

Chemical Analysis Report

CEN-DIST-2023-05-11-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

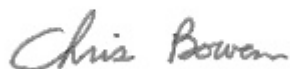
Event Description: **BMAP - Sweetwater, Salt and Long**
Request ID: **RQ-2023-05-08-27**
Customer: **CEN-DIST**
Project ID: **BMAP**

Send Reports to:
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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 31-MAY-2023 09:09



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, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: LONG BEACH AT 07 MI DS OF CR 13

Collection Date/Time: 05/10/2023 10:48

Field ID: G2CE0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408842	DEP SOP: NU-094-1	Color (true)	39		PCU	P429777	
	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P429780	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P430017	
		Sulfate	45		mg SO4/L	P430020	
	SM 2320 B-2011	Total Alkalinity	88		mg CaCO3/L	P430117	
	SM 2540 C-2015	TDS	220		mg/L	P430193	
	SM 2540 D-2015	TSS	2	I	mg/L	P429882	
	SM 4500-F- C-2011	Fluoride	0.10		mg F/L	P430285	
2408843	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P430076	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P430086	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.084		mg N/L	P430279	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P429858	
	SM 5310 B-2011	Organic Carbon	9.5		mg C/L	P429896	
2408844	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.082		mg P/L	P429769	
2408852	EPA 8321B	Sucralose	0.13		ug/L	P429733	
2408853	EPA 200.7 Rev. 4.4	Calcium	52.5		mg/L	P429828	
		Iron	280		ug/L	P429828	
		Magnesium	2.46		mg/L	P429828	
		Potassium	1.2		mg/L	P429828	
		Sodium	11.7		mg/L	P429828	
		Strontium	253		ug/L	P429828	
		Tin	3.0	U	ug/L	P429828	
		Titanium	1.6	I	ug/L	P429828	
		Vanadium	2.3	I	ug/L	P429828	
		Zinc	5.0	U	ug/L	P429828	
	EPA 200.8 Rev. 5.4	Aluminum	428		ug/L	P429828	
		Antimony	0.32		ug/L	P429828	
		Arsenic	1.16		ug/L	P429828	
		Barium	27.4		ug/L	P429828	
		Beryllium	0.017	I	ug/L	P429828	
		Boron	25.0		ug/L	P429828	
		Cadmium	0.020	U	ug/L	P429828	
		Chromium	0.66	I	ug/L	P429828	
		Cobalt	0.121		ug/L	P429828	
		Copper	0.73	I	ug/L	P430037	
		Lead	0.78		ug/L	P429828	
		Manganese	7.90		ug/L	P429828	
		Molybdenum	0.83		ug/L	P429828	
		Nickel	0.50	U	ug/L	P429828	
		Selenium	0.71	I	ug/L	P429828	
		Silver	0.010	U	ug/L	P429828	
		Thallium	0.10	U	ug/L	P429828	
	SM 2340 B-2011	Hardness	141		mg/L	P429828	

Field ID: G2CE0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: SALT CREEK AT PACKARD AVE

Collection Date/Time: 05/10/2023 12:15

Field ID: G2CE0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408836	DEP SOP: NU-094-1	Color (true)	58		PCU	P429777	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P429780	
	EPA 300.0 Rev. 2.1	Chloride	1.3E+03		mg Cl/L	P430017	
		Sulfate	200		mg SO4/L	P430020	
	SM 2320 B-2011	Total Alkalinity	126		mg CaCO3/L	P430117	
	SM 2540 C-2015	TDS	2.37E+03		mg/L	P430193	
	SM 2540 D-2015	TSS	3	I	mg/L	P429882	
2408838	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P430285	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P430074	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P430087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P429986	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P429858	
2408840	SM 5310 B-2011	Organic Carbon	8.0		mg C/L	P429896	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P429769	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: SWEETWATER CREEK AT FLORIDA AVENUE Collection Date/Time: 05/10/2023 12:52

Field ID: G2CE0123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2408837	DEP SOP: NU-094-1	Color (true)	46	A	PCU	P429777	
	EPA 180.1 Rev. 2.0	Turbidity	6.7		NTU	P429780	
	EPA 300.0 Rev. 2.1	Chloride	190		mg Cl/L	P430017	
		Sulfate	30		mg SO4/L	P430020	
	SM 2320 B-2011	Total Alkalinity	139		mg CaCO3/L	P430117	
	SM 2540 C-2015	TDS	530		mg/L	P430193	
	SM 2540 D-2015	TSS	12		mg/L	P429882	
	SM 4500-F- C-2011	Fluoride	0.39		mg F/L	P430285	
2408839	EPA 350.1 Rev. 2.0	Ammonia-N	0.054		mg N/L	P430076	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P430087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P429986	
	EPA 365.1 Rev. 2.0	Total-P	0.46		mg P/L	P429858	
	SM 5310 B-2011	Organic Carbon	7.4		mg C/L	P429896	
2408841	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.37		mg P/L	P429769	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P429777

