



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



Commemorative Number: ৪২.০৩.০০০০.১১১.১৬.০০১.১৮.৩৮

Date: ১৩ অগ্রহায়ণ ১৪৩০ বঙ্গাব্দ
২৮ নভেম্বর ২০২৩ খ্রিস্টাব্দ

Subject: Subject: Submission of analysis report of testing soil sample of Meghna and Tetulia Rivers under “Feasibility Study from Bhola to Barishal Gas Transmission Pipeline Project”.

Source: Ref. No.: Memo no. - 42.06.2626.119.37.001.23.05259, Date: 23 .11.2023

According to above mentioned subject, the report for determination of particle size, textural class and D 50 of 12 river bed Sediment report no.SED-06 (2023-24) is being sent herewith including bill of TK 72,000.00 (Taka Seventy Two Thousand only).

You are requested to pay the check in favor of Director General, River Research Institute, Faridpur.

২৮-১১-২০২৩

Uma Saha
Director (Additional Charges)
02478802456 (phone)

Director (in-charge), Power, Energy, and Mineral Resources Division CEGIS, Dhaka.

Commemorative Number: ৪২.০৩.০০০০.১১১.১৬.০০১.১৮.৩৮/১ (৫)

Date: ১৩ অগ্রহায়ণ ১৪৩০ বঙ্গাব্দ
২৮ নভেম্বর ২০২৩ খ্রিস্টাব্দ

Kind regards(not in order of seniority):

1. Principal Scientific Officer, River Research Institute;
2. Librarian, Library Branch, River Research Institute;
3. Private Secretary to Director General, River Research Institute;
4. Accounts Officer, Accounts and Audit Branch, River Research Institute and
5. Office/Master Copy.



২৮-১১-২০২৩

Dr. Fatima Rukshana
Principal Scientific Officer



SEDIMENT TESTING REPORT

**ANALYSIS OF RIVER BED SEDIMENT SAMPLES OF MEGHNA AND
TETULIA RIVERS UNDER “FEASIBILITY STUDY FROM BHOLA TO
BARISHAL GAS TRANSMISSION PIPELINE PROJECT”**

**CLIENT: CENTER FOR ENVIRONMENTAL AND GEOGRAPHIC
INFORMATION SERVICES (CEGIS)**

SEDIMENT, CHEMICAL AND WATER POLLUTION DIVISION

GEOTECHNICAL RESEARCH DIRECTORATE

REPORT NUMBER: SED- 06 (2023-2023)

RIVER RESEARCH INSTITUTE

FARIDPUR

(FOR OFFICIAL USE ONLY)

CONTENTS

Sl. No.	Item	Page No.
1.	Introduction	1
2.	Laboratory testing	1
3.	Result sheet of particle size with percentage, textural class and D_{50} (12 nos. sample, 1 of 1 form)	3-14
4.	Sediment Analysis Bill (Appendix-A)	15
5.	List of Research Personnel (Appendix-B)	16
6.	Requisition of the Work (Appendix-C)	17

REPORT

1. INTRODUCTION

This report is based on the particle size analysis of 12 samples collected from the river bed of Meghna and Tetulia Rivers. The samples were collected by the survey of Center for Environmental and Geographic Information Services (CEGIS), Dhaka from Meghna and Tetulia Rivers under “Feasibility Study from Bhola to Barishal Gas Transmission Pipeline Project” vide memo no:42.06.2626.119.37.001.23.05259, date:23/11/2023. The bed material samples were sent in snapping poly bag to the Sediment Laboratory of River Research Institute (RRI), Faridpur to analyze the particle size, the soil textural classification and the value of D_{50} .

2. LABORATORY TESTING

2.1 Sample preparation

After receiving the river bed samples in the laboratory, all the samples were visually examined to get a rough idea of the samples such as sand, silt or clay classification. The samples were mixed thoroughly within the bag following transfer to the drying can and dried overnight in oven at 110° C. The samples were gently powdered using mortar & pestle and sieved through $< 2\text{mm}$ mesh size. Sample passing from the sieve were kept in the can to analysis particle size using Melvern Particle Size Analyzer (Mastersizer 3000).

2.2 Laser Diffraction Particle Size Analysis

Laser Diffraction Particle Size Analysis of the bed material samples have been done using Marvern Mastersizer 3000 instrument with Hydro Ev dispersion unit in the laboratory. This laser diffraction particle size analyzer is able to effectively measure particles ranging from $0.01\text{-}3500\mu\text{m}$ in diameter. Two light sources, a red light with the wavelength of 633nm and a LED blue light of 470nm are used in this instrument.

Water was used as a dispersant and has a refractive index 1.33. The particle refractive index and the absorption index were set according to the laboratory trial depending on the visual inspection of the sample satisfying the weighted residual. Dry samples were added slowly to the dispersion unit the required obscuration level was obtained for the each sample.



During each measurement, 3500 rpm stirring speed and 4 minutes 100% ultrasound were used for sufficient dispersion of the sample. Five measurements were performed and the results were averaged for each sample.

For soil textural classification, particle size with percentage of samples are analyzed according to U.S. Department of Agriculture (USDA) system.

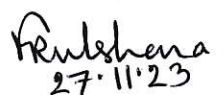
Particle size analysis including percentage, textural class and D_{50} value of individual sediment sample (average) have been shown in the separate following pages (1 of 1 attachment according to sample ID)

3. APPENDIX

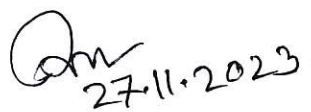
- A. Bill of this Report no.: SED-06 (2023-2024)
- B. List of personnel associated with testing works, preparation and publication of the report.
- C. Requisition of the Work

Compiled by:  (SO)
27.11.23

Checked by:  (SSO)
27.11.23

Recommended by:  (PSO)
27.11.23

Approved by:


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

Measurement Details

Operator Name Nayan
Sample Name Average of 'R1 Bank Erosion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 10:22:23 AM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

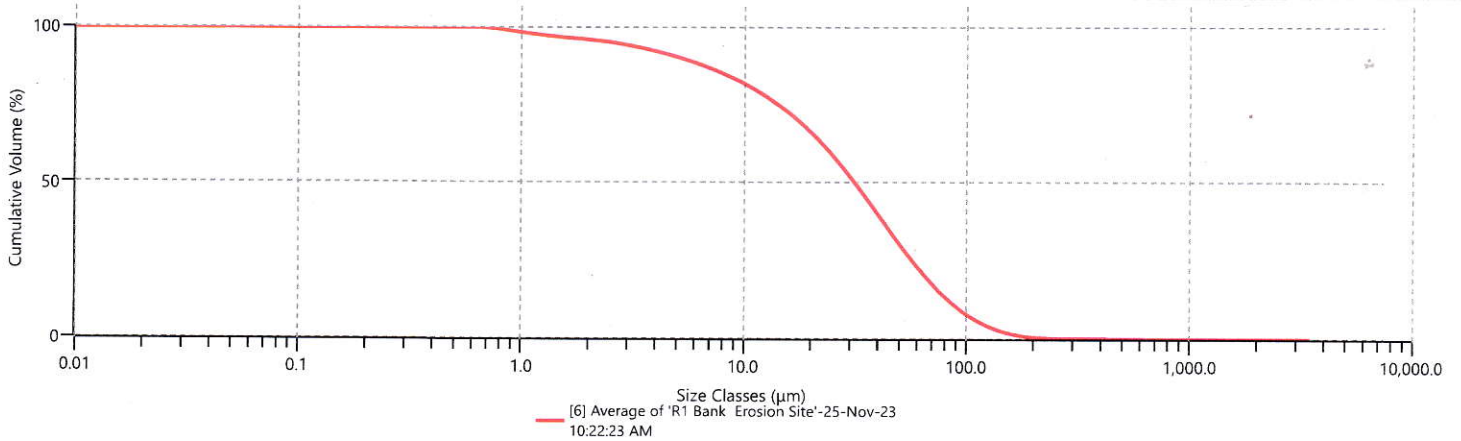
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.82 %
Laser Obscuration 11.59 %

