver	97.4	98.2	P/P	90 - 110
Thallium	98.0	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A99951

Included Lab Sample IDs: 2182745, 2182746, 2182747, 2182752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.1	99.4	P/P	90 - 110
Kjeldahl Nitrogen	99.4	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99954

Included Lab Sample IDs: 2182745, 2182746, 2182747, 2182752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	P/P	90 - 110
Ammonia-N	98.1	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99960

Included Lab Sample IDs: 2182747, 2182752

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	98.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A99965

Included Lab Sample IDs: 2182742, 2182743, 2182744, 2182751

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A99978

Included Lab Sample IDs: 2182742, 2182743, 2182744, 2182751

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99979

Included Lab Sample IDs: 2182760

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	95.2	93.9	P/P	90 - 110
Copper	96.4	95.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A99986

Included Lab Sample IDs: 2182742

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	97.0	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					0.934	
	Turbidity					4.35	
EPA 200.7 Rev. 4.4	Barium	104	106	105	106		1.49
	Calcium	109	108	103	107		4.00
	Iron	106	105	101	105		3.98
	Magnesium	107	107	103	107		3.85
	Potassium	104	108	104	107		2.31
	Sodium	99.6	102	102	103		0.426
	Zinc	106	108	106	107		1.57
EPA 200.8 Rev. 5.4	Aluminum	96.9	99.9	97.1	98.5		2.71
	Antimony	96.9	96.1	95.7	95.4		0.463
	Arsenic	102	101	101	101		0.200
	Boron	101	101	97.9	101		2.64
	Cadmium	101	99.7	99.2	99.6		0.528
	Chromium	95.5	97.0	96.0	98.5		0.990
	Copper	95.6	96.8	95.8	98.3		1.06
	Lead	98.3	98.2	97.5	99.2		0.782
	Nickel	98.6	99.7	97.9	97.5		1.81
	Selenium	99.2	98.1	97.5	95.6		0.662
	Silver	100	98.1	98.9	98.6		0.272
	Thallium	101	101	102	102		0.838
EPA 300.0 Rev. 2.1	Chloride	103	101	102		0.735	
	Sulfate	100	101			0.921	
EPA 350.1 Rev. 2.0	Ammonia-N	99.8	103	104			0.526
	Ammonia-N	101	101	100			0.0499
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5					4.23
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	99.8				0.244
EPA 365.1 Rev. 2.0	Total-P	104	104	106			1.60
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6	98.3	99.5			1.21
SM 2120 B-2011	Color (true)	98.6				0.606	
	Color (true)	101				0.641	
SM 2320 B-2011	Total Alkalinity	98.9				0.219	
	Total Alkalinity	102				1.87	
SM 2540 C-2011	TDS					7.84	
	TDS					2.99	
SM 4500 F-C-2011	Fluoride	98.0	100	100			0.0
SM 5310 B-2011	Organic Carbon	99.9	100	101			0.587
	Organic Carbon	98.7	97.2	97.2			0.0

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2182742, 2182743, 2182744, 2182751
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2182760
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2182760
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2182742, 2182743, 2182744, 2182751
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2182742, 2182743, 2182744, 2182751
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2182745, 2182746, 2182747, 2182752
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2182745, 2182746, 2182747, 2182752
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2182745, 2182746, 2182747, 2182752
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2182745, 2182746, 2182747, 2182752

Reference Method Descriptions

Method	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2182748, 2182749, 2182750, 2182753
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2182742, 2182743, 2182744, 2182751
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2182742, 2182743, 2182744, 2182751
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2182760
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2182742, 2182743, 2182744, 2182751
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2182742, 2182743, 2182744, 2182751
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2182742, 2182743, 2182744, 2182751
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2182745, 2182746, 2182747, 2182752

