

Chemical Analysis Report

WQAP-2023-06-08-03

Florida DEP Laboratory
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DOH Accreditation E31780

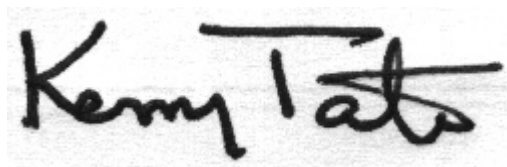
Event Description: **Algal Bloom Response -SOROC**
Request ID: **RQ-2023-05-29-66**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 21-JUN-2023 09:04

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: Peace River - Veterans Park

Collection Date/Time: 06/07/2023 12:30

Field ID: HAB-SD-060723-1230

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2415958	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	0.50	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	0.50	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2415964	EPA 350.1 Rev. 2.0	Ammonia-N	0.044		mg N/L	P431150	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P431119	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.43		mg N/L	P431365	
	EPA 365.1 Rev. 2.0	Total-P	0.79		mg P/L	P431121	
2415970	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.57		mg P/L	P431026	

Sample Location: Peace River - Brownsville Park

Collection Date/Time: 06/07/2023 12:00

Field ID: HAB-SD-060723-1200

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2415957	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	0.50	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	0.50	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2415963	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P431149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P431119	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P431365	
	EPA 365.1 Rev. 2.0	Total-P	0.88		mg P/L	P431121	
2415969	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.62		mg P/L	P431026	

Sample Location: Peace River - Crews Park Boat Ramp

Collection Date/Time: 06/07/2023 11:15

Field ID: HAB-SD-060723-1115

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2415956	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	0.50	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	0.50	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2415962	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P431149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P431119	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P431365	
	EPA 365.1 Rev. 2.0	Total-P	1.2		mg P/L	P431121	
2415968	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.84		mg P/L	P431026	

Sample Location: Lake Apthorpe - Boat Ramp

Collection Date/Time: 06/07/2023 10:10

Field ID: HAB-SD-060723-1010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2415955	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	0.50	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	0.50	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2415961	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P431149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P431119	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.039		mg N/L	P431365	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P431121	
2415967	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P431009	

Sample Location: Blue Lake - Western Shore

Collection Date/Time: 06/07/2023 09:50

Field ID: HAB-SD-060723-0950

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2415954	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	0.50	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	0.50	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2415960	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P431149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.68		mg N/L	P431119	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P431365	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P431121	
2415966	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P431009	

Sample Location: Caloosahatchee - Fort Myers Shores

Collection Date/Time: 06/07/2023 08:10

Field ID: HAB-SD-060723-0810

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2415953	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	0.50	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	0.50	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2415959	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P431149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P431119	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.047		mg N/L	P431365	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P431121	
2415965	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.065		mg P/L	P431009	

Sample Location: Peace River - Veterans Park

Collection Date/Time: 06/07/2023 12:40

Field ID: FB_06072023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2416049	EPA 8321B	Anatoxin-a	0.50	U	ug/L	P430973	
		Cylindrospermopsin	0.10	U	ug/L	P430972	
		Desmethyl microcystin LR	0.25	U	ug/L	P430972	
		Microcystin HILR	0.25	U	ug/L	P430972	
		Microcystin HtyR	0.25	U	ug/L	P430972	
		Microcystin LA	0.10	U	ug/L	P430972	
		Microcystin LF	0.10	U	ug/L	P430972	
		Microcystin LR	0.25	U	ug/L	P430972	
		Microcystin LW	0.25	U	ug/L	P430972	
		Microcystin LY	0.10	U	ug/L	P430972	
		Microcystin RR	0.10	U	ug/L	P430972	
		Microcystin WR	0.50	U	ug/L	P430972	
		Neosaxitoxin	1.0	U	ug/L	P430973	
		Microcystin YR	0.25	U	ug/L	P430972	
		Saxitoxin	1.0	U	ug/L	P430973	MS
		Nodularin-R	0.10	U	ug/L	P430972	
2416050	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P431150	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P431265	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P431366	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P431122	
2416051	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P431010	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431149