Results (D-Values)

Dv (10) 5.27 μm
Dv (50) 31.5 μm
Dv (60) 40.0 μm
Dv (90) 92.0 μm

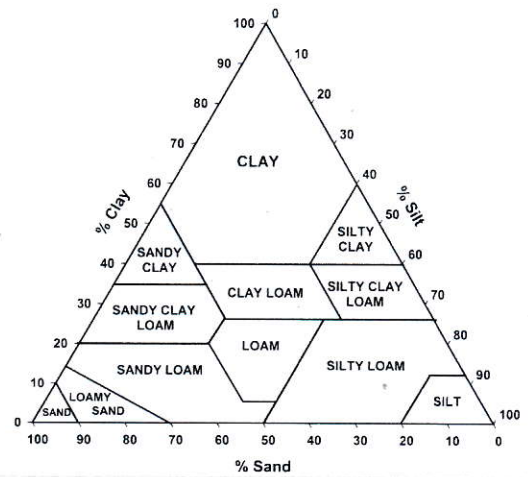
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2 μm)	3.96
Silt (2 - 50 μm)	65.48
Very fine sand (50-100 μm)	22.49
Fine sand (100-250 μm)	7.79
Medium sand (250-500 μm)	.18
Coarse sand (500-1000 μm)	.1
Very coarse sand (1000-2000 μm)	0
Total sand (50-2000 μm)	30.56

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silty loam

S. P. ...
 (Scientific Officer)

[Signature]
 (Senior Scientific Officer)

[Signature]
 (Principal Scientific Officer)

[Signature]
 (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R1 Bank Erosion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 10:22:23 AM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

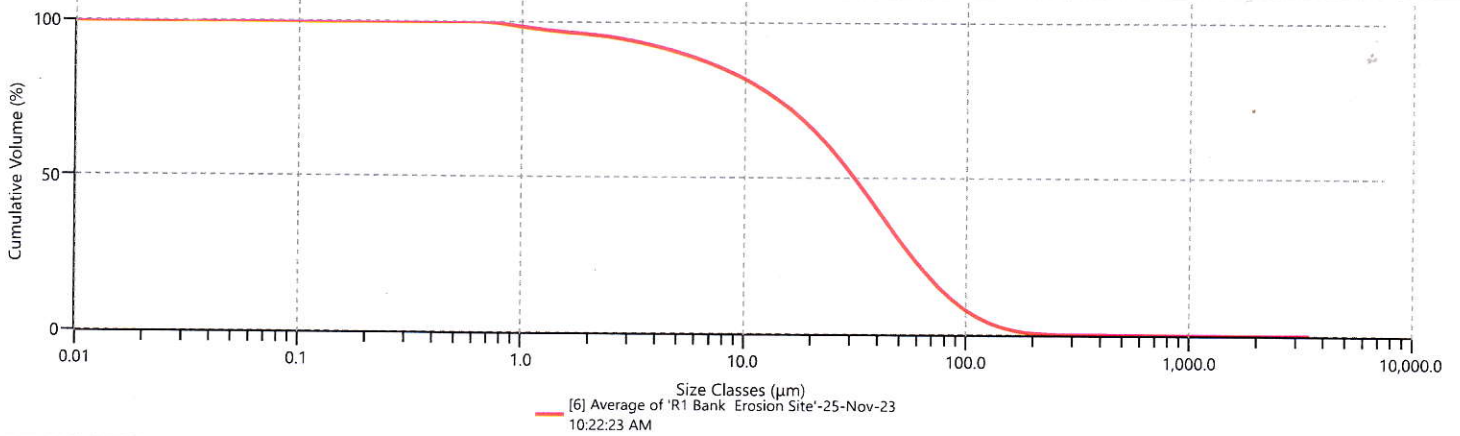
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.82 %
Laser Obscuration 11.59 %

Results (D-Values)

Dv (10) 5.27 µm
Dv (50) 31.5 µm
Dv (60) 40.0 µm
Dv (90) 92.0 µm

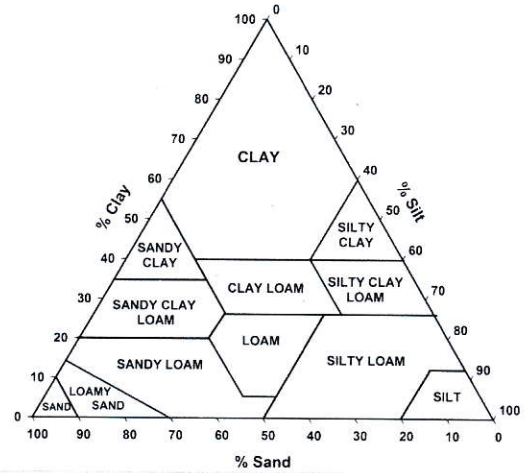
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	3.96
Silt (2 - 50µm)	65.48
Very fine sand (50-100µm)	22.49
Fine sand (100-250µm)	7.79
Medium sand (250-500µm)	.18
Coarse sand (500-1000µm)	.1
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	30.56

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silty loam

S. Bradshaw
 (Scientific Officer)

[Signature]
 (Senior Scientific Officer)

Faulshame
 (Principal Scientific Officer)

[Signature]
 (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R1 Bank Accretion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 10:45:17 AM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

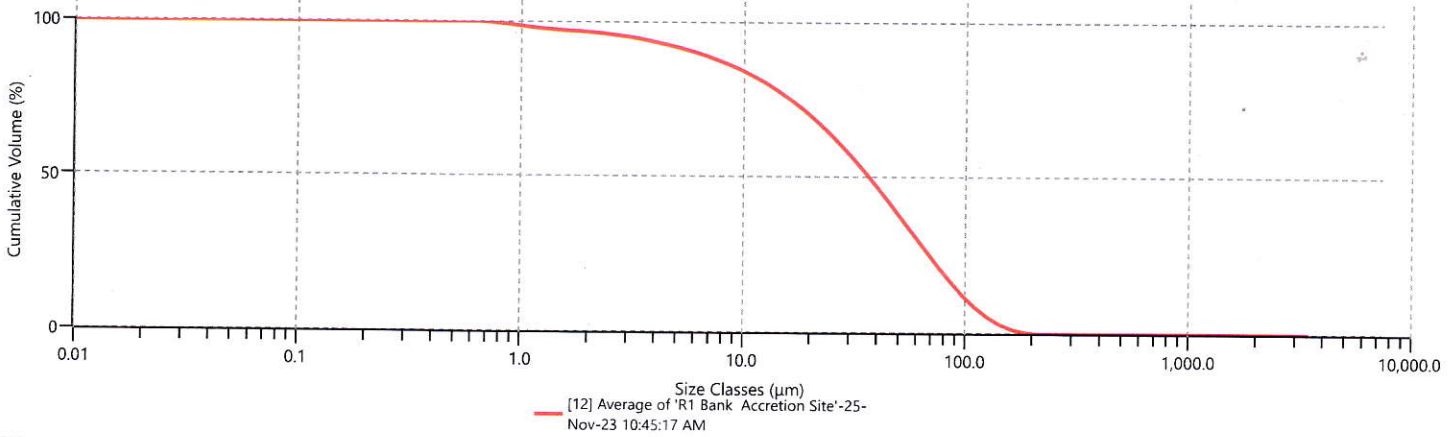
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.79 %
Laser Obscuration 12.10 %

