

Chemical Analysis Report

WQAP-2022-08-19-02

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

Event Description: **Algae Bloom Response-as needed**
Request ID: **RQ-2022-08-15-20**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 02-SEP-2022 15:19

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored 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: 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: LSJR @ St Vincent riverside

Collection Date/Time: 08/18/2022 10:40

Field ID: NEHAB0033

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350842	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P418339	
		Cylindrospermopsin	0.10	U	ug/L	P418338	
		Desmethyl microcystin LR	0.25	U	ug/L	P418338	
		Microcystin HILR	0.25	U	ug/L	P418338	
		Microcystin HtyR	0.25	U	ug/L	P418338	
		Microcystin LA	0.10	U	ug/L	P418338	
		Microcystin LF	0.10	U	ug/L	P418338	
		Microcystin LR	0.25	U	ug/L	P418338	
		Microcystin LW	0.25	U	ug/L	P418338	
		Microcystin LY	0.10	U	ug/L	P418338	
		Microcystin RR	0.10	U	ug/L	P418338	
		Microcystin WR	0.50	U	ug/L	P418338	
		Neosaxitoxin	0.50	U	ug/L	P418339	
		Microcystin YR	0.25	U	ug/L	P418338	
		Saxitoxin	0.50	U	ug/L	P418339	
		Nodularin-R	0.10	U	ug/L	P418338	
2350844	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P418692	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P418645	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P418598	
	EPA 365.1 Rev. 2.0	Total-P	0.089		mg P/L	P418517	
2350846	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.057		mg P/L	P418397	

Sample Location: Oretga River @ Morven Canal

Collection Date/Time: 08/18/2022 10:00

Field ID: NEHAB0090

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350843	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P418339	
		Cylindrospermopsin	0.10	U	ug/L	P418338	
		Desmethyl microcystin LR	0.25	U	ug/L	P418338	
		Microcystin HILR	0.25	U	ug/L	P418338	
		Microcystin HtyR	0.25	U	ug/L	P418338	
		Microcystin LA	0.10	U	ug/L	P418338	
		Microcystin LF	0.10	U	ug/L	P418338	
		Microcystin LR	0.25	U	ug/L	P418338	
		Microcystin LW	0.25	U	ug/L	P418338	
		Microcystin LY	0.10	U	ug/L	P418338	
		Microcystin RR	0.10	U	ug/L	P418338	
		Microcystin WR	0.50	U	ug/L	P418338	
		Neosaxitoxin	0.50	U	ug/L	P418339	
		Microcystin YR	0.25	U	ug/L	P418338	
		Saxitoxin	0.50	U	ug/L	P418339	
		Nodularin-R	0.10	U	ug/L	P418338	
2350845	EPA 350.1 Rev. 2.0	Ammonia-N	0.14		mg N/L	P418692	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P418645	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P418598	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P418517	
2350847	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P418397	

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418692

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418645

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418598

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418517

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418397

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

Reference Method: EPA 8321B
Batch ID: P418338

Component	Result	Code	Units
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin H1LR	0.25	U	ug/L
Microcystin HtyR	0.25	U	ug/L
Microcystin LA	0.10	U	ug/L
Microcystin LF	0.10	U	ug/L
Microcystin LR	0.25	U	ug/L
Microcystin LW	0.25	U	ug/L
Microcystin LY	0.10	U	ug/L
Microcystin RR	0.10	U	ug/L
Microcystin WR	0.50	U	ug/L
Microcystin YR	0.25	U	ug/L
Nodularin-R	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P418339

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Neosaxitoxin	0.50	U	ug/L
Saxitoxin	0.50	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418692