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431150

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431119

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431365

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431366

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431121

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431122

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431009

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431010

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431026

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

Reference Method: EPA 8321B
Batch ID: P430972

Component	Result	Code	Units
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin H11R	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: P430973

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: P431149

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431150

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431119

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

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: P431365

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431366

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431121

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431122

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431009

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431010

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431026

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

Reference Method: EPA 8321B
Batch ID: P430972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	95.7		P	40 - 150
Desmethyl microcystin LR	98.3		P	40 - 150
Microcystin H1LR	99.6		P	40 - 150
Microcystin HtyR	101		P	40 - 150
Microcystin LA	82.8		P	40 - 150
Microcystin LF	92.8		P	40 - 150
Microcystin LR	105		P	40 - 150
Microcystin LW	93.9		P	40 - 150
Microcystin LY	100		P	40 - 150
Microcystin RR	85.2		P	40 - 150
Microcystin WR	108		P	40 - 150
Microcystin YR	101		P	40 - 150
Nodularin-R	90.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P430973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	108		P	40 - 150
Neosaxitoxin	117		P	40 - 150
Saxitoxin	107		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415790	Ammonia-N	98.8	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431150

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415964	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415961	Kjeldahl Nitrogen	97.8	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416070	Kjeldahl Nitrogen	102	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415959	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431366

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415982	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415960	Total-P	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415981	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431009

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415724	O-Phosphate-P	96.4	96.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415977	O-Phosphate-P	95.8	95.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415970	O-Phosphate-P	94.2	95.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P430972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2414500	Cylindrospermopsin	98.3	99.9	P/P	40 - 150
2414500	Desmethyl microcystin LR	133	134	P/P	40 - 150
2414500	Microcystin H1R	132	126	P/P	40 - 150
2414500	Microcystin HtyR	137	141	P/P	40 - 150
2414500	Microcystin LA	91.1	109	P/P	40 - 150
2414500	Microcystin LF	114	120	P/P	40 - 150
2414500	Microcystin LR	137	149	P/P	40 - 150
2414500	Microcystin LW	147	120	P/P	40 - 150
2414500	Microcystin LY	114	129	P/P	40 - 150
2414500	Microcystin RR	97.4	102	P/P	40 - 150
2414500	Microcystin WR	135	133	P/P	40 - 150
2414500	Microcystin YR	138	140	P/P	40 - 150
2414500	Nodularin-R	123	123	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P430973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2414500	Anatoxin-a	115	116	P/P	40 - 150
2414500	Neosaxitoxin	64.7	65.8	P/P	40 - 150
2414500	Saxitoxin	26.0	26.0	F/F	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415790	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415964	Ammonia-N	0.425	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415961	Kjeldahl Nitrogen	3.85	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416070	Kjeldahl Nitrogen	2.50	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415959	NO2NO3-N	0.396	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431366

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415982	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415960	Total-P	0.602	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415981	Total-P	1.86	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415724	O-Phosphate-P	0.0849	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415977	O-Phosphate-P	0.733	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P431026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415970	O-Phosphate-P	0.634	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P430972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2414500	Cylindrospermopsin	1.57	Spike	P	0 - 30
2414500	Desmethyl microcystin LR	0.891	Spike	P	0 - 30
2414500	Microcystin HtIR	4.36	Spike	P	0 - 30
2414500	Microcystin HtyR	2.58	Spike	P	0 - 30
2414500	Microcystin LA	18.3	Spike	P	0 - 30
2414500	Microcystin LF	4.51	Spike	P	0 - 30
2414500	Microcystin LR	8.64	Spike	P	0 - 30
2414500	Microcystin LW	20.1	Spike	P	0 - 30
2414500	Microcystin LY	12.4	Spike	P	0 - 30
2414500	Microcystin RR	4.53	Spike	P	0 - 30
2414500	Microcystin WR	1.69	Spike	P	0 - 30
2414500	Microcystin YR	1.09	Spike	P	0 - 30
2414500	Nodularin-R	0.0915	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P430973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2414500	Anatoxin-a	1.11	Spike	P	0 - 30
2414500	Neosaxitoxin	1.77	Spike	P	0 - 30
2414500	Saxitoxin	0.0868	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2415953
Field Sample ID: HAB-SD-060723-0810