Results (D-Values)

Dv (10) 6.25 µm
Dv (50) 36.9 µm
Dv (60) 47.7 µm
Dv (90) 106 µm

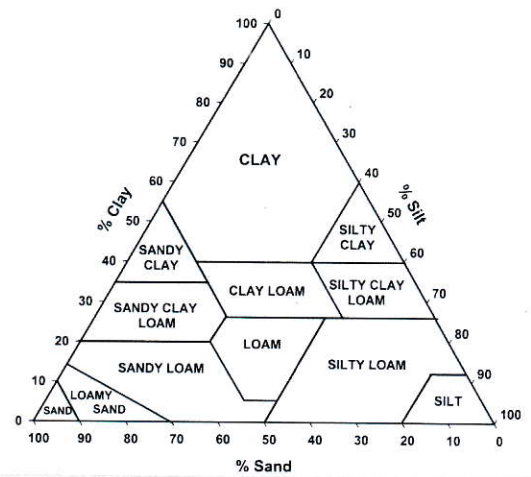
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	3.29
Silt (2 - 50µm)	58.56
Very fine sand (50-100µm)	26.56
Fine sand (100-250µm)	11.58
Medium sand (250-500µm)	0
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	38.15

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silty loam



(Scientific Officer)



(Senior Scientific Officer)



(Principal Scientific Officer)



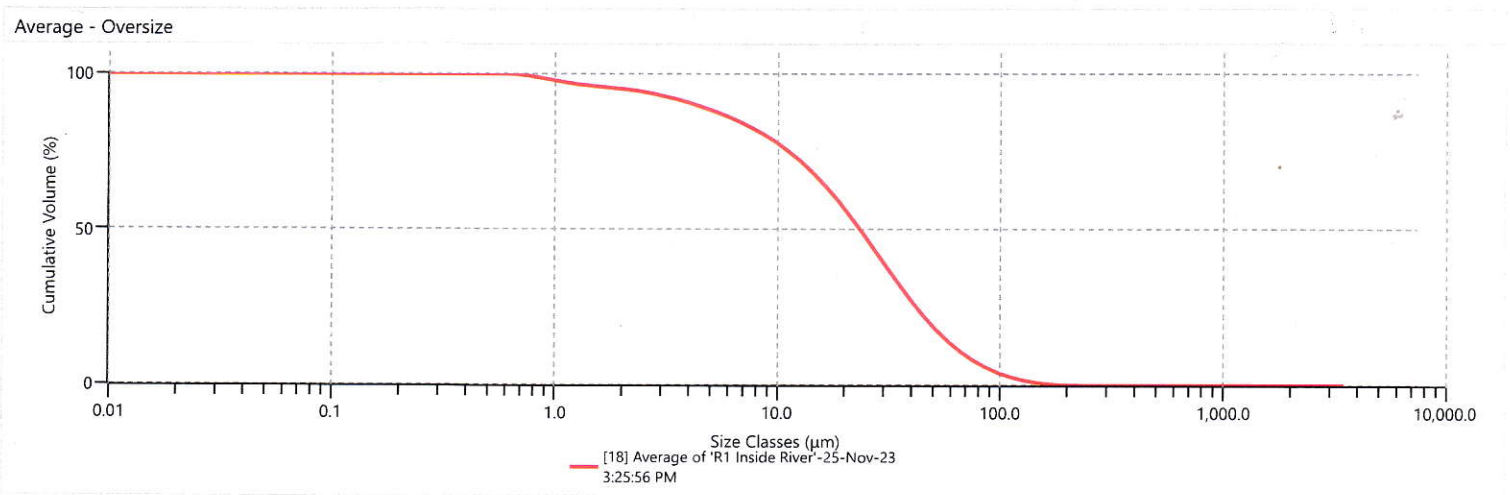
(Director (A.C.))

Measurement Details	
Operator Name	Nayan
Sample Name	Average of 'R1 Inside River'
SOP File Name	HydroEV.cfg

Measurement Details	
Analysis Date Time	25-Nov-23 3:25:56 PM
Instrument Type	Mastersizer3000
Software Version	3.81.1908.020

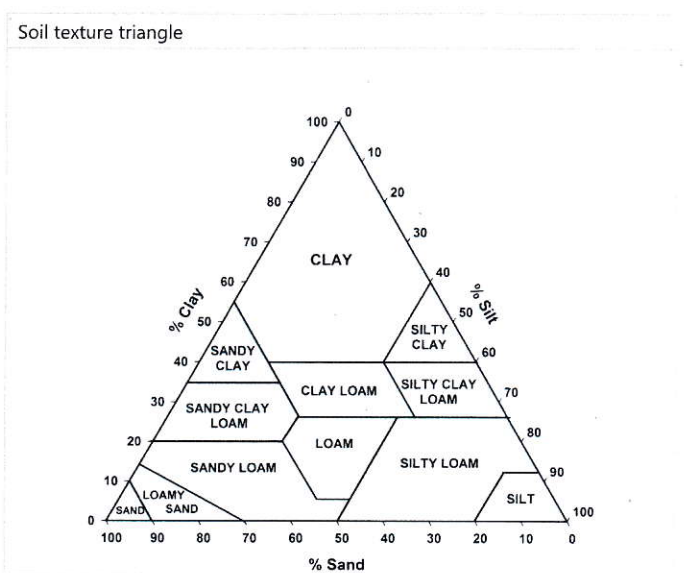
Analysis	
Particle Name	Sediment
Dispersant Name	Water
Weighted Residual	0.79 %
Laser Obscuration	11.84 %

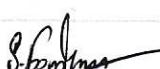



Results (D-Values)	
Dv (10)	4.29 μm
Dv (50)	23.5 μm
Dv (60)	29.6 μm
Dv (90)	69.5 μm



USDA Soil Classification

Fraction	% in
Clay (<2 μm)	4.87
Silt (2 - 50 μm)	76.03
Very fine sand (50-100 μm)	15.15
Fine sand (100-250 μm)	3.94
Medium sand (250-500 μm)	.01
Coarse sand (500-1000 μm)	0
Very coarse sand (1000-2000 μm)	0
Total sand (50-2000 μm)	19.1



 (Scientific Officer)
  (Senior Scientific Officer)
  (Principal Scientific Officer)
  (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R2 Bank Erosion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 3:36:32 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

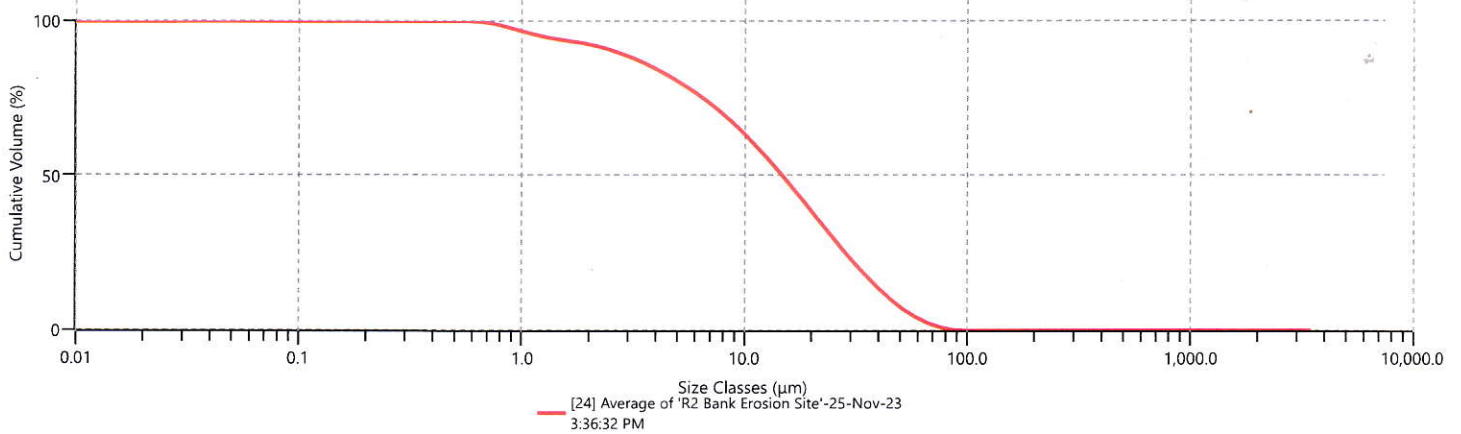
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 1.26 %
Laser Obscuration 13.08 %