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418645

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418598

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418517

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418397

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

Reference Method: EPA 8321B
Batch ID: P418338

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	107		P	40 - 150
Desmethyl microcystin LR	86.0		P	40 - 150
Microcystin H1R	88.2		P	40 - 150
Microcystin HtyR	89.5		P	40 - 150
Microcystin LA	104		P	40 - 150
Microcystin LF	122		P	40 - 150
Microcystin LR	102		P	40 - 150
Microcystin LW	90.1		P	40 - 150
Microcystin LY	98.1		P	40 - 150
Microcystin RR	92.5		P	40 - 150
Microcystin WR	91.9		P	40 - 150
Microcystin YR	89.1		P	40 - 150
Nodularin-R	97.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P418339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	123		P	40 - 150
Neosaxitoxin	132		P	40 - 150
Saxitoxin	121		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350833	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351352	Kjeldahl Nitrogen	110	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418598

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350844	NO2NO3-N	97.8	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350866	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350950	O-Phosphate-P	97.2	100	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P418338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350733	Cylindrospermopsin	98.2	96.8	P/P	40 - 150
2350733	Desmethyl microcystin LR	96.7	95.2	P/P	40 - 150
2350733	Microcystin HiLR	95.0	102	P/P	40 - 150
2350733	Microcystin HtyR	104	106	P/P	40 - 150
2350733	Microcystin LA	95.6	99.8	P/P	40 - 150
2350733	Microcystin LF	132	120	P/P	40 - 150
2350733	Microcystin LR	113	108	P/P	40 - 150
2350733	Microcystin LW	104	98.9	P/P	40 - 150
2350733	Microcystin LY	99.7	104	P/P	40 - 150
2350733	Microcystin RR	96.0	97.2	P/P	40 - 150
2350733	Microcystin WR	102	94.8	P/P	40 - 150
2350733	Microcystin YR	96.1	107	P/P	40 - 150
2350733	Nodularin-R	106	106	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P418339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350733	Anatoxin-a	142	145	P/P	40 - 150
2350733	Neosaxitoxin	108	104	P/P	40 - 150
2350733	Saxitoxin	114	112	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P418692

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350833	Ammonia-N	1.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P418645

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351352	Kjeldahl Nitrogen	3.65	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P418598

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350844	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418517

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350866	Total-P	0.724	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P418397

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350950	O-Phosphate-P	3.08	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P418338

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350733	Cylindrospermopsin	1.35	Spike	P	0 - 30
2350733	Desmethyl microcystin LR	1.55	Spike	P	0 - 30
2350733	Microcystin H1LR	6.91	Spike	P	0 - 30
2350733	Microcystin HtyR	2.10	Spike	P	0 - 30
2350733	Microcystin LA	4.21	Spike	P	0 - 30
2350733	Microcystin LF	10.1	Spike	P	0 - 30
2350733	Microcystin LR	4.19	Spike	P	0 - 30
2350733	Microcystin LW	4.98	Spike	P	0 - 30
2350733	Microcystin LY	3.71	Spike	P	0 - 30
2350733	Microcystin RR	1.29	Spike	P	0 - 30
2350733	Microcystin WR	7.29	Spike	P	0 - 30
2350733	Microcystin YR	11.1	Spike	P	0 - 30
2350733	Nodularin-R	0.500	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P418339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350733	Anatoxin-a	2.21	Spike	P	0 - 30
2350733	Neosaxitoxin	3.78	Spike	P	0 - 30
2350733	Saxitoxin	1.56	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2350842
Field Sample ID: NEHAB0033

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	68.1	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	54.0	P	30 - 160

Lab Sample ID: 2350843
Field Sample ID: NEHAB0090

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	81.2	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	83.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A114215

Included Lab Sample IDs: 2350846, 2350847

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

Reference Method: EPA 8321B

Run ID: A114230

Included Lab Sample IDs: 2350842, 2350843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	107	97.8	P/P	50 - 160
Desmethyl microcystin LR	75.5	76.6	P/P	50 - 160
Microcystin HtR	80.2	78.1	P/P	50 - 160
Microcystin HtyR	76.0	79.5	P/P	50 - 160
Microcystin LA	94.2	97.5	P/P	50 - 160
Microcystin LF	82.3	91.2	P/P	50 - 160
Microcystin LR	86.0	88.5	P/P	50 - 160
Microcystin LW	72.0	82.0	P/P	50 - 160
Microcystin LY	84.2	79.7	P/P	50 - 160
Microcystin RR	74.6	74.6	P/P	50 - 160
Microcystin WR	74.7	72.0	P/P	50 - 160
Microcystin YR	78.2	76.5	P/P	50 - 160
Nodularin-R	94.5	92.9	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A114233

