Chemical Analysis Report

WQAP-2021-05-26-01

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

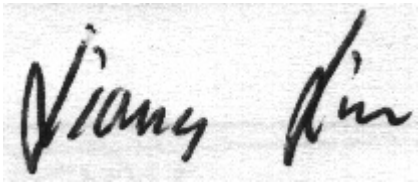
Event Description: **Algal Bloom Response -Lee County**
Request ID: **RQ-2021-05-24-51**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
2295 Victoria AVE
Suite 364
Fort Myers, FL 33901
Attn: Kirby Wolfe

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 16-JUN-2021 14:25



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: Davis Boat Ramp **Collection Date/Time: 05/25/2021 09:39**

Field ID: Davis Boat Ramp Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250022	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P398772	
		Cylindrospermopsin	0.10	U	ug/L	P398772	
		Desmethyl microcystin LR	0.25	U	ug/L	P398772	
		Microcystin HilR**	0.25	U	ug/L	P398772	
		Microcystin HtyR**	0.25	U	ug/L	P398772	
		Microcystin LA	0.10	U	ug/L	P398772	
		Microcystin LF	0.10	U	ug/L	P398772	
		Microcystin LR	1.1		ug/L	P398772	
		Microcystin LW	0.25	U	ug/L	P398772	
		Microcystin LY	0.10	U	ug/L	P398772	
		Microcystin RR	0.10	U	ug/L	P398772	
		Microcystin WR	0.50	U	ug/L	P398772	
		Microcystin YR	0.25	U	ug/L	P398772	
		Nodularin-R**	0.10	U	ug/L	P398772	
2250024	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P399306	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P398949	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P398885	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P398922	
2250026	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.041		mg P/L	P398849	

Ref. Method and Comment:
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Alva Boat Ramp **Collection Date/Time: 05/25/2021 08:32**

Field ID: Alva Boat Ramp Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250021	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P398772	
		Cylindrospermopsin	0.10	U	ug/L	P398772	
		Desmethyl microcystin LR	0.25	U	ug/L	P398772	
		Microcystin HilR**	0.25	U	ug/L	P398772	
		Microcystin HtyR**	0.25	U	ug/L	P398772	
		Microcystin LA	0.10	U	ug/L	P398772	
		Microcystin LF	0.10	U	ug/L	P398772	
		Microcystin LR	0.30	I	ug/L	P398772	
		Microcystin LW	0.25	U	ug/L	P398772	
		Microcystin LY	0.10	U	ug/L	P398772	
		Microcystin RR	0.10	U	ug/L	P398772	
		Microcystin WR	0.50	U	ug/L	P398772	
		Microcystin YR	0.25	U	ug/L	P398772	
		Nodularin-R**	0.10	U	ug/L	P398772	
2250023	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P399306	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P398949	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.092		mg N/L	P398885	
	EPA 365.1 Rev. 2.0	Total-P	0.097		mg P/L	P398922	
2250025	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P398849	

Ref. Method and Comment:
EPA 351.2 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: P399306

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398949

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398885

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398922

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

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

Reference Method: EPA 8321B
Batch ID: P398772

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin HilR	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
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399306

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398885

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: P398922

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

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

Reference Method: EPA 8321B
Batch ID: P398772

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	92.9		P	40 - 150
Cylindrospermopsin	104		P	40 - 150
Desmethyl microcystin LR	75.5		P	40 - 150
Microcystin HilR	73.5		P	40 - 150
Microcystin HtyR	64.8		P	40 - 150
Microcystin LA	87.4		P	40 - 150
Microcystin LF	83.0		P	40 - 150
Microcystin LR	65.9		P	40 - 150
Microcystin LW	75.3		P	40 - 150
Microcystin LY	73.9		P	40 - 150
Microcystin RR	89.9		P	40 - 150
Microcystin WR	73.9		P	40 - 150
Microcystin YR	58.9		P	40 - 150
Nodularin-R	86.8		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399306

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250023	Ammonia-N	98.8	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398885

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249988	NO2NO3-N	96.0	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398922

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249988	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250025	O-Phosphate-P	96.4	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P398772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250021	Anatoxin-a	94.1	93.5	P/P	40 - 150
2250021	Cylindrospermopsin	95.8	100	P/P	40 - 150
2250021	Desmethyl microcystin LR	74.3	79.2	P/P	40 - 150
2250021	Microcystin HilR	75.0	81.0	P/P	40 - 150
2250021	Microcystin HtyR	67.5	74.3	P/P	40 - 150
2250021	Microcystin LA	84.5	90.4	P/P	40 - 150
2250021	Microcystin LF	79.0	81.9	P/P	40 - 150
2250021	Microcystin LR	67.3	72.7	P/P	40 - 150
2250021	Microcystin LW	72.6	71.0	P/P	40 - 150
2250021	Microcystin LY	70.5	74.7	P/P	40 - 150
2250021	Microcystin RR	87.4	91.6	P/P	40 - 150
2250021	Microcystin WR	74.7	75.7	P/P	40 - 150
2250021	Microcystin YR	60.4	65.0	P/P	40 - 150
2250021	Nodularin-R	89.2	99.0	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399306

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250023	Ammonia-N	0.292	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P398949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249990	Kjeldahl Nitrogen	0.159	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249988	NO2NO3-N	0.522	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398922