Results (D-Values)

Dv (10) 2.66 µm
Dv (50) 14.8 µm
Dv (60) 19.2 µm
Dv (90) 45.4 µm

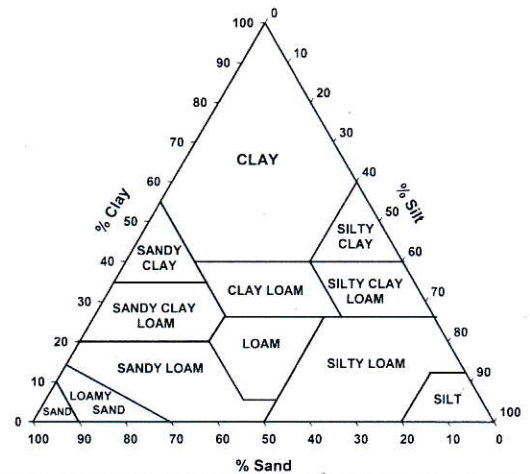
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	7.63
Silt (2 - 50µm)	84.68
Very fine sand (50-100µm)	7.69
Fine sand (100-250µm)	0
Medium sand (250-500µm)	0
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	7.69

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silt


 (Scientific Officer)


 (Senior Scientific Officer)


 (Principal Scientific Officer)


 (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R2 Bank Accretion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 3:44:15 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

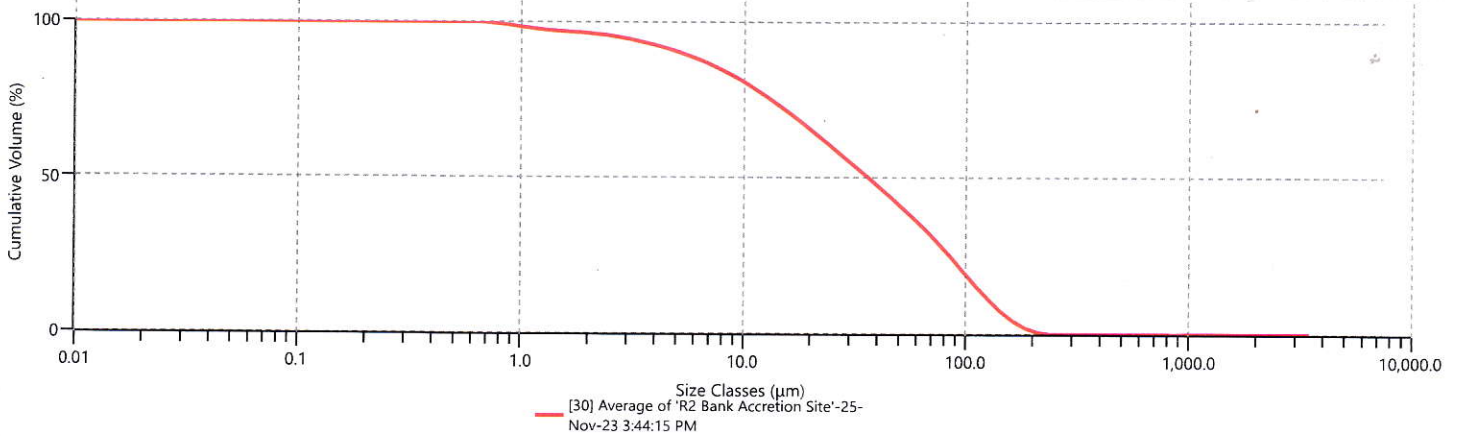
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.85 %
Laser Obscuration 12.79 %

Results (D-Values)

Dv (10) 5.25 µm
Dv (50) 36.4 µm
Dv (60) 52.8 µm
Dv (90) 132 µm

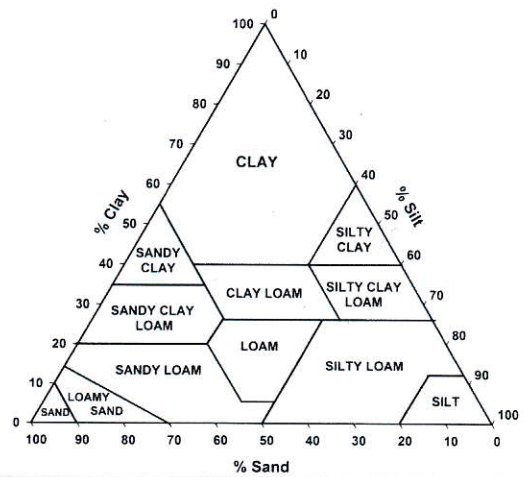
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	3.67
Silt (2 - 50µm)	54.81
Very fine sand (50-100µm)	22.2
Fine sand (100-250µm)	19.31
Medium sand (250-500µm)	.01
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	41.52

Soil texture triangle

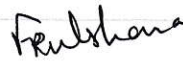



Soil Texture according to USDA

Soil Texture: Silty loam


 (Scientific Officer)


 (Senior Scientific Officer)


 (Principal Scientific Officer)


 (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R2 Inside River'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 3:52:37 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

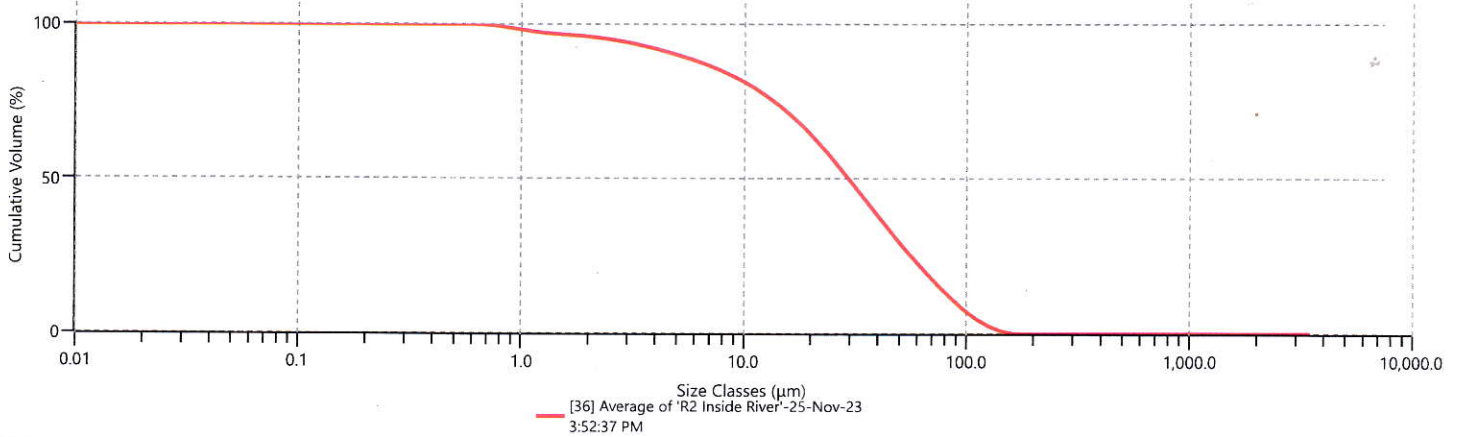
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.87 %
Laser Obscuration 12.89 %

