

Government of the People's Republic of Bangladesh Ministry of Water Resources River Research Institute http://www.rri.gov.bd



Record Number: 42.03.0000.111.16.001.18.1 Date: 15/01/2024

Subject: Submission of Sediment Samples analysis Report No. SED-10 (2023-24)

Reference: CEGIS Memo No.- 42.06.2626.106.37.001.24.00095; Date: 09.01.2024

Please find a copy of report of the specified subject regarding with River Bed's Sediment Sample Test of different location River along with a bill of Tk. 16500.00 (Sixteen Thousand Five Hundred Only) in connection with this report.

Please pay the bill in crossed cheque in favour of Director General, River Research Institute, Faridpur.

Enclosure:

Report No. SED-10 (2023-24). Bill No. SED-10 (2023-24).

> 15-01-2024 Uma Saha Director (A.C) 02478802456 (Phone) umasaha@gmail.com

Director, Administrative and Finance Division, CEGIS, Dhaka-1212.

(Not in the order of

Attention seniority)

- 1. PS to DG, Director General Office, RRI;
- 2. Principal Scientific Officer, Chief Scientific Officer, Geotechnical Research Directorate, RRI;
- 3. Librarian, Library Division, RRI;
- 4. Accounts Officer, Accounts and Audit Division, RRI and
- 5. Master/Office Copy.



Attachments:

(1) SED-10 (2023-24)_20240114_0001

15-01-2024

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Dr. Engr. Fatima Rukshana Principal Scientific Officer



SEDIMENT CONCENTRATION ANALYSIS REPORT

FOR

TWENTY (20) SEDIMENT SAMPLES COLLECTED FROM THE KIRTONKHOLA RIVER AT BARISAL, THE SUGANDHA RIVER AT BARISHAL, THE BISHKHALI RIVER PATHORGHATA, AND THE SONDHA RIVER, UJIRPUR

CLIENT: CEGIS, DHAKA-1212.

SOIL MECHANICS AND GROUND WATER DIVISION GEOTECHNICAL RESEARCH DIRECTORATE REPORT NUMBER: SED- 10 (2023-2024)

RIVER RESEARCH INSTITUTE FARIDPUR

(FOR OFFICIAL USE ONLY)

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REPORT

1. INTRODUCTION

This report represents the analysis of sediment concentration of twenty 20 sediment samples collected from Kirtonkhola, Shugandha, Bishkhali and Sondha Rivers by the field personnel of CEGIS under a feasibility study of Bangladesh Water Development Board (BWDB) projects, during the month November 2023. In this regard the 20 sediment samples were received at River Research Institute laboratory on the date 10.01.2024 from Director, Administration and Finance Division, CEGIS, Dhaka vide office memo no. 42.06.2626.106.37.001.24.00095, date: 09.01.2024.

2. LABORATORY TESTING

2.1 Sediment Concentration Test

All the suspended sediment samples were analyzed in the Sediment Laboratory of River Research Institute, Faridpur for determining their sediment concentration. Suspended sediment portion of each sample was separated from the liquid portion by using filter paper (Whatman, 42 ASHLESS). Filter papers with the retained materials were oven dried. The results have been shown in parts-per-million (ppm) by weight in Attachment-I.

3. APPENDIX

- A. Bill of this Report no.: SED-10 (2023-2024)
- B. List of personnel associated with testing works, preparation and publication of the report.

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Compiled by: 8. Fzed 124 (SO)

Checked by: 14.01. 2024 (SSO)

Recommended by: 14.01.24 (PSO)

Approved by:

(Uma Saha)
Director (Additional Charge)
Geotechnical Research Directorate
River Research Institute

Faridpur

Table-1

Results of Sediment Concentration studies for the 4 samples collected from Babuganj during the month of November 2023.

SI. No.	Date of Collection	Time	Bulk Suspended sediment Concentration in ppm.	Remarks
1	2	3	4	5
1	Not provided by	09.00 am	28.00	
2	Client	11.30 am	24.90	
3		02.00 pm	28.30	
4		04.30 pm	44.60	

Table-2

Results of Sediment Concentration studies for the 4 samples collected from the Kirtonkhola River at Barisal during the month of November 2023

Sl. No.	Date of collection	Time	Bulk suspended sediment concentration in ppm	Remarks
1	2	3	4	5
1	11/11/2023	09.00 am	43.40	
2	11/11/2023	12.00 pm	43.50	
3	11/11/2023	15.00 pm	47.40	
4	11/11/2023	18.00 pm	44.80	

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Table-3

Results of Sediment Concentration studies for the 4 samples collected from the Shugandha River at Jhalokathi during the month of November 2023

SI. No.	Date of collection	Time	Bulk suspended sediment concentration in ppm	Remarks
1	2	3	4	5
1	12/11/2023	8.40 am	46.0	
2	12/11/2023	11.40 am	47.2	
3	12/11/2023	2.40 pm	47.5	
4	12/11/2023	5.40 pm	56.8	

Table-4

Results of Sediment Concentration studies for the 4 samples collected from the Bishkhali River at Pathorghata during the month of November 2023.