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	07/14/2020			07/14/2020 15:46	Yen Ta	2182742, 2182743, 2182744, 2182751
EPA 200.7 Rev. 4.4	07/14/2020	07/14/2020 16:10	Elliott D. Healy	07/15/2020 15:22	Betina Topolski	2182760
EPA 200.8 Rev. 5.4	07/14/2020	07/14/2020 16:10	Elliott D. Healy	07/16/2020 21:54	Alexander Thompson	2182760
	07/14/2020	07/14/2020 16:10	Elliott D. Healy	07/17/2020 15:53	Alexander Thompson	2182760
EPA 300.0 Rev. 2.1	07/14/2020			07/17/2020 15:33	Julia Storbeck	2182742
	07/14/2020			07/17/2020 18:58	Julia Storbeck	2182743
	07/14/2020			07/17/2020 19:10	Julia Storbeck	2182744
	07/14/2020			07/17/2020 19:22	Julia Storbeck	2182751
EPA 350.1 Rev. 2.0	07/14/2020			07/18/2020 10:42	Ping Hua	2182747
	07/14/2020			07/18/2020 10:48	Ping Hua	2182752
	07/14/2020			07/18/2020 14:02	Ping Hua	2182745
	07/14/2020			07/18/2020 14:04	Ping Hua	2182746
EPA 351.2 Rev. 2.0	07/14/2020	07/16/2020 09:35	Sima Feizi	07/17/2020 14:31	Jhamieka S. Greenwood	2182747
	07/14/2020	07/16/2020 09:35	Sima Feizi	07/17/2020 14:38	Jhamieka S. Greenwood	2182745
	07/14/2020	07/16/2020 09:35	Sima Feizi	07/17/2020 14:39	Jhamieka S. Greenwood	2182746
	07/14/2020	07/16/2020 09:35	Sima Feizi	07/17/2020 14:44	Jhamieka S. Greenwood	2182752
EPA 353.2 Rev. 2.0	07/14/2020			07/16/2020 10:07	Beverly Y. Sanders	2182745
	07/14/2020			07/16/2020 10:08	Beverly Y. Sanders	2182746
	07/14/2020			07/16/2020 10:10	Beverly Y. Sanders	2182747
	07/14/2020			07/16/2020 10:11	Beverly Y. Sanders	2182752
EPA 365.1 Rev. 2.0	07/14/2020	07/15/2020 12:01	Yen Ta	07/16/2020 08:55	Benjamin T. Nordmann	2182745
	07/14/2020	07/15/2020 12:01	Yen Ta	07/16/2020 08:56	Benjamin T. Nordmann	2182746
	07/14/2020	07/15/2020 12:01	Yen Ta	07/17/2020 11:13	Lipi Saha	2182747
	07/14/2020	07/15/2020 12:01	Yen Ta	07/17/2020 11:14	Lipi Saha	2182752
EPA 365.1 Rev. 2.0 dissolved	07/14/2020			07/14/2020 15:08	Carlos Miranda	2182748, 2182749
	07/14/2020			07/14/2020 15:09	Carlos Miranda	2182750
	07/14/2020			07/14/2020 15:10	Carlos Miranda	2182753
SM 2120 B-2011	07/14/2020			07/14/2020 16:18	Benjamin T. Nordmann	2182743
	07/14/2020			07/14/2020 16:19	Benjamin T. Nordmann	2182744
	07/14/2020			07/14/2020 16:24	Benjamin T. Nordmann	2182751
	07/14/2020			07/14/2020 16:40	Benjamin T. Nordmann	2182742
SM 2320 B-2011	07/14/2020			07/20/2020 20:00	Samantha Davila	2182742
	07/14/2020			07/21/2020 18:21	Dale L. Simmons	2182743
	07/14/2020			07/21/2020 18:32	Dale L. Simmons	2182744
	07/14/2020			07/21/2020 18:39	Dale L. Simmons	2182751
SM 2340B	07/14/2020			07/15/2020 15:22	Betina Topolski	2182760
SM 2540 C-2011	07/14/2020			07/15/2020 15:29	Yijie Li	2182742, 2182743, 2182744, 2182751
SM 2540 D-2011	07/14/2020			07/15/2020 15:29	Yijie Li	2182742, 2182743, 2182744, 2182751
SM 4500 F-C-2011	07/14/2020			07/18/2020 04:11	Samantha Davila	2182742
	07/14/2020			07/18/2020 04:23	Samantha Davila	2182743

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	07/14/2020			07/18/2020 04:36	Samantha Davila	2182744
	07/14/2020			07/18/2020 04:45	Samantha Davila	2182751
SM 5310 B-2011	07/14/2020			07/15/2020 22:00	David Boose	2182745
	07/14/2020			07/15/2020 22:14	David Boose	2182746
	07/14/2020			07/16/2020 00:14	David Boose	2182747
	07/14/2020			07/16/2020 00:28	David Boose	2182752