

Chemical Analysis Report

NW-DIST-2023-03-08-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

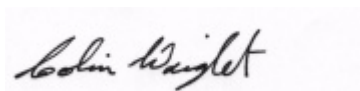
Event Description: **Rest Area Run**
Request ID: **RQ-2023-03-06-51**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

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

Certified by: Colin Wright, Program Administrator

Date Certified: 03-APR-2023 11:55

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

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: Rest Area Run below Beaver Pond Creek

Collection Date/Time: 03/07/2023 12:20

Field ID: G5NW0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2392733	DEP SOP: NU-094-1	Color (true)	75	A	PCU	P426884	
	EPA 180.1 Rev. 2.0	Turbidity	8.1	A	NTU	P426877	
	EPA 300.0 Rev. 2.1	Chloride	7.8		mg Cl/L	P427504	
		Sulfate	2.8		mg SO4/L	P427506	
	SM 2320 B-2011	Total Alkalinity	7.6		mg CaCO3/L	P427035	
	SM 2540 C-2015	TDS	49		mg/L	P427448	
	SM 2540 D-2015	TSS	2	U	mg/L	P427486	
2392736	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P427162	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P426946	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P426987	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P427125	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P427064	
2392751	SM 5310 B-2011	Organic Carbon	5.5		mg C/L	P427057	
	EPA 200.7 Rev. 4.4	Calcium	3.84		mg/L	P426925	
		Iron	680		ug/L	P426925	
		Magnesium	1.25		mg/L	P426925	
		Potassium	1.5		mg/L	P426925	
		Sodium	5.3		mg/L	P426925	
		Strontium	15.6		ug/L	P426925	
		Tin	3.0	U	ug/L	P426925	
		Titanium	9.0		ug/L	P426925	
		Vanadium	2.0	U	ug/L	P426925	
		Zinc	5.0	U	ug/L	P426925	
	EPA 200.8 Rev. 5.4	Aluminum	285		ug/L	P426925	
		Antimony	0.050	U	ug/L	P426925	
		Arsenic	0.36		ug/L	P426925	
		Barium	20.0		ug/L	P426925	
		Beryllium	0.018	I	ug/L	P426925	
		Boron	23.8		ug/L	P426925	
		Cadmium	0.020	U	ug/L	P426925	
		Chromium	0.44	I	ug/L	P426925	
		Cobalt	0.101		ug/L	P426925	
		Copper	0.40	U	ug/L	P426925	
		Lead	0.25	I	ug/L	P426925	
		Manganese	8.62		ug/L	P426925	
		Molybdenum	0.15	U	ug/L	P426925	
		Nickel	0.50	U	ug/L	P426925	
		Selenium	0.20	U	ug/L	P426925	
		Silver	0.010	U	ug/L	P426925	
		Thallium	0.10	U	ug/L	P426925	
	SM 2340 B-2011	Hardness	14.7		mg/L	P426925	

Sample Location: Beaver Pond Creek

Collection Date/Time: 03/07/2023 12:30

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2392734	DEP SOP: NU-094-1	Color (true)	46	A	PCU	P426887	
	EPA 180.1 Rev. 2.0	Turbidity	32		NTU	P426877	
	EPA 300.0 Rev. 2.1	Chloride	14	A	mg Cl/L	P427504	
		Sulfate	3.5	A	mg SO4/L	P427506	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P427035	
	SM 2540 C-2015	TDS	98		mg/L	P427448	
	SM 2540 D-2015	TSS	41		mg/L	P427486	
	SM 4500-F- C-2011	Fluoride	0.051	I	mg F/L	P427162	
2392737	EPA 350.1 Rev. 2.0	Ammonia-N	0.094		mg N/L	P426946	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P426987	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.098		mg N/L	P427125	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P427064	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P427057	
2392752	EPA 200.7 Rev. 4.4	Calcium	14.3		mg/L	P426925	
		Iron	4.06E+03		ug/L	P426925	
		Magnesium	2.84		mg/L	P426925	
		Potassium	4.2		mg/L	P426925	
		Sodium	11.8		mg/L	P426925	
		Strontium	39.3		ug/L	P426925	
		Tin	3.0	U	ug/L	P426925	
		Titanium	27.3		ug/L	P426925	
	EPA 200.8 Rev. 5.4	Vanadium	2.6	I	ug/L	P426925	
		Zinc	6.0	I	ug/L	P426925	
		Aluminum	755		ug/L	P426925	
		Antimony	0.073	I	ug/L	P426925	
		Arsenic	1.24		ug/L	P426925	
		Barium	20.6		ug/L	P426925	
		Beryllium	0.028	I	ug/L	P426925	
		Boron	68.1		ug/L	P426925	
		Cadmium	0.020	U	ug/L	P426925	
		Chromium	1.2	I	ug/L	P426925	
		Cobalt	0.486		ug/L	P426925	
		Copper	0.80		ug/L	P426925	
		Lead	0.66		ug/L	P426925	
		Manganese	135		ug/L	P426925	
		Molybdenum	0.18	I	ug/L	P426925	
		Nickel	0.86	I	ug/L	P426925	
		Selenium	0.20	U	ug/L	P426925	
		Silver	0.010	U	ug/L	P426925	
		Thallium	0.10	U	ug/L	P426925	
	SM 2340 B-2011	Hardness	47.4		mg/L	P426925	

