

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)
DEPARTMENT OF CIVIL ENGINEERING
ENVIRONMENTAL ENGINEERING LABORATORY

Mobile: +8801819 557 964;

PABX: +8802-55167100 Ext. 7226;

www.buet.ac.bd/ce/



BRTC No. : 1103-12736 /23-24/CE; Dt: 30/1/2024

Sent by : Md. Rajlun Nabi, General Manager

Company : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur, Bangladesh

Address

Project : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL-GW

Date of Test : 30/1/2024 - 29/2/2024

Location: Maddhapara, Parbatipur, Dinajpur

Source: Groundwater from Mine

Ref No.: 28.17.0000.400.09.001.23-65; Dt: 28/1/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	Bangladesh Standard for Drinking Water (ECR 2023)	WHO Guideline Values, 2022	Method of analysis	Minimum Detection Limit (MDL)
1	pH	---	9.68	6.5-8.5	6.5-8.5	SM 4500-H+ B	0
2	Color	Pt-Co	4	15	15	SM 2120 C	0.01
3	Turbidity	NTU	0.34	5	5	SM 2130 B	0.01
4	Total Hardness (as CaCO ₃)	mg/l	2	500	500	SM 2340 C	0.2
5	Total Solids (TS)	mg/l	360	---	---	SM 2540 B - D	5
6	Total Dissolved Solids (TDS)	mg/l	349	1000	1000	SM 2540 B - D	5
7	Total Suspended Solids (TSS)	mg/l	11	10	---	SM 2540 B - D	5
8	Total Coliform (TC)	CFU/100ml	0	0	0	SM 9221 E	0
9	Fecal Coliform (FC)	CFU/100ml	0	0	0	SM 9222 G	0
10	Dissolved Oxygen (DO)	mg/l	4.85	---	---	USEPA 360.3, 360.2; SM 4500- O B, G	0.1

a. Health based guideline, b. Guideline based on other considerations

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

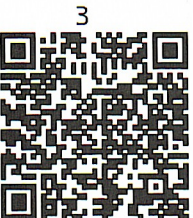
Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

Counter signed by :

Prof. Dr. Hasib Mohammed Ahsan
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka-1000

Test Performed by :

Dr. A. B. M. Badruzzaman
Professor, Dept. of Civil Engineering



ZCB5W5rhnn



BRTC No. : 1103-12736/23-24/CE; Dt: 30/1/2024

Ref. No.: 28.17.0000.400.09.001.23-65; Dt: 28/1/2024

Sent by : Md. Rajiun Nabi, General Manager

Company : Madhnapara Granite Mining Company Limited, Madhnapoara, Parbatipur, Dinajpur, Bangladesh

Address : Madhnapara Granite Mining Company Limited

Project : Madhnapara Granite Mining Company Limited

Sample Id : MGMCL-GW

Location: Madhnapara, Parbatipur, Dinajpur

Source: Groundwater from Mine

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	Bangladesh Standard for Drinking Water (ECR 2023)	WHO Guideline Values, 2022	Method of analysis	Minimum Detection Limit (MDL)
11	Iron (Fe)	mg/l	<MDL	0.3-1.0	0.3	SM 3111 B	0.02
12	Arsenic (As)	mg/l	0.002	0.05	0.01	SM 3113 B	0.001
13	Nitrate - Nitrogen (NO ₃ - N)	mg/l	0.2	45	50	SM 4500-NO ₃ -N-F	0.1
14	Nitrite - Nitrogen (NO ₂ - N)	mg/l	<MDL	---	3	SM 4500-NO ₂ -N-F	0.008
15	Silica (SiO ₂), Reactive	mg/l	76	---	---	SM 4500-SiO ₂ -C	0.3
16	Sulphate (SO ₄)	mg/l	41	250	250	SM 4500-SO ₄	7
17	Magnesium (Mg)	mg/l	0.14	30-35	---	SM 3111 B	0.001
18	Sodium (Na)	mg/l	127.3	200	200	SM 3111 B	0.01
19	Lead (Pb)	mg/l	<MDL	0.01	0.01	SM 3111 B	0.01
20	Cadmium (Cd)	mg/l	<MDL	0.003	0.003	SM 3113 B	0.001

a. Health based guideline, b. Guideline based on other considerations

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

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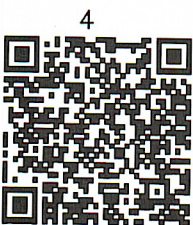
Prof. Dr. Hasib Mohammed Ahsan

Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka-1000

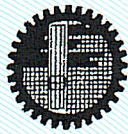
Test Performed by :

Dr. A. B. M. Badruzzaman

Professor, Dept. of Civil Engineering



SDdtXCeLB



BRTC No. : 1103-12736 /23-24/CE; Dt: 30/1/2024

Ref. No.: 28.17.0000.400.09.001.23-65; Dt: 28/1/2024

Sent by : Md. Rajun Nabi, General Manager

Company : Maddhapara Granite Mining Company Limited, Maddhapoara, Parbatipur, Dinajpur, Bangladesh

Address

Project : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL-GW

Location: Maddhapara, Parbatipur, Dinajpur

Source: Groundwater from Mine

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	Bangladesh Standard for Drinking Water (ECR 2023)	WHO Guideline Values, 2022	Method of analysis	Minimum Detection Limit(MDL)
21	Chromium (Cr)	mg/l	<MDL	0.05	0.05	SM 3111 B	0.001
22	Copper (Cu)	mg/l	<MDL	1.5	2	USEPA 200.9; SM 3111 B	0.014
23	Nickel (Ni)	mg/l	<MDL	0.05	0.02	SM 3111 B	0.02
24	Zinc (Zn)	mg/l	0.13	5	3-5	SM 3111 B	0.02
25	Aluminum (Al)	mg/l	<MDL	0.2	0.2	SM 3111 B	0.1
26	Selenium (Se)	mg/l	0.001	0.01	0.01	SM 3113 B	0.001
27	Boron (B)	mg/l	<MDL	1	0.5	SM 4500-B C	0.4
28	Mercury (Hg)	mg/l	<MDL	0.001	0.001	SM 3112 B	0.0001
29	Manganese (Mn)	mg/l	0.005	0.4	0.4	PAN Method	0.005
30	Chloride (Cl-)	mg/l	50	250 (1000 Coastal Area)	250	SM 4500-Cl-	1

Comments : a. Health based guideline, b. Guideline based on other considerations
1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

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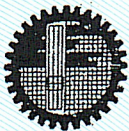
Countersigned by:

Prof. Dr. Hasib Mohammed Ahsan
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka-1000

Test Performed by:

Dr. A. B. M. Badruzzaman
Professor, Dept. of Civil Engineering





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BRTC No. : 1103-12736 /23-24/CE; Dt: 30/1/2024

Ref:

28.17.0000.400.00.001.2341.5; Dt: 28/1/2024

Sent by : Md. Rajun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL SW 02

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Surface Water

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
1	pH	---	8.34	6 - 9	6.5 - 8.5	6.5 - 8.5	USEPA 150.1; SM 4500-H+ B	0
2	Color	Pt-Co	262	---	---	---	USEPA 110.2; SM 2120 C	0.01
3	Turbidity	NTU	56.7	---	---	---	USEPA 180.1 Rev 2; SM 2130 B	0.01
4	Total Hardness (as CaCO ₃)	mg/l	42	---	---	---	USEPA 130.2; SM 2340 C	0.2
5	Chloride (Cl)	mg/l	54	---	---	---	USEPA 325.6; SM 4500-Cl-	1
6	Total Solids (TS)	mg/l	630	---	---	---	USEPA 160.2; SM 2540 B - D	5
7	Total Dissolved Solids (TDS)	mg/l	514	1000	1000	1000	USEPA 160.2; SM 2540 B - D	5
8	Total Suspended Solids (TSS)	mg/l	116	---	---	---	USEPA 160.2; SM 2540 B - D	5
9	Total Coliform(TC)	CFU/100ml	20000	≤ 5000	---	≤ 50,000	USEPA 9132; SM 9221 E	0
10	Fecal Coliform (FC)	CFU/100ml	12000	---	---	---	SM 9222 G	0

Comments : 1. Sample was supplied by CLIENT

2. Sample was received in sealed condition.

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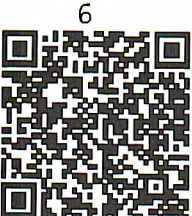
Prof. Dr. Hasib Mohammed Ahsan

Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

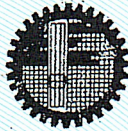
Test Performed by:

Dr. A. B. M. Badruzzaman

Professor, Dept. of Civil Engineering



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BRTC No. : 1103-12736 /23-24/CE; Dt: 30/1/2024

Ref.:

28.17.0000.400.09.001.23-15; Dt: 28/1/2024

Sent by : Md. Rajlun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL SW 02

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Surface Water

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
11	Dissolved Oxygen (DO)	mg/l	3.21	≥ 5	≥ 1	---	USEPA 360.3, 360.2; SM 4500-O B,G	0.1
12	Iron (Fe)	mg/l	3	---	---	---	USEPA 200.9; SM 3111 B	0.02
13	Arsenic (As)	mg/l	0.003	---	0.2	0.2	USEPA 206.2; SM 3113 B	0.001
14	Nitrate - Nitrogen (NO ₃ - N)	mg/l	27	7	---	5	USEPA 353.2; SM 4500-NO ₃ -N-F	0.1
15	#N/A	mg/l	4.05	---	---	---	SM 4500-NO ₂ -N-F	0.001
16	Silica (SiO ₂), Reactive	mg/l	73	---	---	---	USEPA 370.1; SM 4500-SiO ₂ -C	0.3
17	Sulphate (SO ₄)	mg/l	<MDL	---	---	---	USEPA 375.4; SM 4500-SO ₄	7
18	Magnesium (Mg)	mg/l	2.97	---	---	---	USEPA 200.9; SM 3111 B	0.008
19	Sodium (Na)	mg/l	253.4	---	---	---	USEPA 200.9; SM 3111 B	---
20	Lead (Pb)	mg/l	0.015	0.1	0.1	0.1	USEPA 200.9 Rev 2.2; SM 3111 B	0.001

Comments : 1. Sample was supplied by CLIENT
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Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

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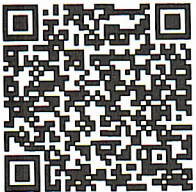
Prof. Dr. Hasib Mohammed Ahsan

Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

Test Performed by:

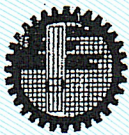
Dr. A. B. M. Badruzzaman

Professor, Dept. of Civil Engineering



YBFJPR LKR



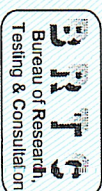


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Ref.:

28.17.0000.400.09.001.23-65; Dt: 28/1/2024

Sent by : Md. Rajun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL SW 02 Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Surface Water

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/ BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
21	Cadmium (Cd)	mg/l	<MDL	---	1	2	USEPA 213.2; SM 3113 B	0.001
22	Chromium (Cr)	mg/l	0.003	0.05	0.1	0.1	USEPA 200.9 Rev 2.2; SM 3111 B	0.001
23	Copper (Cu)	mg/l	0	---	---	---	USEPA 200.9; SM 3111 B	---
24	Nickel (Ni)	mg/l	<MDL	---	---	---	USEPA 200.9; SM 3111 B	0.035
25	Zinc (Zn)	mg/l	0.19	---	---	---	USEPA 200.9; SM 3111 B	0.02
26	Aluminum (Al)	mg/l	<MDL	---	---	---	USEPA 236.1; SM 3111 B	0.1
27	Selenium (Se)	mg/l	0.001	---	---	---	USEPA 270.2; SM 3113 B	---
28	Boron (B)	mg/l	1.4	---	2	4	USEPA 212.3; SM 4500-B C	0.4
29	Mercury (Hg)	mg/l	<MDL	0.004	0.05	0.002	USEPA 245.1 Rev. 3.0; SM 3112 B	0.0001
30	Manganese (Mn)	mg/l	0.038	---	---	---	PAN Method	0.005

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

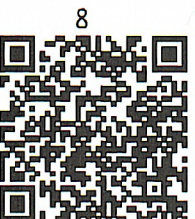
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CounterSigned by:

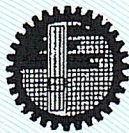
Prof. Dr. Hasib Mohammed Ahsan
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

Test Performed by:

Dr. A. B. M. Badruzzaman
Professor, Dept. of Civil Engineering



YmfNFH53j



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BRTC No. : 1103-12736 /23-24/CE; Dt: 30/1/2024

Ref.:

28.17.0000.400.001.23-55; Dt: 28/1/2024

Sent by : Md. Rajlun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL PP 03

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Precipitation Pond

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
1	pH	---	8.31	6 - 9	6.5 - 8.5	6.5 - 8.5	USEPA 150.1; SM 4500-H+ B	0
2	Color	Pt-Co	640	---	---	---	USEPA 110.2; SM 2120 C	0.01
3	Turbidity	NTU	16125	---	---	---	USEPA 180.1 Rev 2; SM 2130 B	0.01
4	Total Hardness (as CaCO ₃)	mg/l	200	---	---	---	USEPA 130.2; SM 2340 C	0.2
5	Chloride (Cl)	mg/l	90	---	---	---	USEPA 325.6; SM 4500-Cl-	1
6	Total Solids (TS)	mg/l	7372	---	---	---	USEPA 160.2; SM 2540 B - D	5
7	Total Dissolved Solids (TDS)	mg/l	750	1000	1000	1000	USEPA 160.2; SM 2540 B - D	5
8	Total Suspended Solids (TSS)	mg/l	6622	---	---	---	USEPA 160.2; SM 2540 B - D	5
9	Total Coliform (TC)	CFU/100ml	2450	≤ 5000	---	≤ 50,000	USEPA 9132; SM 9221 E	0
10	Fecal Coliform (FC)	CFU/100ml	1200	---	---	---	SM 9222 G	0

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

Countersigned by :

Prof. Dr. Hasib Mohammed Ahsan

Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

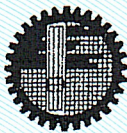
Test Performed by :

Dr. A. B. M. Badruzzaman

Professor, Dept. of Civil Engineering



gSYKZCCeT



BRTC No. : 1103-12736 /23-24/CE, Dt: 30/1/2024

Ref.:

28.17.0000.400.003.23-1-5; Dt: 28/1/2024

Sent by : Md. Rajun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL PP 03

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Precipitation Pond

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
11	Dissolved Oxygen (DO)	mg/l	1.66	≥ 5	≥ 1	---	USEPA 360.3, 360.2; SM 4500-O B,G	0.1
12	Iron (Fe)	mg/l	7	---	---	---	USEPA 200.9; SM 3111 B	0.02
13	Arsenic (As)	mg/l	0.016	---	0.2	0.2	USEPA 206.2; SM 3113 B	0.001
14	Nitrate - Nitrogen (NO ₃ - N)	mg/l	38	7	---	5	USEPA 363.2; SM 4500-NO ₃ -N-F	0.1
15	#N/A	mg/l	6.65	---	---	---	SM 4500-NO ₂ -N-F	0.001
16	Silica (SiO ₂), Reactive	mg/l	42	---	---	---	USEPA 370.1; SM 4500-SiO ₂ -C	0.3
17	Sulphate (SO ₄)	mg/l	35	---	---	---	USEPA 375.4; SM 4500-SO ₄	7
18	Magnesium (Mg)	mg/l	6.82	---	---	---	USEPA 200.9; SM 3111 B	0.008
19	Sodium (Na)	mg/l	389.6	---	---	---	USEPA 200.9; SM 3111 B	---
20	Lead (Pb)	mg/l	0.195	0.1	0.1	0.1	USEPA 200.9 Rev 2.2; SM 3111 B	0.001

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

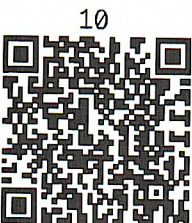
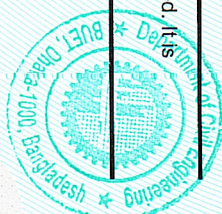
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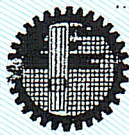
Prof. Dr. Hasib Mohammed Ahsan
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

Test Performed by:

Dr. A. B. M. Badruzzaman
Professor, Dept. of Civil Engineering



QZ274FGKS



BRTC No. : 1103-12736/23-24/CE; Dt: 30/1/2024

Ref.:

28.17.0000.400.09.001.2355; Dt: 28/1/2024

Sent by : Md. Rajiun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGNCL PP 03