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429780

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429828

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: P429828

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
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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Component	Result	Code	Units
Copper	0.40	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430020

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430076

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

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

Reference Method: EPA 8321B
Batch ID: P429733

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P430117

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

Reference Method: SM 2540 C-2015
Batch ID: P430193

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P429882

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P429896

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: P429777

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.9		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429780

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	101		P	85 - 115
Magnesium	99.1		P	85 - 115
Potassium	99.7		P	85 - 115
Sodium	94.4		P	85 - 115
Strontium	98.0		P	85 - 115
Tin	99.4		P	85 - 115
Titanium	99.6		P	85 - 115
Vanadium	98.7		P	85 - 115
Zinc	98.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	100		P	85 - 115
Barium	105		P	85 - 115
Beryllium	93.5		P	85 - 115
Boron	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	96.7		P	85 - 115
Cobalt	102		P	85 - 115
Lead	103		P	85 - 115
Manganese	97.7		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	98.1		P	85 - 115
Selenium	100		P	85 - 115
Silver	106		P	85 - 115
Thallium	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	99.5		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430020

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

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

Reference Method: EPA 8321B
Batch ID: P429733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	96.1		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P430117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P430193

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.1		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P429882

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P429828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407927	Calcium	100		P	80 - 120
2407927	Iron	96.2	97.9	P/P	80 - 120
2407927	Magnesium	96.5	97.3	P/P	80 - 120
2407927	Potassium	98.8	98.8	P/P	80 - 120
2407927	Sodium	94.9		P	80 - 120
2407927	Strontium	98.0	98.0	P/P	80 - 120
2407927	Tin	96.8	99.2	P/P	80 - 120
2407927	Titanium	95.0	97.2	P/P	80 - 120
2407927	Vanadium	99.4	101	P/P	80 - 120
2407927	Zinc	96.4	97.8	P/P	80 - 120
2408660	Calcium	97.7		P	75 - 125
2408660	Iron	96.9		P	75 - 125
2408660	Magnesium	97.8		P	75 - 125
2408660	Potassium	98.7		P	75 - 125
2408660	Sodium	94.5		P	75 - 125
2408660	Strontium	98.6		P	75 - 125
2408660	Tin	95.8		P	75 - 125
2408660	Titanium	98.5		P	75 - 125
2408660	Vanadium	98.2		P	75 - 125
2408660	Zinc	95.5		P	75 - 125

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P429828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2407927	Aluminum	96.1	96.8	P/P	80 - 120
2407927	Antimony	100	99.7	P/P	80 - 120
2407927	Arsenic	97.9	98.8	P/P	80 - 120
2407927	Barium	103	103	P/P	80 - 120
2407927	Beryllium	94.2	94.6	P/P	80 - 120
2407927	Boron	105	105	P/P	80 - 120
2407927	Cadmium	103	102	P/P	80 - 120
2407927	Chromium	94.7	95.3	P/P	80 - 120
2407927	Cobalt	99.8	101	P/P	80 - 120
2407927	Lead	104	104	P/P	80 - 120
2407927	Manganese	98.0	102	P/P	80 - 120
2407927	Molybdenum	98.7	98.7	P/P	80 - 120
2407927	Nickel	95.3	95.9	P/P	80 - 120
2407927	Selenium	97.7	99.3	P/P	80 - 120
2407927	Silver	105	105	P/P	80 - 120
2407927	Thallium	99.6	103	P/P	80 - 120
2408660	Aluminum	100		P	80 - 120
2408660	Antimony	102		P	80 - 120
2408660	Arsenic	101		P	80 - 120
2408660	Barium	104		P	80 - 120
2408660	Beryllium	92.8		P	80 - 120
2408660	Boron	106		P	80 - 120
2408660	Cadmium	103		P	80 - 120
2408660	Chromium	97.5		P	80 - 120
2408660	Cobalt	101		P	80 - 120
2408660	Lead	105		P	80 - 120
2408660	Manganese	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408660	Molybdenum	101		P	80 - 120
2408660	Nickel	95.9		P	80 - 120
2408660	Selenium	99.7		P	80 - 120
2408660	Silver	106		P	80 - 120
2408660	Thallium	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408817	Copper	99.6		P	80 - 120
2410475	Copper	96.4	96.2	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408605	Chloride	102		P	90 - 110
2408888	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430020

