

Chemical Analysis Report

WQAP-2022-12-20-04

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

Event Description: **Algal Bloom Response - CEROC**
Request ID: **RQ-2022-12-12-36**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
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Date Certified: 11-JAN-2023 12:06



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: Little Lake Conway - Near SE Shore

Collection Date/Time: 12/19/2022 14:23

Field ID: HABCE0156_LittleLakeConway

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2376560	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P423757	
		Cylindrospermopsin	0.10	U	ug/L	P423756	
		Desmethyl microcystin LR	0.25	U	ug/L	P423756	
		Microcystin HILR	0.25	U	ug/L	P423756	
		Microcystin HtyR	0.25	U	ug/L	P423756	
		Microcystin LA	0.10	U	ug/L	P423756	
		Microcystin LF	0.10	U	ug/L	P423756	
		Microcystin LR	0.25	U	ug/L	P423756	
		Microcystin LW	0.25	U	ug/L	P423756	
		Microcystin LY	0.10	U	ug/L	P423756	
		Microcystin RR	0.10	U	ug/L	P423756	
		Microcystin WR	0.50	U	ug/L	P423756	
		Neosaxitoxin	0.50	U	ug/L	P423757	
		Microcystin YR	0.25	U	ug/L	P423756	
		Saxitoxin	0.50	U	ug/L	P423757	
		Nodularin-R	0.10	U	ug/L	P423756	
2376562	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P424301	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P423874	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P423900	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P424107	
2376564	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P423773	

Sample Location: Lake Minneola - Waterfront park boat ramp

Collection Date/Time: 12/19/2022 11:26

Field ID: HABCE0157_LakeMinneola2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2376561	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P423757	
		Cylindrospermopsin	0.10	U	ug/L	P423756	
		Desmethyl microcystin LR	0.25	U	ug/L	P423756	
		Microcystin HILR	0.25	U	ug/L	P423756	
		Microcystin HtyR	0.25	U	ug/L	P423756	
		Microcystin LA	0.10	U	ug/L	P423756	
		Microcystin LF	0.10	U	ug/L	P423756	
		Microcystin LR	0.25	U	ug/L	P423756	
		Microcystin LW	0.25	U	ug/L	P423756	
		Microcystin LY	0.10	U	ug/L	P423756	
		Microcystin RR	0.10	U	ug/L	P423756	
		Microcystin WR	0.50	U	ug/L	P423756	
		Neosaxitoxin	0.50	U	ug/L	P423757	
		Microcystin YR	0.25	U	ug/L	P423756	
		Saxitoxin	0.50	U	ug/L	P423757	
		Nodularin-R	0.10	U	ug/L	P423756	
2376563	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P424301	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P423043	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.058		mg N/L	P423900	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P424107	
2376565	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P423773	

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424301

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423043

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423874

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423900

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424107

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423773

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

Reference Method: EPA 8321B
Batch ID: P423756

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P423757

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: P424301

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423043

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423874

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423900

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424107

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423773

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

Reference Method: EPA 8321B
Batch ID: P423756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	116		P	40 - 150
Desmethyl microcystin LR	121		P	40 - 150
Microcystin H1R	117		P	40 - 150
Microcystin HtyR	124		P	40 - 150
Microcystin LA	101		P	40 - 150
Microcystin LF	114		P	40 - 150
Microcystin LR	130		P	40 - 150
Microcystin LW	126		P	40 - 150
Microcystin LY	106		P	40 - 150
Microcystin RR	120		P	40 - 150
Microcystin WR	118		P	40 - 150
Microcystin YR	134		P	40 - 150
Nodularin-R	111		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P423757

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	92.8		P	40 - 150
Neosaxitoxin	99.2		P	40 - 150
Saxitoxin	101		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424301