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	104	P	30 - 160
EPA 8321B	Saxitoxin-15N7	84.6	P	30 - 160

Lab Sample ID: 2415954
Field Sample ID: HAB-SD-060723-0950

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	101	P	30 - 160
EPA 8321B	Saxitoxin-15N7	94.0	P	30 - 160

Lab Sample ID: 2415955
Field Sample ID: HAB-SD-060723-1010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	102	P	30 - 160
EPA 8321B	Saxitoxin-15N7	92.2	P	30 - 160

Lab Sample ID: 2415956
Field Sample ID: HAB-SD-060723-1115

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	112	P	30 - 160
EPA 8321B	Saxitoxin-15N7	41.6	P	30 - 160

Lab Sample ID: 2415957
Field Sample ID: HAB-SD-060723-1200

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	107	P	30 - 160
EPA 8321B	Saxitoxin-15N7	36.1	P	30 - 160

Lab Sample ID: 2415958
Field Sample ID: HAB-SD-060723-1230

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	121	P	30 - 160
EPA 8321B	Saxitoxin-15N7	42.5	P	30 - 160

Lab Sample ID: 2416049
Field Sample ID: FB_06072023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	69.2	P	30 - 160
EPA 8321B	Saxitoxin-15N7	104	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119666

Included Lab Sample IDs: 2415965, 2415966, 2415967, 2416051

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	98.3	P/P	90 - 110
O-Phosphate-P	99.6	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119673

Included Lab Sample IDs: 2415968, 2415969, 2415970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	97.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A119675

Included Lab Sample IDs: 2415953, 2415954, 2415955, 2415956, 2415957, 2415958, 2416049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	88.5	88.3	P/P	50 - 160
Cylindrospermopsin	95.8	88.5	P/P	50 - 160
Desmethyl microcystin LR	93.6	96.0	P/P	50 - 160
Desmethyl microcystin LR	98.6	93.6	P/P	50 - 160
Microcystin HIR	95.3	96.7	P/P	50 - 160
Microcystin HIR	99.6	95.3	P/P	50 - 160
Microcystin HtyR	102	109	P/P	50 - 160
Microcystin HtyR	104	102	P/P	50 - 160
Microcystin LA	69.4	76.4	P/P	50 - 160
Microcystin LA	94.4	69.4	P/P	50 - 160
Microcystin LF	73.7	67.0	P/P	50 - 160
Microcystin LF	87.7	73.7	P/P	50 - 160
Microcystin LR	102	99.0	P/P	50 - 160
Microcystin LR	99.0	101	P/P	50 - 160
Microcystin LW	115	96.2	P/P	50 - 160
Microcystin LW	96.2	93.3	P/P	50 - 160
Microcystin LY	109	97.0	P/P	50 - 160
Microcystin LY	97.0	109	P/P	50 - 160
Microcystin RR	83.1	84.8	P/P	50 - 160
Microcystin RR	84.8	85.6	P/P	50 - 160
Microcystin WR	102	109	P/P	50 - 160
Microcystin WR	113	102	P/P	50 - 160
Microcystin YR	104	107	P/P	50 - 160
Microcystin YR	107	106	P/P	50 - 160
Nodularin-R	87.3	90.5	P/P	50 - 160
Nodularin-R	87.4	87.3	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A119686

Included Lab Sample IDs: 2415953, 2415954, 2415955, 2415956, 2415957, 2415958, 2416049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	110	103	P/P	50 - 160
Anatoxin-a	113	110	P/P	50 - 160
Neosaxitoxin	113	97.7	P/P	50 - 160
Neosaxitoxin	97.7	102	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A119686

Included Lab Sample IDs: 2415953, 2415954, 2415955, 2415956, 2415957, 2415958, 2416049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Saxitoxin	105	88.6	P/P	50 - 160
Saxitoxin	88.6	99.8	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119733