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408605	Sulfate	100		P	90 - 110
2408888	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408662	Ammonia-N	96.0	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408843	Ammonia-N	96.2	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408814	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409211	Kjeldahl Nitrogen	98.1	97.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408787	NO2NO3-N	97.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409240	NO2NO3-N	99.2	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408804	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408936	O-Phosphate-P	100	99.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P429733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408587	Sucralose	81.1	89.4	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P430285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408903	Fluoride	102	103	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P429896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408608	Organic Carbon	97.6	97.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P429777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408837	Color (true)	1.40	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P429780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408796	Turbidity	0.494	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P429828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407927	Calcium	0.530	Spike	P	0 - 20
2407927	Iron	1.24	Spike	P	0 - 20
2407927	Magnesium	0.516	Spike	P	0 - 20
2407927	Potassium	0.0146	Spike	P	0 - 20
2407927	Sodium	0.505	Spike	P	0 - 20
2407927	Strontium	0.00725	Spike	P	0 - 20
2407927	Tin	2.44	Spike	P	0 - 20
2407927	Titanium	2.08	Spike	P	0 - 20
2407927	Vanadium	1.97	Spike	P	0 - 20
2407927	Zinc	1.40	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P429828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2407927	Aluminum	0.453	Spike	P	0 - 20
2407927	Antimony	0.708	Spike	P	0 - 20
2407927	Arsenic	0.884	Spike	P	0 - 20
2407927	Barium	0.326	Spike	P	0 - 20
2407927	Beryllium	0.401	Spike	P	0 - 20
2407927	Boron	0.366	Spike	P	0 - 20
2407927	Cadmium	0.926	Spike	P	0 - 20
2407927	Chromium	0.578	Spike	P	0 - 20
2407927	Cobalt	1.37	Spike	P	0 - 20
2407927	Lead	0.289	Spike	P	0 - 20
2407927	Manganese	1.50	Spike	P	0 - 20
2407927	Molybdenum	0.0192	Spike	P	0 - 20
2407927	Nickel	0.662	Spike	P	0 - 20
2407927	Selenium	1.65	Spike	P	0 - 20
2407927	Silver	0.406	Spike	P	0 - 20
2407927	Thallium	3.52	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2410475	Copper	0.255	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408605	Chloride	0.662	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408662	Ammonia-N	0.876	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408843	Ammonia-N	1.68	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430086

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408814	Kjeldahl Nitrogen	0.844	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409211	Kjeldahl Nitrogen	0.206	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408787	NO2NO3-N	0.242	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409240	NO2NO3-N	1.46	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P429858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408804	Total-P	0.342	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P429769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408936	O-Phosphate-P	0.500	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P429733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408587	Sucralose	8.35	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P430117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408651	Total Alkalinity	1.29	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P430193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409028	TDS	0.560	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P430285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408903	Fluoride	1.04	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011

Batch ID: P429896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408608	Organic Carbon	0.412	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2408852
Field Sample ID: G2CE0036

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Endothall-d6	92.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119111

Included Lab Sample IDs: 2408840, 2408841, 2408844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.2	P/P	90 - 110
O-Phosphate-P	98.2	98.1	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A119113

Included Lab Sample IDs: 2408836, 2408837, 2408842

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	99.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119114

Included Lab Sample IDs: 2408836, 2408837, 2408842

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

Reference Method: SM 5310 B-2011

Run ID: A119185

Included Lab Sample IDs: 2408838, 2408839, 2408843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119188

Included Lab Sample IDs: 2408838, 2408839, 2408843

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

Reference Method: EPA 8321B

Run ID: A119191

Included Lab Sample IDs: 2408852

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	115	92.7	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119202

Included Lab Sample IDs: 2408853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.5	100	P/P	90 - 110
Antimony	101	99.2	P/P	90 - 110
Arsenic	96.9	98.1	P/P	90 - 110
Barium	101	98.4	P/P	90 - 110
Beryllium	94.4	96.0	P/P	90 - 110
Boron	96.7	99.6	P/P	90 - 110
Cadmium	101	99.6	P/P	90 - 110
Chromium	96.0	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119202