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376487	Ammonia-N	98.0	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376631	Kjeldahl Nitrogen	95.6	94.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376538	Kjeldahl Nitrogen	96.3	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376486	NO2NO3-N	110	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376562	Total-P	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376491	O-Phosphate-P	101	100	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P423756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376446	Cylindrospermopsin	102	106	P/P	40 - 150
2376446	Desmethyl microcystin LR	136	142	P/P	40 - 150
2376446	Microcystin H1LR	121	128	P/P	40 - 150
2376446	Microcystin HtyR	126	130	P/P	40 - 150
2376446	Microcystin LA	93.8	96.5	P/P	40 - 150
2376446	Microcystin LF	104	90.5	P/P	40 - 150
2376446	Microcystin LR	144	142	P/P	40 - 150
2376446	Microcystin LW	114	119	P/P	40 - 150
2376446	Microcystin LY	110	106	P/P	40 - 150
2376446	Microcystin RR	106	106	P/P	40 - 150
2376446	Microcystin WR	122	124	P/P	40 - 150
2376446	Microcystin YR	132	144	P/P	40 - 150
2376446	Nodularin-R	116	118	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P423757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2376482	Anatoxin-a	93.7	94.1	P/P	40 - 150
2376482	Neosaxitoxin	83.4	82.0	P/P	40 - 150
2376482	Saxitoxin	78.9	74.0	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P424301

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376487	Ammonia-N	0.725	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376631	Kjeldahl Nitrogen	0.645	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376538	Kjeldahl Nitrogen	2.15	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376486	NO2NO3-N	0.458	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P424107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376562	Total-P	2.34	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376491	O-Phosphate-P	0.895	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P423756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376446	Cylindrospermopsin	3.60	Spike	P	0 - 30
2376446	Desmethyl microcystin LR	4.40	Spike	P	0 - 30
2376446	Microcystin HtR	5.09	Spike	P	0 - 30
2376446	Microcystin HtyR	3.38	Spike	P	0 - 30
2376446	Microcystin LA	2.85	Spike	P	0 - 30
2376446	Microcystin LF	13.9	Spike	P	0 - 30
2376446	Microcystin LR	1.16	Spike	P	0 - 30
2376446	Microcystin LW	3.63	Spike	P	0 - 30
2376446	Microcystin LY	4.50	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P423756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376446	Microcystin RR	0.277	Spike	P	0 - 30
2376446	Microcystin WR	1.53	Spike	P	0 - 30
2376446	Microcystin YR	9.32	Spike	P	0 - 30
2376446	Nodularin-R	1.50	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P423757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2376482	Anatoxin-a	0.390	Spike	P	0 - 30
2376482	Neosaxitoxin	1.67	Spike	P	0 - 30
2376482	Saxitoxin	6.35	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2376560

Field Sample ID: HABCE0156_LittleLakeConway

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	87.6	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	108	P	30 - 160

Lab Sample ID: 2376561

Field Sample ID: HABCE0157_LakeMinneola2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	95.9	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	58.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A116573

Included Lab Sample IDs: 2376564, 2376565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.4	P/P	90 - 110
O-Phosphate-P	98.4	97.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A116604

Included Lab Sample IDs: 2376560, 2376561

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	82.9	76.0	P/P	50 - 160
Neosaxitoxin	90.0	79.4	P/P	50 - 160
Saxitoxin	87.7	81.7	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A116616

Included Lab Sample IDs: 2376560, 2376561

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	119	119	P/P	50 - 160
Desmethyl microcystin LR	134	130	P/P	50 - 160
Microcystin HIR	128	126	P/P	50 - 160
Microcystin HtyR	125	129	P/P	50 - 160
Microcystin LA	112	118	P/P	50 - 160
Microcystin LF	130	126	P/P	50 - 160
Microcystin LR	128	129	P/P	50 - 160
Microcystin LW	134	107	P/P	50 - 160
Microcystin LY	119	110	P/P	50 - 160
Microcystin RR	116	118	P/P	50 - 160
Microcystin WR	130	130	P/P	50 - 160
Microcystin YR	130	136	P/P	50 - 160
Nodularin-R	123	124	P/P	50 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116630