Included Lab Sample IDs: 2350842, 2350843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	140	128	P/P	50 - 160
Neosaxitoxin	152	144	P/P	50 - 160
Saxitoxin	135	132	P/P	50 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114297

Included Lab Sample IDs: 2350844, 2350845

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114342

Included Lab Sample IDs: 2350845

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114346

Included Lab Sample IDs: 2350844, 2350845

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	98.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114348

Included Lab Sample IDs: 2350844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114393

Included Lab Sample IDs: 2350844, 2350845

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	97.2	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 LCS	SMP	MS
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	104	105			1.05
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	110	103			3.65
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.5	97.8	97.4			0.491
EPA 365.1 Rev. 2.0	Total-P	106	103	102			0.724
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	97.2	100			3.08
EPA 8321B	Anatoxin-a	123	142	145			2.21
	Cylindrospermopsin	107	98.2	96.8			1.35
	Desmethyl microcystin LR	86.0	96.7	95.2			1.55
	Microcystin HiLR	88.2	95.0	102			6.91
	Microcystin HtyR	89.5	104	106			2.10
	Microcystin LA	104	95.6	99.8			4.21
	Microcystin LF	122	132	120			10.1
	Microcystin LR	102	113	108			4.19
	Microcystin LW	90.1	104	98.9			4.98
	Microcystin LY	98.1	99.7	104			3.71
	Microcystin RR	92.5	96.0	97.2			1.29
	Microcystin WR	91.9	102	94.8			7.29
	Microcystin YR	89.1	96.1	107			11.1
	Neosaxitoxin	132	108	104			3.78
	Nodularin-R	97.9	106	106			0.500
	Saxitoxin	121	114	112			1.56

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2350844, 2350845
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2350844, 2350845
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2350844, 2350845
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2350844, 2350845
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2350846, 2350847
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2350842, 2350843
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2350842, 2350843

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	08/19/2022			08/25/2022 14:00	Ping Hua	2350844
	08/19/2022			08/25/2022 14:02	Ping Hua	2350845
EPA 351.2 Rev. 2.0	08/19/2022	08/25/2022 14:20	Alexandra J Mattheus	08/26/2022 14:12	Alexandra J Mattheus	2350844
	08/19/2022	08/25/2022 14:20	Alexandra J Mattheus	08/26/2022 14:13	Alexandra J Mattheus	2350845
EPA 353.2 Rev. 2.0	08/19/2022			08/24/2022 13:29	Beverly Y. Sanders	2350844
	08/19/2022			08/24/2022 13:35	Beverly Y. Sanders	2350845
EPA 365.1 Rev. 2.0	08/19/2022	08/24/2022 15:20	Simonne.V. Calhoun	08/25/2022 11:32	James L Waggerby	2350845
	08/19/2022	08/24/2022 15:20	Simonne.V. Calhoun	08/25/2022 15:17	James L Waggerby	2350844
EPA 365.1 Rev. 2.0 dissolved	08/19/2022			08/19/2022 13:39	Elise M. Gillis	2350846
	08/19/2022			08/19/2022 13:40	Elise M. Gillis	2350847
EPA 8321B	08/19/2022	08/19/2022 11:59	Manjita Shrestha	08/19/2022 17:00	Manjita Shrestha	2350842
	08/19/2022	08/19/2022 11:59	Manjita Shrestha	08/19/2022 17:17	Manjita Shrestha	2350843
	08/19/2022	08/19/2022 12:00	Manjita Shrestha	08/19/2022 21:22	Manjita Shrestha	2350842
	08/19/2022	08/19/2022 12:00	Manjita Shrestha	08/19/2022 21:36	Manjita Shrestha	2350843