Sample Location: Tributary South of Perdido Landfill

Collection Date/Time: 03/07/2023 13:10

Field ID: G5NW0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2392735	DEP SOP: NU-094-1	Color (true)	39		PCU	P426887	
	EPA 180.1 Rev. 2.0	Turbidity	50		NTU	P426877	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P427504	
		Sulfate	12		mg SO4/L	P427506	
	SM 2320 B-2011	Total Alkalinity	52		mg CaCO3/L	P427035	
	SM 2540 C-2015	TDS	127	A	mg/L	P427448	
	SM 2540 D-2015	TSS	12	A	mg/L	P427486	
2392738	SM 4500-F- C-2011	Fluoride	0.053	I	mg F/L	P427294	
	EPA 350.1 Rev. 2.0	Ammonia-N	2.4		mg N/L	P426946	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	4.2		mg N/L	P427736	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P427125	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P427064	
2392753	SM 5310 B-2011	Organic Carbon	13		mg C/L	P427057	
	EPA 200.7 Rev. 4.4	Calcium	16.1		mg/L	P426925	
		Iron	4.44E+03		ug/L	P426925	
		Magnesium	2.72		mg/L	P426925	
		Potassium	6.4		mg/L	P426925	
		Sodium	16.8		mg/L	P426925	
		Strontium	44.1		ug/L	P426925	
		Tin	3.0	U	ug/L	P426925	
		Titanium	57.5		ug/L	P426925	
		Vanadium	4.2	I	ug/L	P426925	
		Zinc	5.0	U	ug/L	P426925	
	EPA 200.8 Rev. 5.4	Aluminum	1.39E+03		ug/L	P426925	
		Antimony	0.15	I	ug/L	P426925	
		Arsenic	2.03		ug/L	P426925	
		Barium	23.6		ug/L	P426925	
		Beryllium	0.023	I	ug/L	P426925	
		Boron	77.7		ug/L	P426925	
		Cadmium	0.020	U	ug/L	P426925	
		Chromium	2.3		ug/L	P426925	
		Cobalt	0.519		ug/L	P426925	
		Copper	1.32		ug/L	P426925	
		Lead	0.99		ug/L	P426925	
		Manganese	127		ug/L	P426925	
		Molybdenum	0.44	I	ug/L	P426925	
		Nickel	1.1	I	ug/L	P426925	
		Selenium	0.23	I	ug/L	P426925	
		Silver	0.010	U	ug/L	P427227	
		Thallium	0.10	U	ug/L	P426925	
	SM 2340 B-2011	Hardness	51.3		mg/L	P426925	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P426884

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P426887

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426877

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426925

Component	Result	Code	Units
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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426925

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427227

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427504

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427506

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426946

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426987

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427125

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427064

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

Reference Method: SM 2320 B-2011
Batch ID: P427035

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P427448

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P427486

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P427162

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P427294

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P427057

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P426884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P426887

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.9		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426877

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426925

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	108		P	85 - 115
Iron	108		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	105		P	85 - 115
Sodium	108		P	85 - 115
Strontium	103		P	85 - 115
Tin	103		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426925