Included Lab Sample IDs: 2408853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	98.6	101	P/P	90 - 110
Lead	102	101	P/P	90 - 110
Manganese	96.5	100	P/P	90 - 110
Molybdenum	98.2	98.3	P/P	90 - 110
Nickel	95.4	96.8	P/P	90 - 110
Selenium	99.1	101	P/P	90 - 110
Silver	103	102	P/P	90 - 110
Thallium	104	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119211

Included Lab Sample IDs: 2408836, 2408837, 2408842

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	99.7	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119221

Included Lab Sample IDs: 2408838, 2408839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	102	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119259

Included Lab Sample IDs: 2408838, 2408839, 2408843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	96.4	P/P	90 - 110
Ammonia-N	96.4	97.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A119276

Included Lab Sample IDs: 2408836, 2408837, 2408842

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.7	99.0	P/P	90 - 110
Total Alkalinity	98.1	93.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119301

Included Lab Sample IDs: 2408853

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119322

Included Lab Sample IDs: 2408843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.5	93.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119336

Included Lab Sample IDs: 2408838, 2408839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	90.5	95.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119358

Included Lab Sample IDs: 2408853

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.9	96.7	P/P	90 - 110
Iron	95.7	97.3	P/P	90 - 110
Magnesium	94.1	95.4	P/P	90 - 110
Potassium	95.1	96.8	P/P	90 - 110
Sodium	91.8	92.4	P/P	90 - 110
Strontium	96.7	94.3	P/P	90 - 110
Tin	95.5	94.3	P/P	90 - 110
Titanium	96.9	95.9	P/P	90 - 110
Vanadium	96.0	94.6	P/P	90 - 110
Zinc	93.5	92.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A119359

Included Lab Sample IDs: 2408836, 2408837, 2408842

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119360

Included Lab Sample IDs: 2408843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	102	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				
DEP SOP: NU-094-1	Color (true)	97.9				1.40	
EPA 180.1 Rev. 2.0	Turbidity	99.7				0.494	
EPA 200.7 Rev. 4.4	Calcium	100	100	97.7			0.530
	Iron	101	96.2	97.9	96.9		1.24
	Magnesium	99.1	96.5	97.3	97.8		0.516
	Potassium	99.7	98.8	98.8	98.7		0.0146
	Sodium	94.4	94.9	94.5			0.505
	Strontium	98.0	98.0	98.0	98.6		0.0072
	Tin	99.4	96.8	99.2	95.8		2.44
	Titanium	99.6	98.5	95.0	97.2		2.08
	Vanadium	98.7	98.2	99.4	101		1.97
	Zinc	98.0	95.5	96.4	97.8		1.40
EPA 200.8 Rev. 5.4	Aluminum	101	96.1	96.8	100		0.453
	Antimony	103	100	99.7	102		0.708
	Arsenic	100	97.9	98.8	101		0.884
	Barium	105	103	103	104		0.326
	Beryllium	93.5	94.2	94.6	92.8		0.401
	Boron	105	105	105	106		0.366
	Cadmium	102	103	102	103		0.926
	Chromium	96.7	94.7	95.3	97.5		0.578
	Cobalt	102	99.8	101	101		1.37
	Copper	99.5	96.4	96.2	99.6		0.255
	Lead	103	104	104	105		0.289
	Manganese	97.7	98.0	102	102		1.50
	Molybdenum	100	98.7	98.7	101		0.0192
	Nickel	98.1	95.3	95.9	95.9		0.662
	Selenium	100	97.7	99.3	99.7		1.65
	Silver	106	105	105	106		0.406
	Thallium	98.4	99.6	103	103		3.52
EPA 300.0 Rev. 2.1	Chloride	101	102	102		0.662	
	Sulfate	100	100	101			
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	96.0	97.4			0.876
	Ammonia-N	96.2	96.2	98.4			1.68
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.5	101	102			0.844
	Kjeldahl Nitrogen	94.2	98.1	97.7			0.206
EPA 353.2 Rev. 2.0	NO2NO3-N	101	97.0				0.242
	NO2NO3-N	103	99.2	101			1.46
EPA 365.1 Rev. 2.0	Total-P	101	100	101			0.342
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	100	99.7			0.500
EPA 8321B	Sucralose	96.1	81.1	89.4			8.35
SM 2320 B-2011	Total Alkalinity	100				1.29	
SM 2540 C-2015	TDS	97.1				0.560	
SM 2540 D-2015	TSS	94.3					
SM 4500-F- C-2011	Fluoride	102	102	103			1.04
SM 5310 B-2011	Organic Carbon	96.7	97.6	97.0			0.412