Included Lab Sample IDs: 2415959, 2415960, 2415961, 2415962, 2415963, 2415964, 2416050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	99.8	P/P	90 - 110
Ammonia-N	98.7	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119763

Included Lab Sample IDs: 2415959

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119766

Included Lab Sample IDs: 2415960, 2415961, 2416050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.2	P/P	90 - 110
Total-P	99.0	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119800

Included Lab Sample IDs: 2415962, 2415963, 2415964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	102	P/P	90 - 110
Total-P	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119838

Included Lab Sample IDs: 2415959, 2415960, 2415961, 2415962, 2415963, 2415964, 2416050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	105	P/P	90 - 110
NO2NO3-N	105	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119841

Included Lab Sample IDs: 2415959, 2415960, 2415961, 2415962, 2415963, 2415964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	105	P/P	90 - 110
Kjeldahl Nitrogen	105	102	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119856

Included Lab Sample IDs: 2416050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.9	100	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	95.8	98.8	98.8			0.0
	Ammonia-N	94.6	100	101			0.425
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	97.8	103			3.85
	Kjeldahl Nitrogen	101	102	98.4			2.50
EPA 353.2 Rev. 2.0	NO2NO3-N	104	103	102			0.396
	NO2NO3-N	104	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	102	100	99.5			0.602
	Total-P	101	104	102			1.86
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4	96.4	96.5			0.0849
	O-Phosphate-P	97.2	95.8	95.1			0.733
	O-Phosphate-P	105	94.2	95.7			0.634
EPA 8321B	Anatoxin-a	108	115	116			1.11
	Cylindrospermopsin	95.7	98.3	99.9			1.57
	Desmethyl microcystin LR	98.3	133	134			0.891
	Microcystin HiLR	99.6	132	126			4.36
	Microcystin HtyR	101	137	141			2.58
	Microcystin LA	82.8	91.1	109			18.3
	Microcystin LF	92.8	114	120			4.51
	Microcystin LR	105	137	149			8.64
	Microcystin LW	93.9	147	120			20.1
	Microcystin LY	100	114	129			12.4
	Microcystin RR	85.2	97.4	102			4.53
	Microcystin WR	108	135	133			1.69
	Microcystin YR	101	138	140			1.09
	Neosaxitoxin	117	64.7	65.8			1.77
	Nodularin-R	90.5	123	123			0.0915
	Saxitoxin	107	26.0	26.0			0.0868

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2415959, 2415960, 2415961, 2415962, 2415963, 2415964, 2416050
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2415959, 2415960, 2415961, 2415962, 2415963, 2415964, 2416050
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2415959, 2415960, 2415961, 2415962, 2415963, 2415964, 2416050
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2415959, 2415960, 2415961, 2415962, 2415963, 2415964, 2416050
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2415965, 2415966, 2415967, 2415968, 2415969, 2415970, 2416051
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2415953, 2415954, 2415955, 2415956, 2415957, 2415958, 2416049
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2415953, 2415954, 2415955, 2415956, 2415957, 2415958, 2416049