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.9		P	80 - 120
Antimony	97.8		P	80 - 120
Arsenic	98.4		P	80 - 120
Barium	102		P	80 - 120
Beryllium	91.5		P	80 - 120
Boron	99.6		P	80 - 120
Cadmium	100		P	80 - 120
Chromium	98.4		P	80 - 120
Cobalt	98.2		P	80 - 120
Copper	96.8		P	80 - 120
Lead	97.5		P	80 - 120
Manganese	102		P	80 - 120
Molybdenum	95.7		P	80 - 120
Nickel	98.9		P	80 - 120
Selenium	99.1		P	80 - 120
Silver	96.8		P	80 - 120
Thallium	101		P	80 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427227

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	96.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427504

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427506

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426946

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	92.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427125

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427064

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

Reference Method: SM 2320 B-2011
Batch ID: P427035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.1		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P427448

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.4		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P427486

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	102		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P427162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P427294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427057

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426925

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392454	Calcium	106	106	P/P	80 - 120
2392454	Iron	106	107	P/P	80 - 120
2392454	Magnesium	108	108	P/P	80 - 120
2392454	Potassium	108	108	P/P	80 - 120
2392454	Sodium	106	105	P/P	80 - 120
2392454	Strontium	103	103	P/P	80 - 120
2392454	Tin	103	105	P/P	80 - 120
2392454	Titanium	97.4	91.0	P/P	80 - 120
2392454	Vanadium	104	103	P/P	80 - 120
2392454	Zinc	103	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426925

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392454	Aluminum	102	99.6	P/P	80 - 120
2392454	Antimony	97.9	97.0	P/P	80 - 120
2392454	Arsenic	99.2	99.4	P/P	80 - 120
2392454	Barium	103	103	P/P	80 - 120
2392454	Beryllium	94.0	91.9	P/P	80 - 120
2392454	Boron	101	101	P/P	80 - 120
2392454	Cadmium	99.1	98.7	P/P	80 - 120
2392454	Chromium	101	100	P/P	80 - 120
2392454	Cobalt	98.1	98.1	P/P	80 - 120
2392454	Copper	99.0	98.0	P/P	80 - 120
2392454	Lead	96.5	97.9	P/P	80 - 120
2392454	Manganese	104	103	P/P	80 - 120
2392454	Molybdenum	95.8	97.0	P/P	80 - 120
2392454	Nickel	101	101	P/P	80 - 120
2392454	Selenium	98.9	98.7	P/P	80 - 120
2392454	Silver	97.2	97.0	P/P	80 - 120
2392454	Thallium	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393877	Silver	95.4	94.5	P/P	80 - 120
2393881	Silver	96.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427504

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392734	Chloride	99.4		P	90 - 110
2392735	Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427506

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392734	Sulfate	98.5		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427506

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392735	Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392567	Ammonia-N	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392566	Kjeldahl Nitrogen	103	96.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2394688	Kjeldahl Nitrogen	100	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427125

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392736	NO2NO3-N	90.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392567	Total-P	103	104	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P427162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392889	Fluoride	100	101	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P427294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2393167	Fluoride	98.5	99.3	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427057

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2392542	Organic Carbon	95.4	97.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P426884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392733	Color (true)	1.02	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P426887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392734	Color (true)	0.476	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P426877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392733	Turbidity	0.247	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P426925

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392454	Calcium	0.0571	Spike	P	0 - 20
2392454	Iron	0.751	Spike	P	0 - 20
2392454	Magnesium	0.0123	Spike	P	0 - 20
2392454	Potassium	0.325	Spike	P	0 - 20
2392454	Sodium	0.330	Spike	P	0 - 20
2392454	Strontium	0.182	Spike	P	0 - 20
2392454	Tin	1.92	Spike	P	0 - 20
2392454	Titanium	5.62	Spike	P	0 - 20
2392454	Vanadium	0.398	Spike	P	0 - 20
2392454	Zinc	1.50	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426925

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392454	Aluminum	1.73	Spike	P	0 - 20
2392454	Antimony	0.979	Spike	P	0 - 20
2392454	Arsenic	0.250	Spike	P	0 - 20
2392454	Barium	0.712	Spike	P	0 - 20
2392454	Beryllium	2.05	Spike	P	0 - 20
2392454	Boron	0.858	Spike	P	0 - 20
2392454	Cadmium	0.348	Spike	P	0 - 20
2392454	Chromium	0.674	Spike	P	0 - 20
2392454	Cobalt	0.0140	Spike	P	0 - 20
2392454	Copper	1.01	Spike	P	0 - 20
2392454	Lead	1.42	Spike	P	0 - 20
2392454	Manganese	0.221	Spike	P	0 - 20
2392454	Molybdenum	1.18	Spike	P	0 - 20
2392454	Nickel	0.853	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426925

