

Chemical Analysis Report

WQAP-2020-12-03-01

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

Event Description: **Lake O Release**
Request ID: **RQ-2020-10-26-50**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
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Date Certified: 21-DEC-2020 12:05



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: Ballard Park Eau Gallie River

Collection Date/Time: 12/02/2020 13:14

Field ID: Ballard Park

Matrix: W-BRACKISH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210242	EPA 8321B	Anatoxin-a**	0.25	U	ug/L	P390641	
		Cylindrospermopsin**	0.25	U	ug/L	P390641	
		Desmethyl microcystin LR**	0.25	U	ug/L	P390641	
		Microcystin LA**	0.25	U	ug/L	P390641	
		Microcystin LF**	0.25	U	ug/L	P390641	
		Microcystin LR**	0.25	U	ug/L	P390641	
		Microcystin LW**	0.25	U	ug/L	P390641	
		Microcystin LY**	0.25	U	ug/L	P390641	
		Microcystin RR**	0.25	U	ug/L	P390641	
		Microcystin WR**	0.50	U	ug/L	P390641	
		Microcystin YR**	0.25	U	ug/L	P390641	
		Saxitoxin**	5.0	U	ug/L	P390682	
2210244	EPA 350.1 Rev. 2.0	Ammonia-N	0.68		mg N/L	P390726	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P391034	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P390761	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P390780	
2210246	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.082		mg P/L	P390663	

Ref. Method and Comment:

EPA 8321B: MDL elevated due to required dilution of sample matrix.

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Eau Gallie Cswy Boat Ramp

Collection Date/Time: 12/02/2020 13:41

Field ID: Eau Gallie Cswy

Matrix: W-BRACKISH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210243	EPA 8321B	Anatoxin-a**	0.25	U	ug/L	P390641	
		Cylindrospermopsin**	0.25	U	ug/L	P390641	
		Desmethyl microcystin LR**	0.25	U	ug/L	P390641	
		Microcystin LA**	0.25	U	ug/L	P390641	
		Microcystin LF**	0.25	U	ug/L	P390641	
		Microcystin LR**	0.25	U	ug/L	P390641	
		Microcystin LW**	0.25	U	ug/L	P390641	
		Microcystin LY**	0.25	U	ug/L	P390641	
		Microcystin RR**	0.25	U	ug/L	P390641	
		Microcystin WR**	0.50	U	ug/L	P390641	
		Microcystin YR**	0.25	U	ug/L	P390641	
		Saxitoxin**	5.0	U	ug/L	P390682	
2210245	EPA 350.1 Rev. 2.0	Ammonia-N	0.26		mg N/L	P390726	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P390660	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.44		mg N/L	P390761	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P390780	
2210247	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P390663	

Ref. Method and Comment:

EPA 8321B: MDL elevated due to required dilution of sample matrix.

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P390726

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390660

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391034

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390761

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390780

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390663

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

Reference Method: EPA 8321B
Batch ID: P390641

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Cylindrospermopsin	0.25	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin LA	0.25	U	ug/L
Microcystin LF	0.25	U	ug/L
Microcystin LR	0.25	U	ug/L
Microcystin LW	0.25	U	ug/L
Microcystin LY	0.25	U	ug/L
Microcystin RR	0.25	U	ug/L
Microcystin WR	0.50	U	ug/L
Microcystin YR	0.25	U	ug/L

Reference Method: EPA 8321B
Batch ID: P390682

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P390682

Component	Result	Code	Units
Saxitoxin	0.50	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P390726

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390660

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390780

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: P390663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.9		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P390641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	115		P	40 - 140
Cylindrospermopsin	97.5		P	40 - 140
Desmethyl microcystin LR	120		P	40 - 140
Microcystin LA	139		P	40 - 140
Microcystin LF	92.7		P	40 - 140
Microcystin LR	99.6		P	40 - 140
Microcystin LW	108		P	40 - 140
Microcystin LY	108		P	40 - 140
Microcystin RR	110		P	40 - 140
Microcystin WR	125		P	40 - 140
Microcystin YR	137		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P390682

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

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P390682

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Saxitoxin	100		P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209427	Kjeldahl Nitrogen	96.1	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211433	Kjeldahl Nitrogen	96.9	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209449	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209428	Total-P	101	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210247	O-Phosphate-P	99.9	99.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P390641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210242	Anatoxin-a	115	111	P/P	40 - 140
2210242	Cylindrospermopsin	93.2	99.2	P/P	40 - 140
2210242	Desmethyl microcystin LR	96.4	92.9	P/P	40 - 140
2210242	Microcystin LA	92.4	83.6	P/P	40 - 140
2210242	Microcystin LF	68.1	69.0	P/P	40 - 140
2210242	Microcystin LR	103	96.0	P/P	40 - 140
2210242	Microcystin LW	71.2	76.6	P/P	40 - 140
2210242	Microcystin LY	95.9	87.6	P/P	40 - 140
2210242	Microcystin RR	86.9	92.6	P/P	40 - 140
2210242	Microcystin WR	97.9	99.8	P/P	40 - 140
2210242	Microcystin YR	99.3	92.6	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P390682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210242	Saxitoxin	46.5	49.0	P/P	40 - 160

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P390726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209607	Ammonia-N	0.131	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209427	Kjeldahl Nitrogen	3.09	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211433	Kjeldahl Nitrogen	1.90	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209449	NO2NO3-N	0.501	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209428	Total-P	0.933	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390663