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2408836, 2408837, 2408842
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2408836, 2408837, 2408842
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2408853

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	2408853
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2408836, 2408837, 2408842
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2408836, 2408837, 2408842
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2408838, 2408839, 2408843
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2408838, 2408839, 2408843
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2408838, 2408839, 2408843
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2408838, 2408839, 2408843
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2408840, 2408841, 2408844
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2408852
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2408836, 2408837, 2408842
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2408853
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2408836, 2408837, 2408842
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2408836, 2408837, 2408842
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2408836, 2408837, 2408842
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2408838, 2408839, 2408843

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	05/11/2023			05/11/2023 14:16	Samantha L Bates	2408836
	05/11/2023			05/11/2023 14:17	Samantha L Bates	2408837
	05/11/2023			05/11/2023 14:18	Samantha L Bates	2408842
EPA 180.1 Rev. 2.0	05/11/2023			05/11/2023 13:59	Anna M. Plaviak	2408836, 2408837
	05/11/2023			05/11/2023 14:02	Anna M. Plaviak	2408842
EPA 200.7 Rev. 4.4	05/11/2023	05/12/2023 12:40	George D Taylor	05/23/2023 18:30	McKinley C Carter	2408853
EPA 200.8 Rev. 5.4	05/11/2023	05/12/2023 12:40	George D Taylor	05/16/2023 19:20	Conrad Hartmann	2408853
	05/11/2023	05/18/2023 10:55	George D Taylor	05/19/2023 22:43	Conrad Hartmann	2408853
EPA 300.0 Rev. 2.1	05/11/2023			05/17/2023 16:13	James L Waggeberby	2408836
	05/11/2023			05/17/2023 16:28	James L Waggeberby	2408837
	05/11/2023			05/17/2023 16:43	James L Waggeberby	2408842
EPA 350.1 Rev. 2.0	05/11/2023			05/18/2023 14:10	Ping Hua	2408838
	05/11/2023			05/18/2023 14:49	Ping Hua	2408843
	05/11/2023			05/18/2023 14:53	Ping Hua	2408839
EPA 351.2 Rev. 2.0	05/11/2023	05/19/2023 08:44	Samantha L Bates	05/22/2023 16:36	Samantha L Bates	2408843
	05/11/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:29	Samantha L Bates	2408838
	05/11/2023	05/19/2023 08:44	Samantha L Bates	05/23/2023 10:30	Samantha L Bates	2408839
EPA 353.2 Rev. 2.0	05/11/2023			05/17/2023 12:04	Beverly Y. Sanders	2408838
	05/11/2023			05/17/2023 12:22	Beverly Y. Sanders	2408839
	05/11/2023			05/19/2023 10:26	Anna M. Plaviak	2408843
EPA 365.1 Rev. 2.0	05/11/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 09:51	James L Waggeberby	2408838, 2408839
	05/11/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 09:52	James L Waggeberby	2408843
EPA 365.1 Rev. 2.0 dissolved	05/11/2023			05/11/2023 14:31	Elise M. Gillis	2408844
	05/11/2023			05/11/2023 14:40	Elise M. Gillis	2408840
	05/11/2023			05/11/2023 14:41	Elise M. Gillis	2408841
EPA 8321B	05/11/2023	05/12/2023 12:00	Manjita Shrestha	05/13/2023 21:15	Manjita Shrestha	2408852
SM 2320 B-2011	05/11/2023			05/19/2023 03:06	Dale L. Simmons	2408837
	05/11/2023			05/19/2023 03:42	Dale L. Simmons	2408842
	05/11/2023			05/19/2023 04:27	Dale L. Simmons	2408836
SM 2340 B-2011	05/11/2023			05/23/2023 18:30	McKinley C Carter	2408853
SM 2540 C-2015	05/11/2023			05/12/2023 13:06	Dana G. Hughes	2408836, 2408837, 2408842
SM 2540 D-2015	05/11/2023			05/12/2023 13:06	Dana G. Hughes	2408836, 2408837, 2408842
SM 4500-F- C-2011	05/11/2023			05/24/2023 01:59	Dale L. Simmons	2408837
	05/11/2023			05/24/2023 02:04	Dale L. Simmons	2408842
	05/11/2023			05/24/2023 03:17	Dale L. Simmons	2408836
SM 5310 B-2011	05/11/2023			05/15/2023 21:03	Elise M. Gillis	2408838
	05/11/2023			05/15/2023 21:19	Elise M. Gillis	2408839
	05/11/2023			05/15/2023 21:32	Elise M. Gillis	2408843