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392454	Selenium	0.258	Spike	P	0 - 20
2392454	Silver	0.203	Spike	P	0 - 20
2392454	Thallium	1.34	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P427227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393877	Silver	0.964	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392734	Chloride	0.499	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427506

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392734	Sulfate	0.920	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392567	Ammonia-N	1.87	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392566	Kjeldahl Nitrogen	3.01	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2394688	Kjeldahl Nitrogen	0.480	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427125

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427125

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392736	NO2NO3-N	0.195	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392567	Total-P	0.497	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P427035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392889	Total Alkalinity	0.840	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P427448

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392735	TDS	1.57	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P427486

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392735	TSS	6.90	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P427162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392889	Fluoride	0.467	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P427294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2393167	Fluoride	0.524	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P427057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2392542	Organic Carbon	1.40	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: EPA 180.1 Rev. 2.0

Run ID: A117876

Included Lab Sample IDs: 2392733, 2392734, 2392735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	101	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A117877

Included Lab Sample IDs: 2392733, 2392734, 2392735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.3	99.6	P/P	90 - 110
Color (true)	99.0	98.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117903

Included Lab Sample IDs: 2392736, 2392737, 2392738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.7	P/P	90 - 110
Ammonia-N	99.2	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117947

Included Lab Sample IDs: 2392751, 2392752, 2392753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	97.8	P/P	90 - 110
Aluminum	97.8	99.4	P/P	90 - 110
Antimony	95.9	96.1	P/P	90 - 110
Antimony	97.1	95.9	P/P	90 - 110
Arsenic	98.2	97.9	P/P	90 - 110
Arsenic	98.6	98.2	P/P	90 - 110
Barium	101	98.9	P/P	90 - 110
Barium	98.9	98.8	P/P	90 - 110
Beryllium	96.4	97.0	P/P	90 - 110
Beryllium	97.0	95.5	P/P	90 - 110
Boron	94.9	97.0	P/P	90 - 110
Boron	96.8	94.9	P/P	90 - 110
Cadmium	97.6	97.4	P/P	90 - 110
Cadmium	98.1	97.6	P/P	90 - 110
Chromium	96.0	97.6	P/P	90 - 110
Chromium	97.6	96.4	P/P	90 - 110
Cobalt	96.2	96.5	P/P	90 - 110
Cobalt	96.5	96.5	P/P	90 - 110
Copper	95.9	95.4	P/P	90 - 110
Copper	97.5	95.9	P/P	90 - 110
Lead	96.2	96.6	P/P	90 - 110
Lead	98.3	96.2	P/P	90 - 110
Manganese	101	99.5	P/P	90 - 110
Manganese	98.8	101	P/P	90 - 110
Molybdenum	94.5	94.6	P/P	90 - 110
Molybdenum	95.2	94.5	P/P	90 - 110
Nickel	97.2	97.7	P/P	90 - 110
Nickel	98.4	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117947

Included Lab Sample IDs: 2392751, 2392752, 2392753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	101	98.8	P/P	90 - 110
Selenium	98.8	99.6	P/P	90 - 110
Silver	96.2	95.9	P/P	90 - 110
Silver	97.1	96.2	P/P	90 - 110
Thallium	100	98.8	P/P	90 - 110
Thallium	98.8	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A117948

Included Lab Sample IDs: 2392733, 2392734, 2392735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	94.9	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A117952

Included Lab Sample IDs: 2392736, 2392737, 2392738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	99.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117976

Included Lab Sample IDs: 2392736, 2392737, 2392738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117984

Included Lab Sample IDs: 2392736, 2392737

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	93.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A117988

Included Lab Sample IDs: 2392733, 2392734

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118001

Included Lab Sample IDs: 2392737, 2392738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.7	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118052

Included Lab Sample IDs: 2392736

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

Reference Method: SM 4500-F- C-2011

Run ID: A118053

Included Lab Sample IDs: 2392735

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118071

Included Lab Sample IDs: 2392753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	94.2	94.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118124