Results (D-Values)

Dv (10) 5.05 µm
Dv (50) 29.6 µm
Dv (60) 38.2 µm
Dv (90) 90.3 µm

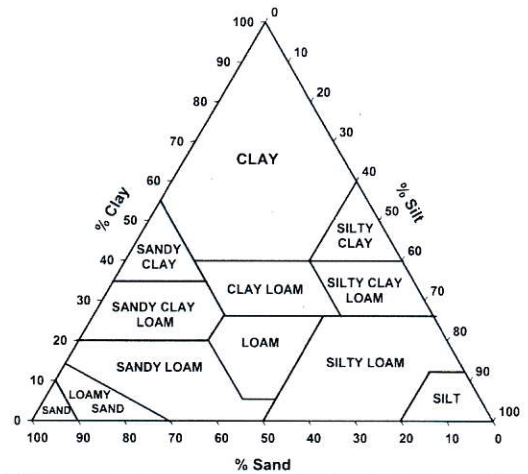
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	4.09
Silt (2 - 50µm)	66.27
Very fine sand (50-100µm)	22.36
Fine sand (100-250µm)	7.28
Medium sand (250-500µm)	0
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	29.64

Soil texture triangle




Soil Texture according to USDA

Soil Texture: Silty loam


 (Scientific Officer)


 (Senior Scientific Officer)


 (Principal Scientific Officer)


 (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R3 Bank Erosion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 4:02:31 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

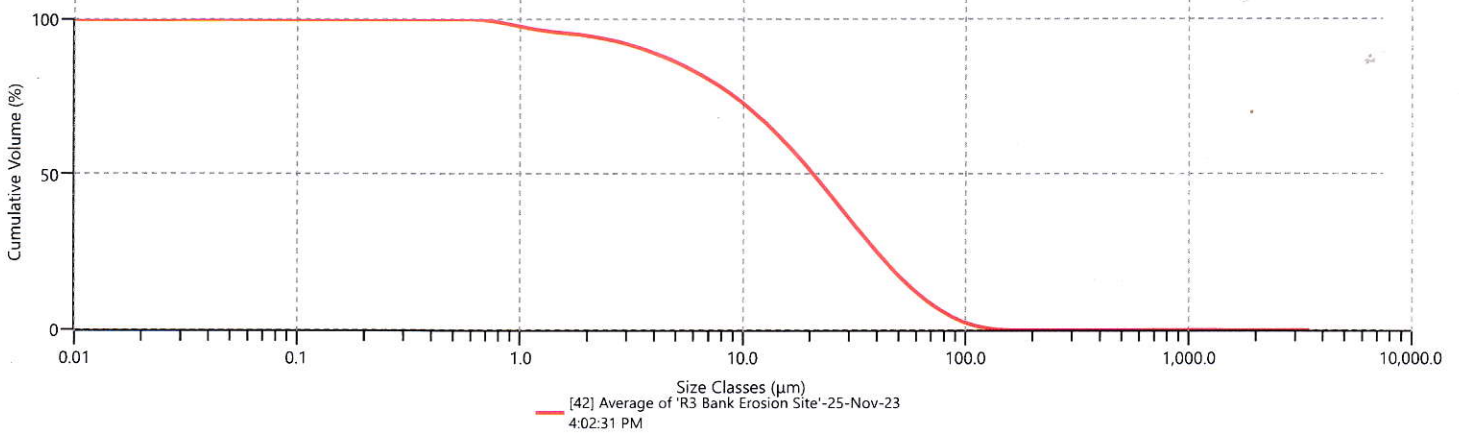
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.83 %
Laser Obscuration 13.67 %

Results (D-Values)

Dv (10) 3.67 µm
Dv (50) 20.7 µm
Dv (60) 27.0 µm
Dv (90) 65.8 µm

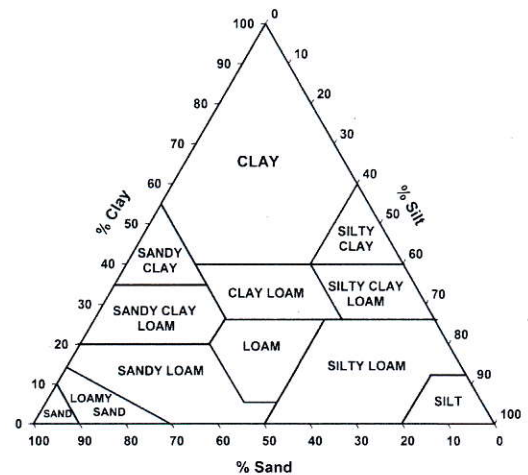
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	5.42
Silt (2 - 50µm)	76.89
Very fine sand (50-100µm)	15.17
Fine sand (100-250µm)	2.52
Medium sand (250-500µm)	0
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	17.69

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silty loam

P. Bhatia

(Scientific Officer)

[Signature]

(Senior Scientific Officer)

R. Kulkarni

(Principal Scientific Officer)

[Signature]

(Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R3 Bank Accretion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 4:10:42 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

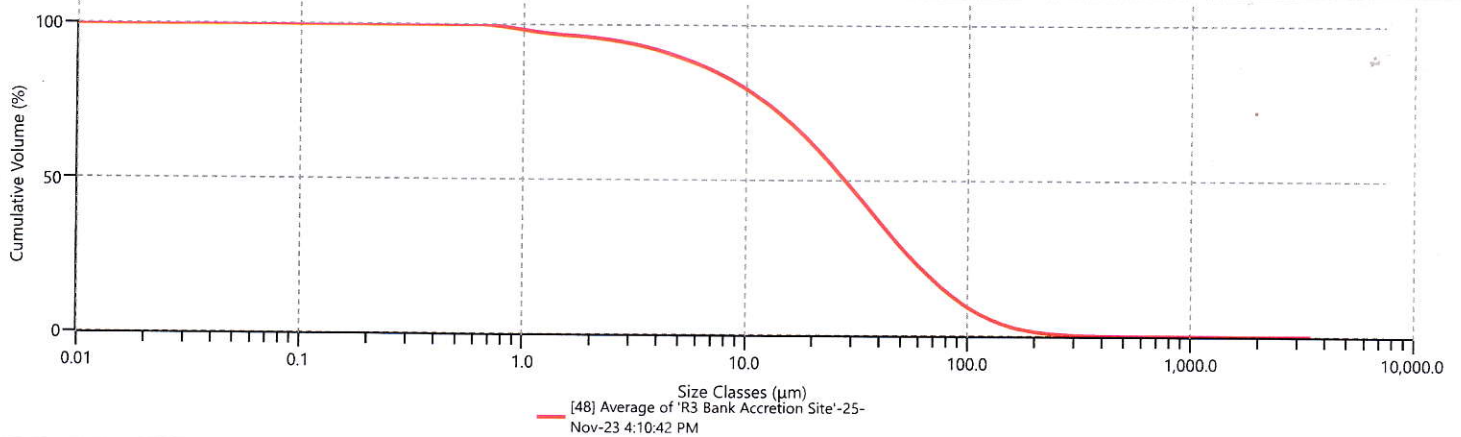
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.74 %
Laser Obscuration 12.95 %

Results (D-Values)