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249988	Total-P	2.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250025	O-Phosphate-P	0.220	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P398772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250021	Anatoxin-a	0.591	Spike	P	0 - 30
2250021	Cylindrospermopsin	4.68	Spike	P	0 - 30
2250021	Desmethyl microcystin LR	6.40	Spike	P	0 - 30
2250021	Microcystin HilR	7.63	Spike	P	0 - 30
2250021	Microcystin HtyR	9.60	Spike	P	0 - 30
2250021	Microcystin LA	6.83	Spike	P	0 - 30
2250021	Microcystin LF	3.63	Spike	P	0 - 30
2250021	Microcystin LR	7.33	Spike	P	0 - 30
2250021	Microcystin LW	2.23	Spike	P	0 - 30
2250021	Microcystin LY	5.79	Spike	P	0 - 30
2250021	Microcystin RR	4.70	Spike	P	0 - 30
2250021	Microcystin WR	1.32	Spike	P	0 - 30
2250021	Microcystin YR	7.27	Spike	P	0 - 30
2250021	Nodularin-R	10.5	Spike	P	0 - 30

Quality Assurance Report
Precision

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2250021
Field Sample ID: Alva Boat Ramp

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	70.7	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	70.3	P	30 - 160

Lab Sample ID: 2250022
Field Sample ID: Davis Boat Ramp

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	77.2	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	71.1	P	30 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A105691
Included Lab Sample IDs: 2250025, 2250026

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

Reference Method: EPA 8321B
Run ID: A105699
Included Lab Sample IDs: 2250021, 2250022

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	91.2	89.8	P/P	50 - 160
Cylindrospermopsin	106	93.7	P/P	50 - 160
Desmethyl microcystin LR	73.1	73.4	P/P	50 - 160
Microcystin HilR	75.3	77.3	P/P	50 - 160
Microcystin HtyR	66.8	72.3	P/P	50 - 160
Microcystin LA	90.6	95.9	P/P	50 - 160
Microcystin LF	78.8	86.1	P/P	50 - 160
Microcystin LR	65.8	66.4	P/P	50 - 160
Microcystin LW	70.9	78.4	P/P	50 - 160
Microcystin LY	75.9	75.3	P/P	50 - 160
Microcystin RR	92.1	92.7	P/P	50 - 160
Microcystin WR	71.3	73.6	P/P	50 - 160
Microcystin YR	57.6	67.3	P/P	50 - 160
Nodularin-R	87.3	92.7	P/P	50 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A105711
Included Lab Sample IDs: 2250023, 2250024

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A105754
Included Lab Sample IDs: 2250023, 2250024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	103	P/P	90 - 110
Total-P	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105794
Included Lab Sample IDs: 2250023, 2250024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.6	94.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105920
Included Lab Sample IDs: 2250023, 2250024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	97.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

* 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	96.8	98.8	98.4			0.292
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.0					0.159
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	96.0	95.5			0.522
EPA 365.1 Rev. 2.0	Total-P	104	104	106			2.05
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	96.4	96.7			0.220
EPA 8321B	Anatoxin-a	92.9	94.1	93.5			0.591
	Cylindrospermopsin	104	95.8	100			4.68
	Desmethyl microcystin LR	75.5	74.3	79.2			6.40
	Microcystin HilR	73.5	75.0	81.0			7.63
	Microcystin HtyR	64.8	67.5	74.3			9.60
	Microcystin LA	87.4	84.5	90.4			6.83
	Microcystin LF	83.0	79.0	81.9			3.63
	Microcystin LR	65.9	67.3	72.7			7.33
	Microcystin LW	75.3	72.6	71.0			2.23
	Microcystin LY	73.9	70.5	74.7			5.79
	Microcystin RR	89.9	87.4	91.6			4.70
	Microcystin WR	73.9	74.7	75.7			1.32
	Microcystin YR	58.9	60.4	65.0			7.27
	Nodularin-R	86.8	89.2	99.0			10.5

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2250023, 2250024
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2250023, 2250024
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2250023, 2250024
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2250023, 2250024
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2250025, 2250026
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2250021, 2250022

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	05/26/2021			06/07/2021 13:16	Ping Hua	2250023
	05/26/2021			06/07/2021 13:23	Ping Hua	2250024
EPA 351.2 Rev. 2.0	05/26/2021	05/27/2021 13:11	Benjamin T. Nordmann	06/01/2021 14:24	Virginia P. Brown	2250023
	05/26/2021	05/27/2021 13:11	Benjamin T. Nordmann	06/01/2021 14:26	Virginia P. Brown	2250024
EPA 353.2 Rev. 2.0	05/26/2021			05/27/2021 08:58	Beverly Y. Sanders	2250023
	05/26/2021			05/27/2021 09:00	Beverly Y. Sanders	2250024
EPA 365.1 Rev. 2.0	05/26/2021	05/27/2021 13:22	Yen Ta	05/28/2021 11:11	Shengyu Ding	2250023
	05/26/2021	05/27/2021 13:22	Yen Ta	05/28/2021 11:13	Shengyu Ding	2250024
EPA 365.1 Rev. 2.0 dissolved	05/26/2021			05/26/2021 15:11	Ping Hua	2250025
	05/26/2021			05/26/2021 15:13	Ping Hua	2250026
EPA 8321B	05/26/2021	05/26/2021 11:30	Pramila Ghimire	05/26/2021 18:38	Pramila Ghimire	2250021
	05/26/2021	05/26/2021 11:30	Pramila Ghimire	05/26/2021 18:54	Pramila Ghimire	2250022