SI. No.	Date of Collection	Time	Bulk Suspended sediment .Concentration in ppm.	Remarks
1	2	3	4	5
1	Not provided by	08.00 am	21.60 *	
2	Client	11.00 am	108.60	
3		02.00 pm	135.30	
4		06.00 pm	39.40	

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Table-5

Results of Sediment Concentration studies for the 4 samples collected from the Shondha
River at Ujirpur during the month of November 2023.

SI. No.	Date of Collection	Time	Bulk Suspended sediment Concentration in ppm.	
1	2	3	4	5
1	13/11/2023	9.30 am	74.6	
2	13/11/2023	12.30 pm	47.4	
3	13/11/2023	3.30 pm	83.0	
4	13/11/2023	6.30 pm	73.5	

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River Research Institute

Sediment Analysis Bill

SEDIMENT, CHEMICAL & WATER POLLUTION DIVISION

Geotechnical Research Directorate River Research Institute

Faridpur

Client:

Administration and Finance

Division

Director

Center for Environmental and Geographic Information Services

(CEGIS)

Date: 14/01/2024

Bill No.: SED- 10 (2023-2024)

Date:9/01/2024

Client Memo: 42.06.2626.106.37.001.24.00095,

Dhaka.

Name of the River: Kirtonkhola, Sugondha, Sondha and Bishkhali Rivers. Duration of Sample Collection: November 2023.

Report No.: SED-10 (2023-2024)

SI. No.	Name of Sediment Tests	Rate Per Sample in Taka	No. of Sample Tested	Cost in Taka	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1	Sediment Concentration	825.00	20	16,500.00	
2	Specific Gravity	1725.00			
3	Mechanical Analysis by				
	a. Sieve	2850.00			
4	b. Hydrometer (Excluding Specific Gravity)	2850.00			
	c. Sieve & Hydrometer Combined (Excluding Specific Gravity)	5250.00			
5	Organic Matter Content by Loss on Ignition Test	3375.00			
6	Particle Size Analysis by Mervern Particle Size Analyzer	6000.00			
7	Carbon+Hydrogen+Nitrogen by CHNS/O Analyzer	5000.00			
8	Carbon+Hydrogen+Nitrogen+Sulfar/Oxy gen by CHNS/O Analyzer	8000.00			
	Total above			16500.00	

(In words: Taka Sixteen Thousand Five Hundred Only)

(Sumiya Ferdhous) Scientific Officer Geotechnical Research Directorate River Research Institute Faridpur

Senior Scientific Officer Geotechnical Research Directorate River Research Institute Faridpur

(Dr. Fatima Rukshana) Principal Scientific Officer Geotechnical Research Directorate River Research Institute Faridpur

4.01.2024 Director (A.C) Geotechnical Research Directorate River Research Institute Faridpur

Appendix-B

List of personnel associated with testing works, preparation and publication of the report:

Sl. No.	Name	Designation		
1.	Uma Saha	Director (Additional Charge		
2.	Dr. Fatima Rukshana	Principal Scientific Officer		
3.	Md. Moniruzzaman	Senior Scientific Officer		
4.	Sumiya Ferdhous	Scientific Officer		
5.	Md. Abdul Mazid Sarker	Lab Technician-C		
6.	Md. Jana Alam	Lab Technician-B		
7.	Md. Rejaul Karim	Lab Technician-B		
8.	Md. Ramjan Ali Molla	Lab Technician-A		
9.	Sheikh Md. Rasel	Lab Technician-A		
10.	Md. Ikramul Haque	Lab Technician-A		
11.	Md. Mahabubur Rahman	Office Assistant		





House Birch and #23.0 Cutchets T. Dhaka-1212. Bangrafe in

Safeguarding Environment for Future

Director General River Research Institute

Our re: 47.06.2026.106.57.001.24.00095

Date 9 Jan. by 2024

Subject. Request for testing of sectionen concentration of Kirtonkhola, Shugandha and Bistishali Rivers,

Dear Sir

I have the pleasure to inform you that CEGIS is carrying out a feasibility study of Bangladesh Water Development Board (BWDB). Under these projects, 20 (Twenty) sediment samples from different locations were collected for the sediment concentration analysis.

Therefore, I would like to request you to take necessary action for the testing of collected samples for the study purpose.

Regards

IT Cul sved Afzaiul Abedin, psc (Retd.)

Distance Cold

Administration and Finance Division, CEGIS

Enclosure:

20 sediment concentration samples.



Center for Environmental and Geographic Information Services



Public Trust, Ministry of Water Resources House # 6, Road # 23/C, Gulshan 1, Dhaka-1212, Bangladesh

Safeguarding Environment for Future -

To Director General River Research Institute Faridpur

Our ref: 42.06.2626.106.37.001.24.00095

Date: 9 January 2024

Subject: Request for testing of sediment concentration of Kirtonkhola, Shugandha and Bishkhali Rivers.

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Regards

LE Col Syed Afzalul Abedin, psc (Retd.)

Administration and Finance Division, CEGIS

Enclosure:

20 sediment concentration samples.