Dv (10) 4.89 µm
Dv (50) 28.2 µm
Dv (60) 36.9 µm
Dv (90) 97.3 µm

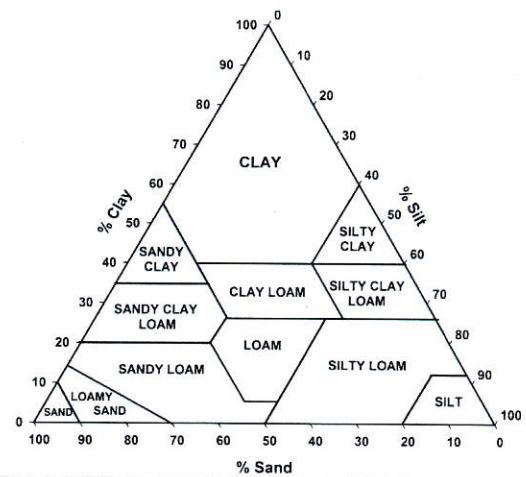
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	4.06
Silt (2 - 50µm)	67.03
Very fine sand (50-100µm)	19.45
Fine sand (100-250µm)	8.78
Medium sand (250-500µm)	.65
Coarse sand (500-1000µm)	.03
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	28.91

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silty loam

(Signature)
 (Scientific Officer)

(Signature)
 (Senior Scientific Officer)

(Signature)
 (Principal Scientific Officer)

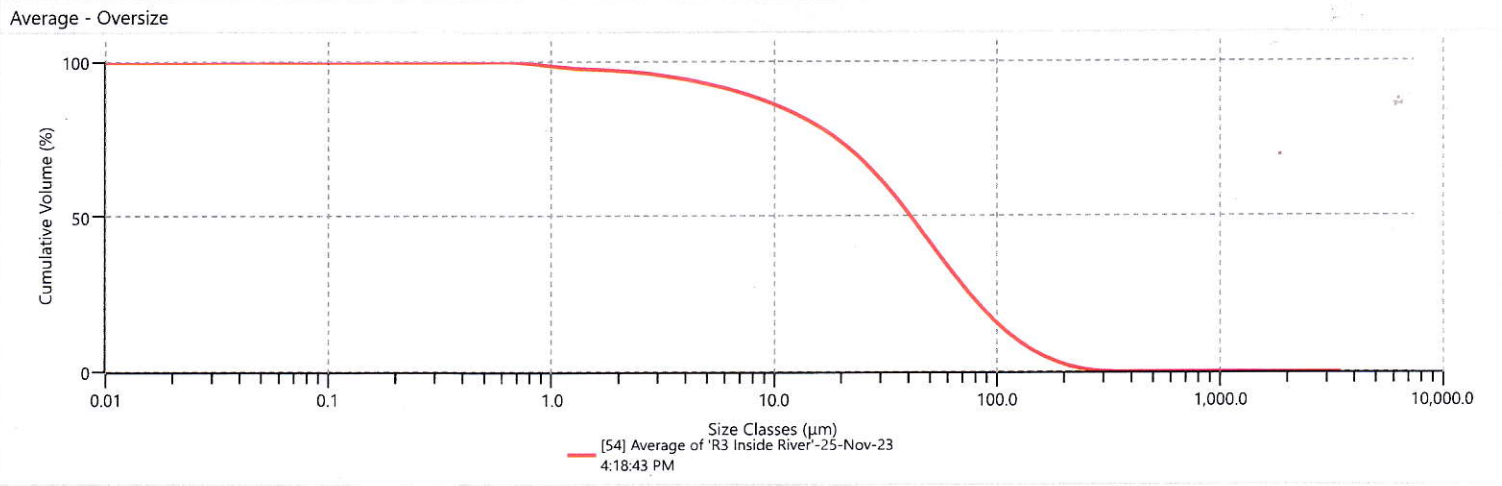
(Signature)
 (Director (A.C.))

Measurement Details	
Operator Name	Nayan
Sample Name	Average of 'R3 Inside River'
SOP File Name	HydroEV.cfg

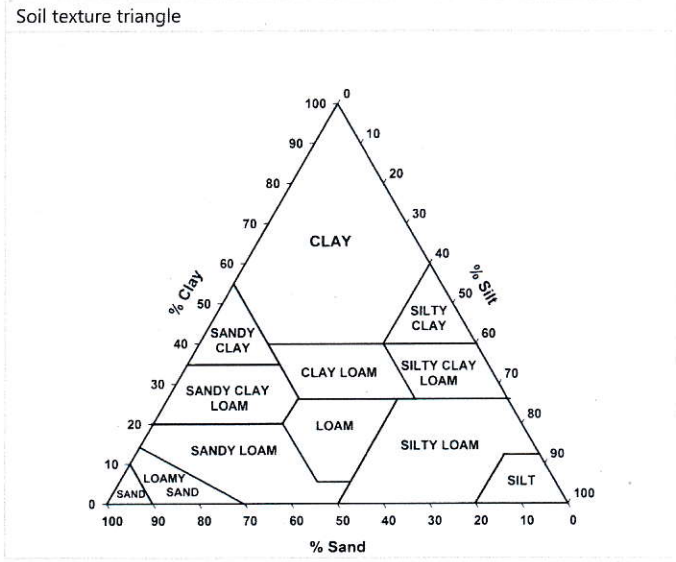
Measurement Details	
Analysis Date Time	25-Nov-23 4:18:43 PM
Instrument Type	Mastersizer3000
Software Version	3.81.1908.020

Analysis	
Particle Name	Sediment
Dispersant Name	Water
Weighted Residual	0.67 %
Laser Obscuration	11.60 %

Results (D-Values)	
Dv (10)	7.03 µm
Dv (50)	41.0 µm
Dv (60)	52.1 µm
Dv (90)	125 µm



USDA Soil Classification		
Fraction	% in	
Clay (<2µm)	3	
Silt (2 - 50µm)	55.24	
Very fine sand (50-100µm)	25.82	
Fine sand (100-250µm)	15.09	
Medium sand (250-500µm)	.85	
Coarse sand (500-1000µm)	0	
Very coarse sand (1000-2000µm)	0	
Total sand (50-2000µm)	41.76	



Soil Texture according to USDA

Soil Texture: Silty loam

 (Scientific Officer)
  (Senior Scientific Officer)
  (Principal Scientific Officer)
  (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R4 Bank erosion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 4:29:14 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

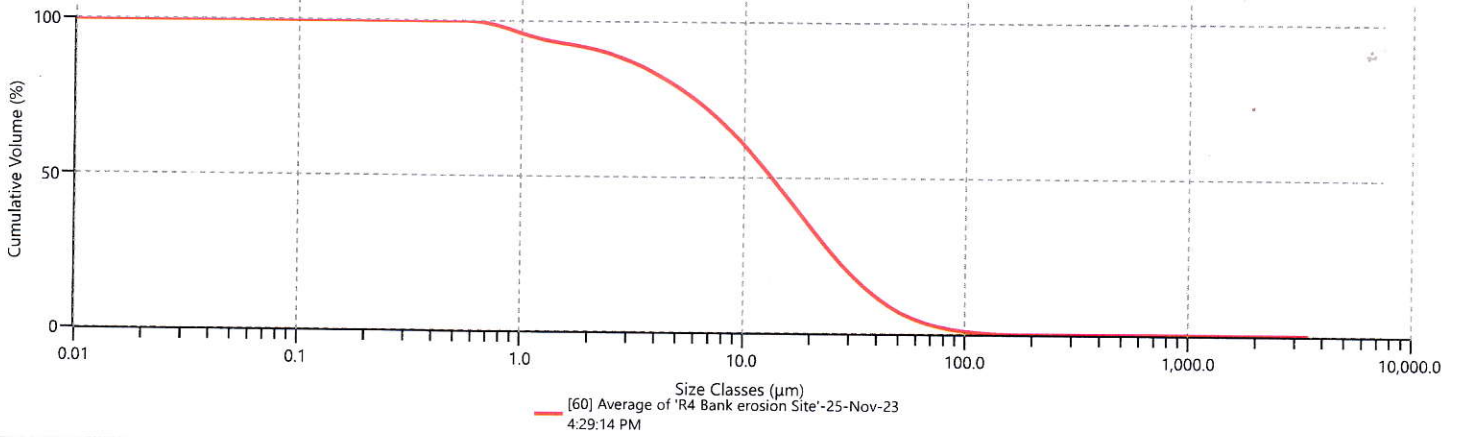
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 1.06 %
Laser Obscuration 12.94 %