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Precipitation Pond

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/ CHEMICAL/ BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
21	Cadmium (Cd)	mg/l	<MDL	---	1	2	USEPA 213.2; SM 3113 B	0.001
22	Chromium (Cr)	mg/l	0.283	0.05	0.1	0.1	USEPA 200.9 Rev 2.2; SM 3111 B	0.001
23	Copper (Cu)	mg/l	0.264	---	---	---	USEPA 200.9; SM 3111 B	---
24	Nickel (Ni)	mg/l	0.278	---	---	---	USEPA 200.9; SM 3111 B	0.035
25	Zinc (Zn)	mg/l	0.9	---	---	---	USEPA 200.9; SM 3111 B	0.02
26	Aluminum (Al)	mg/l	<MDL	---	---	---	USEPA 236.1; SM 3111 B	0.1
27	Selenium (Se)	mg/l	0.001	---	---	---	USEPA 270.2; SM 3113 B	---
28	Boron (B)	mg/l	1.1	---	2	4	USEPA 212.3; SM 4500-B-C	0.4
29	Mercury (Hg)	mg/l	<MDL	0.004	0.05	0.002	USEPA 245.1 Rev. 3.0; SM 3112 B	0.0001
30	Manganese (Mn)	mg/l	0.105	---	---	---	PAN Method	0.005

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

Countersigned by:

Prof. Dr. Hasib Mohammed Ahsan

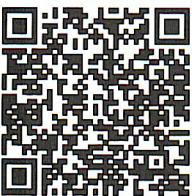
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

Test Performed by:

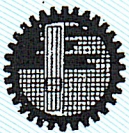
Dr. A. B. M. Badruzzaman

Professor, Dept. of Civil Engineering

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BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)
DEPARTMENT OF CIVIL ENGINEERING
ENVIRONMENTAL ENGINEERING LABORATORY

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PABX: +8802-55167100 Ext. 7226;

www.buet.ac.bd/ce/



BRTC No. : 1103-12736 /23-24/CE; Dt: 30/1/2024

Ref.:

28.17.0000.400.08.001.2341 S; Dt: 28/1/2024

Sent by : Md. Rajun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL PO 04

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Pond Outlet

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL / CHEMICAL / BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
1	pH	---	7.26	6 - 9	6.5 - 8.5	6.5 - 8.5	USEPA 150.1; SM 4500-H+ B	0
2	Color	Pt-Co	1984	---	---	---	USEPA 110.2; SM 2120 C	0.01
3	Turbidity	NTU	1720	---	---	---	USEPA 180.1 Rev 2; SM 2130 B	0.01
4	Total Hardness (as CaCO ₃)	mg/l	104	---	---	---	USEPA 130.2; SM 2340 C	0.2
5	Chloride (Cl)	mg/l	49	---	---	---	USEPA 325.6; SM 4500-Cl-	1
6	Total Solids (TS)	mg/l	1352	---	---	---	USEPA 160.2; SM 2540 B - D	5
7	Total Dissolved Solids (TDS)	mg/l	556	1000	1000	1000	USEPA 160.2; SM 2540 B - D	5
8	Total Suspended Solids (TSS)	mg/l	796	---	---	---	USEPA 160.2; SM 2540 B - D	5
9	Total Coliform(TC)	CFU/100ml	750	≤ 5000	---	≤ 50,000	USEPA 9132; SM 9221 E	0
10	Fecal Coliform (FC)	CFU/100ml	450	---	---	---	SM 9222 G	0

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

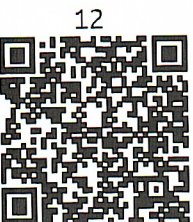
Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

Countersigned by :

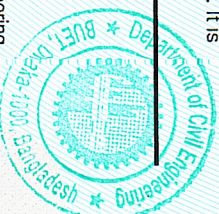
Prof. Dr. Hasib Mohammed Ahsan
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

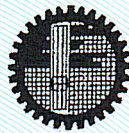
Test Performed by :

Dr. A. B. M. Badruzzaman
Professor, Dept. of Civil Engineering



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BRTC No. : **1103-12736 /23-24/CE; Dt: 30/1/2024**

Ref.:

28.17.0000.400.009.001.23-55; Dt: 28/1/2024

Sent by : **Md. Rajun Nabi, General Manager**

Address: : **Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur**

Project: : **Maddhapara Granite Mining Company Limited**

Sample Id : **MGMC PO 04**

Location : **Maddhapara, Parbatipur, Dinajpur**

Source & Use : **Pond Outlet**

Date of Test : **30/1/2024 - 29/2/2024**

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
11	Dissolved Oxygen (DO)	mg/l	2.91	≥ 5	≥ 1	---	USEPA 360.3; 360.2; SM 4500- O B,G	0.1
12	Iron (Fe)	mg/l	8.4	---	---	---	USEPA 200.9; SM 3111 B	0.02
13	Arsenic (As)	mg/l	0.005	---	0.2	0.2	USEPA 206.2; SM 3113 B	0.001
14	Nitrate - Nitrogen (NO ₃ - N)	mg/l	32	7	---	5	USEPA 353.2; SM 4500-NO ₃ -N-F	0.1
15	#N/A	mg/l	5.85	---	---	---	SM 4500-NO ₂ -N-F	0.001
16	Silica (SiO ₂), Reactive	mg/l	47	---	---	---	USEPA 370.1; SM 4500-SiO ₂ -C	0.3
17	Sulphate (SO ₄)	mg/l	20	---	---	---	USEPA 375.4; SM 4500-SO ₄	7
18	Magnesium (Mg)	mg/l	7.42	---	---	---	USEPA 200.9; SM 3111 B	0.008
19	Sodium (Na)	mg/l	370.7	---	---	---	USEPA 200.9; SM 3111 B	---
20	Lead (Pb)	mg/l	0.056	0.1	0.1	0.1	USEPA 200.9 Rev 2.2; SM 3111 B	0.001

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

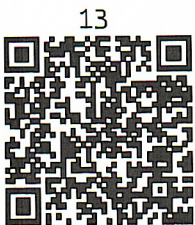
Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

Countersigned by :

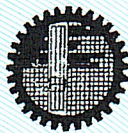
Prof. Dr. Hasib Mohammed Ahsan
Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

Test Performed by :

Dr. A. B. M. Badruzzaman
Professor, Dept. of Civil Engineering



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www.buet.ac.bd/ce/



BRTC No. : 1103-12736/23-24/CE; Dt: 30/1/2024

Ref.:

28.17.0000.400.09.001.2355; Dt: 28/1/2024

Sent by : Md. Rajiun Nabi, General Manager

Address: : Maddhapara Granite Mining Company Limited, Maddhapara, Parbatipur, Dinajpur

Project: : Maddhapara Granite Mining Company Limited

Sample Id : MGMCL PO 04

Location : Maddhapara, Parbatipur, Dinajpur

Source & Use : Pond Outlet

Date of Test : 30/1/2024 - 29/2/2024

TEST REPORT (PHYSICAL/CHEMICAL/BACTERIOLOGICAL ANALYSIS OF SURFACE WATER SAMPLE)

Sl. No.	Water Quality Parameters	Unit	Concentration Present	ECR 2023: Standards for Use of Surface Water			Method of analysis	Minimum Detection Limit (MDL)
				Fish Culture	Different Processes, Cooling & Industrial	Irrigation		
21	Cadmium (Cd)	mg/l	<MDL	---	1	2	USEPA 213.2; SM 3113 B	0.001
22	Chromium (Cr)	mg/l	0.05	0.05	0.1	0.1	USEPA 200.9 Rev 2.2; SM 3111 B	0.001
23	Copper (Cu)	mg/l	0.026	---	---	---	USEPA 200.9; SM 3111 B	---
24	Nickel (Ni)	mg/l	0.05	---	---	---	USEPA 200.9; SM 3111 B	0.035
25	Zinc (Zn)	mg/l	0.42	---	---	---	USEPA 200.9; SM 3111 B	0.02
26	Aluminum (Al)	mg/l	<MDL	---	---	---	USEPA 236.1; SM 3111 B	0.1
27	Selenium (Se)	mg/l	0	---	---	---	USEPA 270.2; SM 3113 B	---
28	Boron (B)	mg/l	0.7	---	2	4	USEPA 212.3; SM 4500-B C	0.4
29	Mercury (Hg)	mg/l	<MDL	0.004	0.05	0.002	USEPA 245.1 Rev. 3.0; SM 3112 B	0.0001
30	Manganese (Mn)	mg/l	0.258	---	---	---	PAN Method	0.005

Comments : 1. Sample was supplied by CLIENT
2. Sample was received in sealed condition.

Important Notes: Samples as supplied to us have been tested in our laboratory. BRTC does not have any responsibility as to the representative character of the samples required to be tested. It is recommended that samples are sent in a secure and sealed cover/pack

Countersigned by :

Prof. Dr. Hasib Mohammed Ahsan

Test-in-Charge, Dept. of Civil Engg., BUET, Dhaka 1000

Test Performed by :

Dr. A. B. M. Badruzzaman

Professor, Dept. of Civil Engineering



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