Included Lab Sample IDs: 2392733, 2392734, 2392735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.8	99.2	P/P	90 - 110
Sulfate	98.2	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A118147

Included Lab Sample IDs: 2392751, 2392752, 2392753

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	105	P/P	90 - 110
Calcium	105	104	P/P	90 - 110
Iron	104	106	P/P	90 - 110
Iron	106	104	P/P	90 - 110
Magnesium	104	105	P/P	90 - 110
Magnesium	105	103	P/P	90 - 110
Potassium	102	103	P/P	90 - 110
Potassium	103	103	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Strontium	101	102	P/P	90 - 110
Strontium	103	101	P/P	90 - 110
Tin	103	103	P/P	90 - 110
Tin	104	103	P/P	90 - 110
Titanium	101	102	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Vanadium	101	102	P/P	90 - 110
Vanadium	102	101	P/P	90 - 110
Zinc	105	105	P/P	90 - 110
Zinc	105	104	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118273

Included Lab Sample IDs: 2392738

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	94.6	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	98.8				1.02	
	Color (true)	96.9				0.476	
EPA 180.1 Rev. 2.0	Turbidity	100				0.247	
EPA 200.7 Rev. 4.4	Calcium	108	106	106			0.0571
	Iron	108	106	107			0.751
	Magnesium	108	108	108			0.0123
	Potassium	105	108	108			0.325
	Sodium	108	106	105			0.330
	Strontium	103	103	103			0.182
	Tin	103	103	105			1.92
	Titanium	103	97.4	91.0			5.62
	Vanadium	103	104	103			0.398
	Zinc	105	103	105			1.50
EPA 200.8 Rev. 5.4	Aluminum	98.9	102	99.6			1.73
	Antimony	97.8	97.9	97.0			0.979
	Arsenic	98.4	99.2	99.4			0.250
	Barium	102	103	103			0.712
	Beryllium	91.5	94.0	91.9			2.05
	Boron	99.6	101	101			0.858
	Cadmium	100	99.1	98.7			0.348
	Chromium	98.4	101	100			0.674
	Cobalt	98.2	98.1	98.1			0.0140
	Copper	96.8	99.0	98.0			1.01
	Lead	97.5	96.5	97.9			1.42
	Manganese	102	104	103			0.221
	Molybdenum	95.7	95.8	97.0			1.18
	Nickel	98.9	101	101			0.853
	Selenium	99.1	98.9	98.7			0.258
	Silver	96.8	97.2	97.0			0.203
	Silver	96.0	95.4	94.5	96.2		0.964
	Thallium	101	101	102			1.34
EPA 300.0 Rev. 2.1	Chloride	99.7	99.4	98.2		0.499	
	Sulfate	99.4	98.5	95.6		0.920	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	98.8	101			1.87
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.0	103	96.8			3.01
	Kjeldahl Nitrogen	92.6	100	99.3			0.480
EPA 353.2 Rev. 2.0	NO2NO3-N	102	90.5				0.195
EPA 365.1 Rev. 2.0	Total-P	102	104	103			0.497
SM 2320 B-2011	Total Alkalinity	95.1				0.840	
SM 2540 C-2015	TDS	97.4				1.57	
SM 2540 D-2015	TSS	102				6.90	
SM 4500-F- C-2011	Fluoride	99.8	100	101			0.467
	Fluoride	97.7	98.5	99.3			0.524
SM 5310 B-2011	Organic Carbon	96.0	95.4	97.5			1.40

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2392733, 2392734, 2392735
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2392733, 2392734, 2392735
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2392751, 2392752, 2392753

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2392751, 2392752, 2392753
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2392733, 2392734, 2392735
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2392733, 2392734, 2392735
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2392736, 2392737, 2392738
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2392736, 2392737, 2392738
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2392736, 2392737, 2392738
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2392736, 2392737, 2392738
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2392733, 2392734, 2392735
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2392751, 2392752, 2392753
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2392733, 2392734, 2392735
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2392733, 2392734, 2392735
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2392733, 2392734, 2392735
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2392736, 2392737, 2392738