Results (D-Values)

Dv (10) 2.42 µm
Dv (50) 13.5 µm
Dv (60) 17.4 µm
Dv (90) 43.3 µm

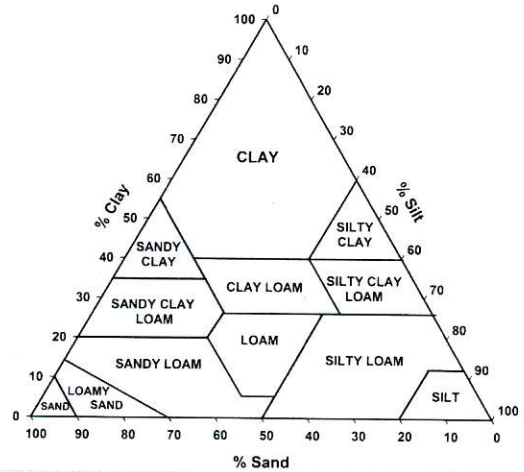
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	8.54
Silt (2 - 50µm)	84.2
Very fine sand (50-100µm)	6.32
Fine sand (100-250µm)	.94
Medium sand (250-500µm)	0
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	7.26

Soil texture triangle



Soil Texture according to USDA

Soil Texture: Silt

[Signature] (Scientific Officer) *[Signature]* (Senior Scientific Officer) *[Signature]* (Principal Scientific Officer) *[Signature]* (Director (A.C.))

Measurement Details

Operator Name Nayan
Sample Name Average of 'R4 Bank Accretion Site'
SOP File Name HydroEV.cfg

Measurement Details

Analysis Date Time 25-Nov-23 4:37:41 PM
Instrument Type Mastersizer3000
Software Version 3.81.1908.020

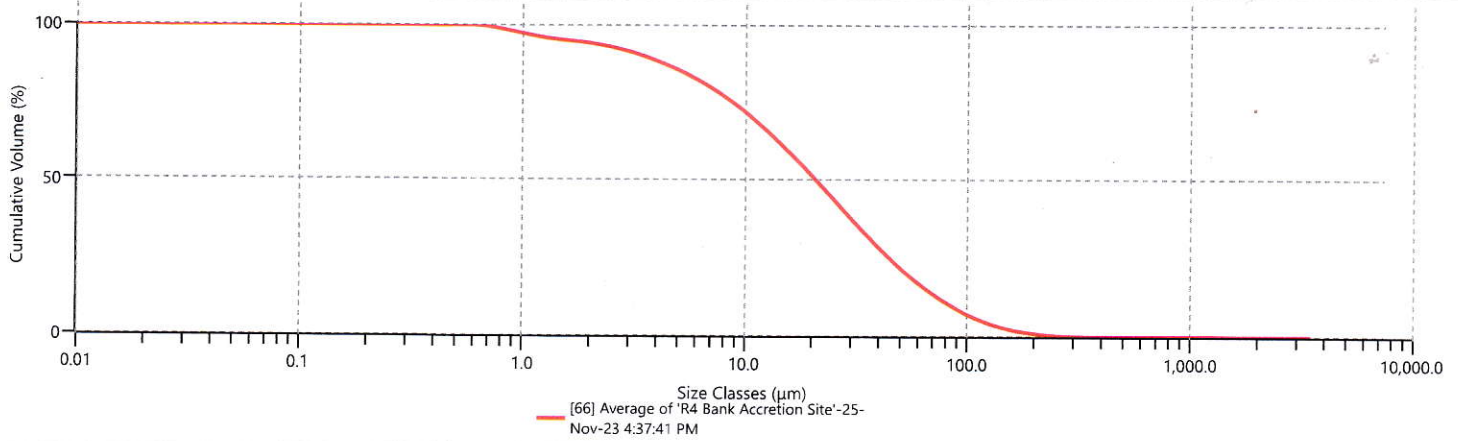
Analysis

Particle Name Sediment
Dispersant Name Water
Weighted Residual 0.82 %
Laser Obscuration 12.76 %

Results (D-Values)

Dv (10) 3.50 µm
Dv (50) 20.9 µm
Dv (60) 28.1 µm
Dv (90) 84.5 µm

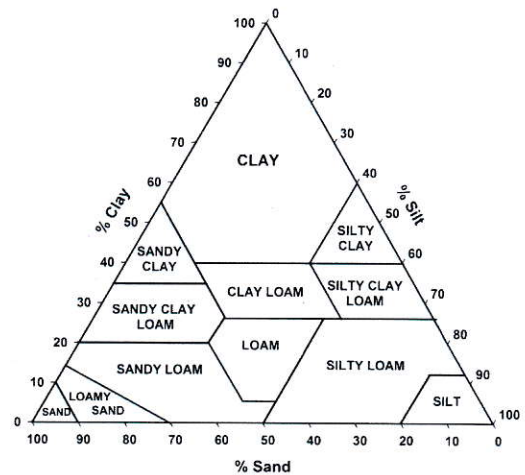
Average - Oversize



USDA Soil Classification

Fraction	% in
Clay (<2µm)	5.83
Silt (2 - 50µm)	72.18
Very fine sand (50-100µm)	14.78
Fine sand (100-250µm)	6.86
Medium sand (250-500µm)	.35
Coarse sand (500-1000µm)	0
Very coarse sand (1000-2000µm)	0
Total sand (50-2000µm)	21.99

Soil texture triangle

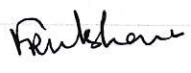


Soil Texture according to USDA

Soil Texture: Silty loam


 (Scientific Officer)


 (Senior Scientific Officer)


 (Principal Scientific Officer)