Included Lab Sample IDs: 2376562, 2376563

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116719

Included Lab Sample IDs: 2376562, 2376563

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.6	96.7	P/P	90 - 110
Kjeldahl Nitrogen	96.7	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116747

Included Lab Sample IDs: 2376562, 2376563

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116747

Included Lab Sample IDs: 2376562, 2376563

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	96.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116809

Included Lab Sample IDs: 2376562, 2376563

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	90.9	97.9	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	
EPA 350.1 Rev. 2.0	Ammonia-N	100	98.0	97.0			0.725
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	95.6	94.6			0.645
	Kjeldahl Nitrogen	99.7	96.3	99.8			2.15
	NO2NO3-N	108	110	109			0.458
EPA 353.2 Rev. 2.0	Total-P	102	102	104			2.34
EPA 365.1 Rev. 2.0	O-Phosphate-P	99.4	101	100			0.895
EPA 8321B	Anatoxin-a	92.8	93.7	94.1			0.390
	Cylindrospermopsin	116	102	106			3.60
	Desmethyl microcystin LR	121	136	142			4.40
	Microcystin HiLR	117	121	128			5.09
	Microcystin HtyR	124	126	130			3.38
	Microcystin LA	101	93.8	96.5			2.85
	Microcystin LF	114	104	90.5			13.9
	Microcystin LR	130	144	142			1.16
	Microcystin LW	126	114	119			3.63
	Microcystin LY	106	110	106			4.50
	Microcystin RR	120	106	106			0.277
	Microcystin WR	118	122	124			1.53
	Microcystin YR	134	132	144			9.32
	Neosaxitoxin	99.2	83.4	82.0			1.67
	Nodularin-R	111	116	118			1.50
	Saxitoxin	101	78.9	74.0			6.35

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2376562, 2376563
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2376562, 2376563
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2376562, 2376563
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2376562, 2376563
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2376564, 2376565
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2376560, 2376561
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2376560, 2376561

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	12/20/2022			01/09/2023 13:34	Ping Hua	2376562
	12/20/2022			01/09/2023 13:35	Ping Hua	2376563
EPA 351.2 Rev. 2.0	12/20/2022	01/03/2023 13:30	Simonne.V. Calhoun	01/04/2023 12:01	Samantha L Bates	2376563
	12/20/2022	12/22/2022 12:45	Simonne.V. Calhoun	01/04/2023 11:43	Samantha L Bates	2376562
EPA 353.2 Rev. 2.0	12/20/2022			12/22/2022 11:17	Beverly Y. Sanders	2376562
	12/20/2022			12/22/2022 11:19	Beverly Y. Sanders	2376563
EPA 365.1 Rev. 2.0	12/20/2022	01/03/2023 14:10	Adam P Silver	01/05/2023 13:52	James L Waggerby	2376562
	12/20/2022	01/03/2023 14:10	Adam P Silver	01/05/2023 13:58	James L Waggerby	2376563
EPA 365.1 Rev. 2.0 dissolved	12/20/2022			12/20/2022 14:23	Elise M. Gillis	2376564
	12/20/2022			12/20/2022 14:29	Elise M. Gillis	2376565
EPA 8321B	12/20/2022	12/21/2022 09:00	Manjita Shrestha	12/21/2022 13:43	Manjita Shrestha	2376560
	12/20/2022	12/21/2022 09:00	Manjita Shrestha	12/21/2022 13:57	Manjita Shrestha	2376561
	12/20/2022	12/21/2022 12:00	Manjita Shrestha	12/21/2022 19:43	Manjita Shrestha	2376560
	12/20/2022	12/21/2022 12:00	Manjita Shrestha	12/21/2022 20:00	Manjita Shrestha	2376561