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	03/08/2023			03/08/2023 14:56	Samantha L Bates	2392733
	03/08/2023			03/08/2023 15:12	Samantha L Bates	2392734, 2392735
EPA 180.1 Rev. 2.0	03/08/2023			03/08/2023 14:11	Anna M. Plaviak	2392733, 2392734
	03/08/2023			03/08/2023 14:44	Anna M. Plaviak	2392735
EPA 200.7 Rev. 4.4	03/08/2023	03/09/2023 12:25	George D Taylor	03/22/2023 18:28	Chase Roberts	2392751
	03/08/2023	03/09/2023 12:25	George D Taylor	03/22/2023 19:03	Chase Roberts	2392752
EPA 200.8 Rev. 5.4	03/08/2023	03/09/2023 12:25	George D Taylor	03/22/2023 19:11	Chase Roberts	2392753
	03/08/2023	03/09/2023 12:25	George D Taylor	03/10/2023 15:20	Conrad Hartmann	2392751
	03/08/2023	03/09/2023 12:25	George D Taylor	03/10/2023 16:22	Conrad Hartmann	2392752
	03/08/2023	03/09/2023 12:25	George D Taylor	03/10/2023 16:31	Conrad Hartmann	2392753
	03/08/2023	03/16/2023 11:05	George D Taylor	03/17/2023 15:54	Conrad Hartmann	2392753
EPA 300.0 Rev. 2.1	03/08/2023			03/21/2023 12:18	Anna M. Plaviak	2392734
	03/08/2023			03/21/2023 12:49	Anna M. Plaviak	2392735
	03/08/2023			03/21/2023 14:49	Anna M. Plaviak	2392733
EPA 350.1 Rev. 2.0	03/08/2023			03/09/2023 12:49	Khloe J Berg	2392736
	03/08/2023			03/09/2023 12:50	Khloe J Berg	2392737
	03/08/2023			03/09/2023 14:24	Khloe J Berg	2392738
EPA 351.2 Rev. 2.0	03/08/2023	03/10/2023 12:15	Simonne.V. Calhoun	03/14/2023 17:16	Judith K. Clark	2392736
	03/08/2023	03/10/2023 12:15	Simonne.V. Calhoun	03/14/2023 17:18	Judith K. Clark	2392737
	03/08/2023	03/28/2023 16:17	Simonne.V. Calhoun	03/29/2023 13:44	Judith K. Clark	2392738
EPA 353.2 Rev. 2.0	03/08/2023			03/14/2023 09:39	Beverly Y. Sanders	2392736
	03/08/2023			03/14/2023 09:46	Beverly Y. Sanders	2392737
	03/08/2023			03/14/2023 09:47	Beverly Y. Sanders	2392738
EPA 365.1 Rev. 2.0	03/08/2023	03/13/2023 16:23	Adam P Silver	03/15/2023 10:58	James L Waggeberby	2392737
	03/08/2023	03/13/2023 16:23	Adam P Silver	03/15/2023 10:59	James L Waggeberby	2392738
	03/08/2023	03/13/2023 16:23	Adam P Silver	03/17/2023 11:08	James L Waggeberby	2392736
SM 2320 B-2011	03/08/2023			03/11/2023 10:25	Dale L. Simmons	2392733
	03/08/2023			03/11/2023 10:38	Dale L. Simmons	2392734
	03/08/2023			03/11/2023 10:51	Dale L. Simmons	2392735
SM 2340 B-2011	03/08/2023			03/22/2023 18:28	Chase Roberts	2392751
	03/08/2023			03/22/2023 19:03	Chase Roberts	2392752
	03/08/2023			03/22/2023 19:11	Chase Roberts	2392753
SM 2540 C-2015	03/08/2023			03/13/2023 16:21	Yijie Li	2392733, 2392734, 2392735
SM 2540 D-2015	03/08/2023			03/13/2023 16:21	Yijie Li	2392733, 2392734, 2392735
SM 4500-F- C-2011	03/08/2023			03/14/2023 23:39	Dale L. Simmons	2392733
	03/08/2023			03/14/2023 23:44	Dale L. Simmons	2392734
	03/08/2023			03/16/2023 21:20	Dale L. Simmons	2392735
SM 5310 B-2011	03/08/2023			03/10/2023 23:40	Elise M. Gillis	2392736
	03/08/2023			03/10/2023 23:55	Elise M. Gillis	2392737
	03/08/2023			03/11/2023 00:11	Elise M. Gillis	2392738