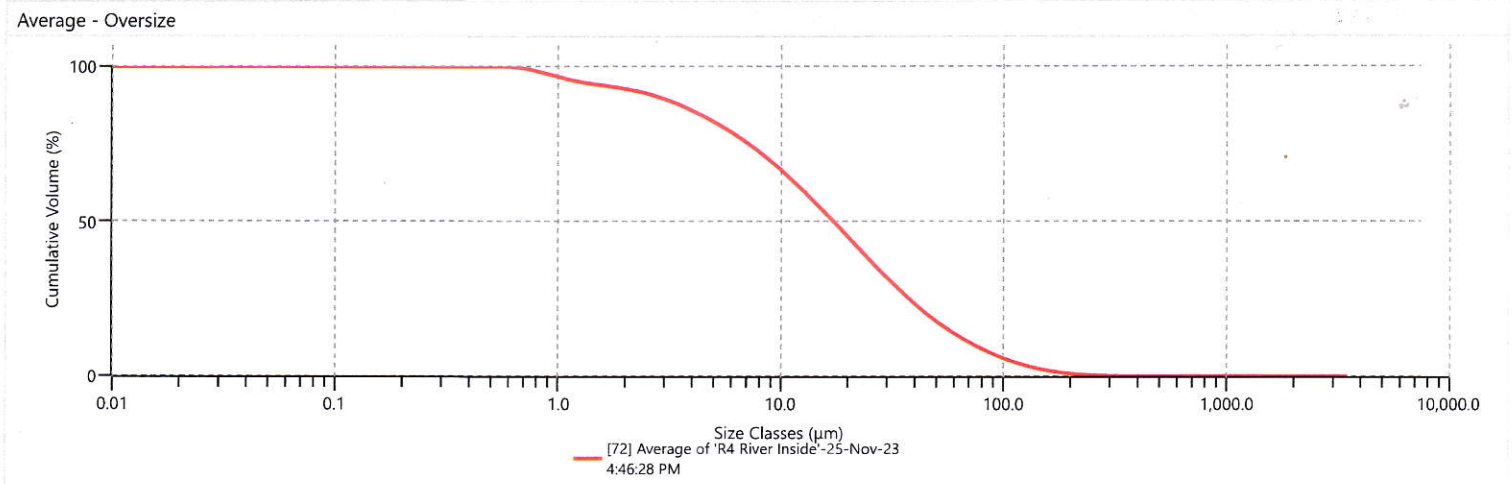

 (Director (A.C.))

Measurement Details	
Operator Name	Nayan
Sample Name	Average of 'R4 River Inside'
SOP File Name	HydroEV.cfg

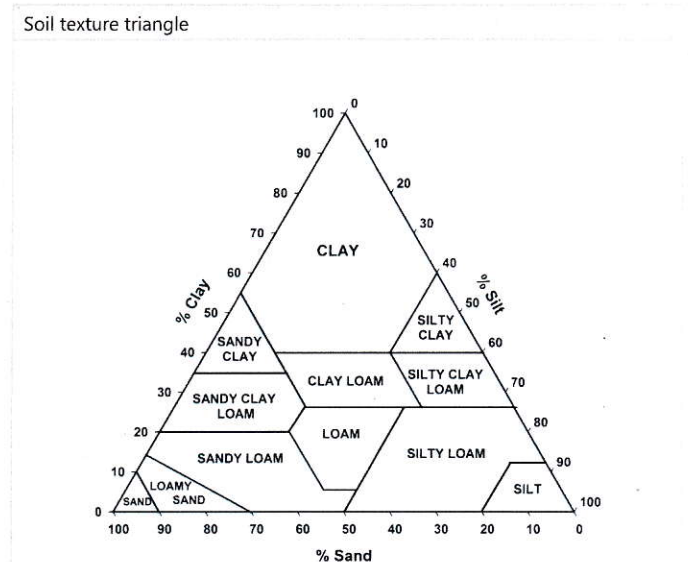
Measurement Details	
Analysis Date Time	25-Nov-23 4:46:28 PM
Instrument Type	Mastersizer3000
Software Version	3.81.1908.020

Analysis	
Particle Name	Sediment
Dispersant Name	Water
Weighted Residual	0.92 %
Laser Obscuration	13.09 %

Results (D-Values)	
Dv (10)	2.86 µm
Dv (50)	17.3 µm
Dv (60)	23.4 µm
Dv (90)	75.3 µm




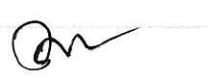


USDA Soil Classification		
Fraction	% in	
Clay (<2µm)	7.19	
Silt (2 - 50µm)	74.74	
Very fine sand (50-100µm)	12.08	
Fine sand (100-250µm)	5.65	
Medium sand (250-500µm)	.34	
Coarse sand (500-1000µm)	0	
Very coarse sand (1000-2000µm)	0	
Total sand (50-2000µm)	18.07	



Soil Texture according to USDA

Soil Texture: Silty loam

 (Scientific Officer)
  (Senior Scientific Officer)
  (Principal Scientific Officer)
  (Director (A.C.))



Sediment Analysis Bill

SEDIMENT, CHEMICAL & WATER POLLUTION DIVISION
Geotechnical Research Directorate
River Research Institute
Faridpur

Client: Director (in Charge)

Power, Energy, and Mineral Resources Division

CEGIS

Gulshan-1, Dhaka

Client ref.:

42.06.2626.119.37.001.23.05259

Date: 23/11/2023

Name of the Project: River bed samples analysis of Meghna and Tetulia Rivers under "Feasibility study from Bhola to Barishal Gas Transmission Pipeline Project"


Report No.: SED-06 (2023-2024)

Bill No.: SED-06 (2023-2024)

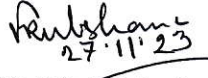
Date: 27/11/2023

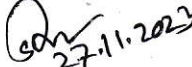
Sl. No.	Name of Sediment Tests	Rate Per Sample in Taka	No. of Sample Tested	Cost in Taka	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1	Sediment Concentration	825.00			
2	Specific Gravity	1725.00			
3	Mechanical Analysis by				
4	a. Sieve	2850.00			
	b. Hydrometer (Excluding Specific Gravity)	2850.00			
	c. Sieve & 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	12	72,000.00	
7	Carbon+Hydrogen+Nitrogen by CHNS/O Analyzer	5000.00			
8	Carbon+Hydrogen+Nitrogen+Sulfar/Oxygen by CHNS/O Analyzer	8000.00			
Total above				72,000.00	
(In words: Taka Seventy Two Thousand Only)					

*Charges include 10% Printing and Binding Cost, 10% Testing and Consultancy Fee and 15% VAT.


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


 (Md. Moniruzzaman)
 Senior Scientific Officer
 Geotechnical Research Directorate
 River Research Institute
 Faridpur


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


 (Uma Saha)
 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.	Md. Abdul Mazid Sarker	Lab Technician-C
5.	Md. Jana Alam	Lab Technician-B
6.	Md. Rejaul Karim	Lab Technician-B
7.	Md. Ramjan Ali Molla	Lab Technician-A
8.	Sheikh Md. Rasel	Lab Technician-A
9.	Md. Ikramul Haque	Lab Technician-A
10.	Md. Mahabubur Rahman	Office Assistant

To
Director General
River Research Institute
Dhaka Office
72, Green Road, Dhaka-1215

Our ref: 42.06.2626.119.37.001.23.05259

Date: 23 November, 2023

Subject: Request for testing of soil sample of Meghna and Tetulia Rivers under "Feasibility Study from Bhola to Barishal Gas Transmission Pipeline Project".

Dear Sir,

I would like to inform you that, Center for Environmental and Geographic Information Services (CEGIS), a Public Trust under the Ministry of Water Resources, is conducting the aforementioned study. Under this projects, 12 sediment samples from the river bed different locations were collected for the following analysis.

River bed Sediment analysis list is given bellow:

SL. No.	Sample ID	Parameters
1.	R1 Bank erosion Site	1. Determination of Particle or grain size with percentage a. Clay (%) b. Silt (%) c. Fine sand (%) d. Coarse sand (%) 2. Textural class determination 3. Determination of D ₅₀
2.	R1 Bank accretion Site	
3.	R1 Inside River	
4.	R2 Bank erosion Site	
5.	R2 Bank accretion Site	
6.	R2 Inside River	
7.	R3 Bank erosion Site	
8.	R3 Bank accretion Site	
9.	R3 Inside River	
10.	R4 Bank erosion Site	
11.	R4 Bank acacretion Site	
12.	R4 Inside River	

Therefore, I would like to request you to take necessary action for the analysis of soil sample at your earliest convenience.

Yours Sincerely,



23.11.2023

Mohammed Mukteruzzaman

Director (in-charge)

Power, Energy, and Mineral Resources Division, CEGIS
Gulshan-1, Dhaka-1212