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210247	O-Phosphate-P	0.227	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P390641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210242	Anatoxin-a	3.64	Spike	P	0 - 30
2210242	Cylindrospermopsin	6.18	Spike	P	0 - 30
2210242	Desmethyl microcystin LR	3.70	Spike	P	0 - 30
2210242	Microcystin LA	9.96	Spike	P	0 - 30
2210242	Microcystin LF	1.24	Spike	P	0 - 30
2210242	Microcystin LR	6.77	Spike	P	0 - 30
2210242	Microcystin LW	7.40	Spike	P	0 - 30
2210242	Microcystin LY	9.13	Spike	P	0 - 30
2210242	Microcystin RR	6.26	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P390641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210242	Microcystin WR	1.93	Spike	P	0 - 30
2210242	Microcystin YR	7.03	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P390682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210242	Saxitoxin	5.06	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2210242
Field Sample ID: Ballard Park

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	104	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	86.8	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	62.3	P	30 - 160

Lab Sample ID: 2210243
Field Sample ID: Eau Gallie Cswy

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	103	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	91.9	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	47.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A102398

Included Lab Sample IDs: 2210242, 2210243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	96.1	102	P/P	50 - 160
Cylindrospermopsin	94.8	97.2	P/P	60 - 160
Desmethyl microcystin LR	97.4	108	P/P	60 - 160
Microcystin LA	120	113	P/P	50 - 160
Microcystin LF	91.3	69.6	P/P	50 - 160
Microcystin LR	107	111	P/P	60 - 160
Microcystin LW	90.2	84.3	P/P	60 - 160
Microcystin LY	104	114	P/P	60 - 160
Microcystin RR	114	108	P/P	60 - 160
Microcystin WR	101	112	P/P	60 - 160
Microcystin YR	124	105	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102399

Included Lab Sample IDs: 2210246, 2210247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.0	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102412

Included Lab Sample IDs: 2210245

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.8	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102426

Included Lab Sample IDs: 2210242, 2210243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Saxitoxin	114	112	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102429

Included Lab Sample IDs: 2210244, 2210245

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102442

Included Lab Sample IDs: 2210244, 2210245

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102490

Included Lab Sample IDs: 2210244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	104	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102526

Included Lab Sample IDs: 2210245

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102547

Included Lab Sample IDs: 2210244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	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	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4				0.131
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.6	96.1	99.4		3.09
	Kjeldahl Nitrogen	97.8	96.9	98.9		1.90
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0	100	99.5		0.501
EPA 365.1 Rev. 2.0	Total-P	106	101	99.8		0.933
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9	99.9	99.6		0.227
EPA 8321B	Anatoxin-a	115	115	111		3.64
	Cylindrospermopsin	97.5	93.2	99.2		6.18
	Desmethyl microcystin LR	120	96.4	92.9		3.70
	Microcystin LA	139	92.4	83.6		9.96
	Microcystin LF	92.7	68.1	69.0		1.24
	Microcystin LR	99.6	103	96.0		6.77
	Microcystin LW	108	71.2	76.6		7.40
	Microcystin LY	108	95.9	87.6		9.13
	Microcystin RR	110	86.9	92.6		6.26
	Microcystin WR	125	97.9	99.8		1.93
	Microcystin YR	137	99.3	92.6		7.03
	Saxitoxin	100	46.5	49.0		5.06

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2210244, 2210245
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2210244, 2210245
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2210244, 2210245
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2210244, 2210245
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2210246, 2210247
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2210242, 2210243
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2210242, 2210243

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	12/03/2020			12/05/2020 16:59	Ping Hua	2210244
	12/03/2020			12/05/2020 17:00	Ping Hua	2210245
EPA 351.2 Rev. 2.0	12/03/2020	12/03/2020 16:30	David Boose	12/04/2020 10:04	Elliott Rodriguez	2210245
	12/03/2020	12/09/2020 12:17	David Boose	12/11/2020 16:26	Julia Storbeck	2210244
EPA 353.2 Rev. 2.0	12/03/2020			12/07/2020 10:59	Beverly Y. Sanders	2210244
	12/03/2020			12/07/2020 11:00	Beverly Y. Sanders	2210245
EPA 365.1 Rev. 2.0	12/03/2020	12/07/2020 14:14	Yen Ta	12/09/2020 12:26	Lipi Saha	2210244
	12/03/2020	12/07/2020 14:14	Yen Ta	12/10/2020 15:13	Shengyu Wang	2210245
EPA 365.1 Rev. 2.0 dissolved	12/03/2020			12/03/2020 15:36	Samantha Davila	2210247
	12/03/2020			12/03/2020 15:39	Samantha Davila	2210246
EPA 8321B	12/03/2020	12/03/2020 11:00	Juyoung Kim	12/03/2020 12:45	Mohammad Ghaffari	2210242
	12/03/2020	12/03/2020 11:00	Juyoung Kim	12/03/2020 13:01	Mohammad Ghaffari	2210243
	12/03/2020	12/04/2020 11:00	Juyoung Kim	12/05/2020 00:25	Pramila Ghimire	2210242
	12/03/2020	12/04/2020 11:00	Juyoung Kim	12/05/2020 00:56	Pramila Ghimire	2210243