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	06/08/2023			06/12/2023 12:56	Khloe J Berg	2415959
	06/08/2023			06/12/2023 12:58	Khloe J Berg	2415960
	06/08/2023			06/12/2023 12:59	Khloe J Berg	2415961
	06/08/2023			06/12/2023 13:00	Khloe J Berg	2415962
	06/08/2023			06/12/2023 13:02	Khloe J Berg	2415963
	06/08/2023			06/12/2023 13:14	Khloe J Berg	2415964
	06/08/2023			06/12/2023 13:27	Khloe J Berg	2416050
EPA 351.2 Rev. 2.0	06/08/2023	06/12/2023 12:30	Simonne.V. Calhoun	06/15/2023 11:15	Ping Hua	2415959
	06/08/2023	06/12/2023 12:30	Simonne.V. Calhoun	06/15/2023 11:17	Ping Hua	2415960
	06/08/2023	06/12/2023 12:30	Simonne.V. Calhoun	06/15/2023 11:18	Ping Hua	2415961
	06/08/2023	06/12/2023 12:30	Simonne.V. Calhoun	06/15/2023 11:27	Ping Hua	2415962
	06/08/2023	06/12/2023 12:30	Simonne.V. Calhoun	06/15/2023 11:28	Ping Hua	2415963
	06/08/2023	06/12/2023 12:30	Simonne.V. Calhoun	06/15/2023 11:30	Ping Hua	2415964
EPA 353.2 Rev. 2.0	06/08/2023	06/14/2023 12:52	Ping Hua	06/16/2023 10:18	Samantha L Bates	2416050
	06/08/2023			06/15/2023 09:34	Beverly Y. Sanders	2415959
	06/08/2023			06/15/2023 09:42	Beverly Y. Sanders	2415960
	06/08/2023			06/15/2023 09:43	Beverly Y. Sanders	2415961
	06/08/2023			06/15/2023 09:44	Beverly Y. Sanders	2415962
	06/08/2023			06/15/2023 09:45	Beverly Y. Sanders	2415963
	06/08/2023			06/15/2023 09:46	Beverly Y. Sanders	2415964
EPA 365.1 Rev. 2.0	06/08/2023			06/15/2023 10:06	Beverly Y. Sanders	2416050
	06/08/2023	06/12/2023 13:00	Alexis Price	06/13/2023 12:05	Simonne.V. Calhoun	2415959
	06/08/2023	06/12/2023 13:00	Alexis Price	06/13/2023 14:01	Simonne.V. Calhoun	2415960
	06/08/2023	06/12/2023 13:00	Alexis Price	06/13/2023 14:02	Simonne.V. Calhoun	2415961
	06/08/2023	06/12/2023 13:00	Alexis Price	06/13/2023 14:38	Simonne.V. Calhoun	2416050
	06/08/2023	06/12/2023 13:00	Alexis Price	06/14/2023 11:12	Chandler E Cox	2415962
	06/08/2023	06/12/2023 13:00	Alexis Price	06/14/2023 11:16	Chandler E Cox	2415963
EPA 365.1 Rev. 2.0 dissolved	06/08/2023			06/14/2023 11:18	Chandler E Cox	2415964
	06/08/2023			06/08/2023 13:49	Adam P Silver	2415965
	06/08/2023			06/08/2023 13:50	Adam P Silver	2415966
	06/08/2023			06/08/2023 13:51	Adam P Silver	2415967
	06/08/2023			06/08/2023 14:08	Adam P Silver	2416051
	06/08/2023			06/08/2023 17:15	Adam P Silver	2415970
	06/08/2023			06/08/2023 17:18	Adam P Silver	2415968
EPA 8321B	06/08/2023			06/08/2023 17:19	Adam P Silver	2415969
	06/08/2023	06/08/2023 11:00	Touraj Touran	06/08/2023 18:15	Touraj Touran	2415953
	06/08/2023	06/08/2023 11:00	Touraj Touran	06/08/2023 18:32	Touraj Touran	2415954
	06/08/2023	06/08/2023 11:00	Touraj Touran	06/08/2023 18:49	Touraj Touran	2415955
	06/08/2023	06/08/2023 11:00	Touraj Touran	06/08/2023 19:06	Touraj Touran	2415956
	06/08/2023	06/08/2023 11:00	Touraj Touran	06/08/2023 19:39	Touraj Touran	2415957
	06/08/2023					

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	06/08/2023	06/08/2023 11:00	Touraj Touran	06/08/2023 19:56	Touraj Touran	2415958
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/08/2023 17:58	Touraj Touran	2416049
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 15:01	Touraj Touran	2415953
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 15:15	Touraj Touran	2415954
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 15:29	Touraj Touran	2415955
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 15:43	Touraj Touran	2415956
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 15:57	Touraj Touran	2415957
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 16:11	Touraj Touran	2415958
	06/08/2023	06/08/2023 13:00	Touraj Touran	06/09/2023 17:34	Touraj Touran	2416049