

HCCL/MSPCB/24-25/002

Date: 11.05.2024

To,
The Member Secretary,
Meghalaya State Pollution Control Board,
ARDEN Lumpynggad,
Shillong (Meghalaya) -793014

Subject: Monthly monitoring reports of Ambient Air Quality, Stack Emission, Waste Water Analysis (STP) & Noise Level Measurement for the month of **April, 2024**.

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of **April, 2024** for the following test results:

Sr. No.	Environmental Monitoring	Parameters	Frequency
1	Ambient Air	PM-10,PM-2.5, SO2 & NO2	Monthly
2	Stack	PM, SO2 & NO2	Monthly
3	Fugitive Emission	SPM	Monthly
4	Noise	Leq in dB(A) Day & Night	Monthly
5	Waste water	As per CTO 10 parameters	Monthly
6	Surface water	25 Parameters	Monthly

Thanking you,
For Hills Cement Company Ltd

Deepan Hande
Authorised Signatory



Copy To: - (1) The Joint Director (S), Ministry of Environment, Forest & Climate Change
NE Regional Office, Lumbatngen, Shillong 793021 for information.
(2) The Regional Director Regional Directorate (NE), Central Pollution
Control Board, TUM-SIR, Lower Motinagar, Near Fire Brigade HO,
Shillong-793014.



HILLS CEMENT COMPANY LIMITED

Report No.: ENV/HCLL/24-25/AA-04/01
Date : 11/05/2024

Order No.: HCLL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	LOCATION(S) ↓	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
	LIMIT(S) →	---	60	100	80	80
01	Near Cement Mill	30.04.2024	28.3	53.7	7.2	7.9
02	Near Crusher Area	30.04.2024	30.9	55.4	7.5	8.1
03	Near View Point	29.04.2024	24.7	49.3	6.9	7.6
04	Worker Colony	29.04.2024	19.6	44.2	<5.0	<6.0
05	Mynkree Village	29.04.2024	18.3	39.7	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/HCL/24-25/N-04/01
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day Time		Night Time	
			L _{eq} (dB-A)	Limit (dB-A)	L _{eq} (dB-A)	Limit (dB-A)
1	Near Cement Mill	30.04.2024	68.2	75	63.9	70
2	Near Crusher Area	30.04.2024	69.4	75	66.3	70
3	Near View Point	29.04.2024	55.3	75	49.5	70
4	Worker Colony	29.04.2024	52.8	75	43.6	70
5	Mynkree Village	29.04.2024	46.3	70	38.2	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Report No.: ENV/HCLL/24-25/SE-04/01
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/2024/SE-04/01		
02	Date of Sampling	29.04.2024		
03	Material of Construction	M. S.		
04	Stack Attached To	R.A.B.H.		
05	Stack Diameter (Meter)	3.0		
06	Flue Gas Temperature (°C)	172		
07	Exit Velocity of Gas (m/sec)	19.4		
08	Flow Rate (Nm ³ /hr)	330635		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	26	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	708	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	315	mg/Nm ³	800

*NA: Not Applicable



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/HCLL/24-25/SE-04/02
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/2024/SE-04/02		
02	Date of Sampling	29.04.2024		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	51		
07	Exit Velocity of Gas (m/sec)	12.5		
08	Flow Rate (Nm ³ /hr)	46816		
09	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	23	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	530	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	218	mg/Nm ³	800



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/HCCL/24-25/SE-04/03
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/2024/SE-04/03		
02	Date of Sampling	18.03.2024		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E.S.P.		
05	Stack Diameter (Meter)	2.8		
06	Flue Gas Temperature (°C)	231		
07	Exit Velocity of Gas (m/sec)	10.4		
08	Flow Rate (Nm ³ /hr)	136328		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	22	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	BDL#	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	BDL#	mg/Nm ³	800

*NA: Not Applicable

#BDL: Below Detectable Limit



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/HCCL/24-25/SE-04/04
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/2024/SE-04/04		
02	Date of Sampling	30.04.2024		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	66		
07	Exit Velocity of Gas (m/sec)	12.7		
08	Flow Rate (Nm ³ /hr)	45460		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	22	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	BDL#	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	BDL#	mg/Nm ³	800

*NA: Not Applicable

#BDL: Below Detectable Limit



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Core Services: Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs
Associate Services: Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/HCLL/24-25/WW-04/01
Date : 11/05/2024

Order No.: HCLL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : HCCL/2024/WW-3004/01
Sample Type/Source : Waste Water (Treated)/STP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 30.04.2024
Sample Received On : 02.05.2024
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.73	5.5 – 9.0
2.	Temperature	°C	25.4	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	36	100
4.	Biochemical Oxygen Demand	mg/l	24	30
5.	Chemical Oxygen Demand	mg/l	93	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	4.7	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	12.3	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Report No.: ENV/HCCL/24-25/FE-04/01
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

PROCESS FUGITIVE EMISSION TEST RESULTS

Date	Locations	Fugitive Emission Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
29.04.2024	Coal Storage Section	476	2000
29.04.2024	Lime Stone Storage Section	1548	5000
30.04.2024	Fly-ash Storage Section	1967	5000
30.04.2024	Cement Packing Section	2143	5000



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Report No.: ENV/HCL/24-25/SW-04/01
Date : 11/05/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : HCCL/2024/SW-3004/01 Sample Source : Drain Upstream Sample Type : Surface Water
Collected On : 30-04-2024 Received On : 02-05-2024 Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	9	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.5	--	--
4.	pH Value	6.67	6.5 - 8.5	No Relaxation
5.	Suspended Solids	44	--	--
6.	Total Dissolved Solids, mg/l, Max.	132	500	2000
7.	Conductivity, μ S/cm	184	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.2	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	28	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO ₃), mg/l, Max.	8.6	200	600
14.	Calcium (as Ca), mg/l, Max.	19	75	200
15.	Magnesium (as Mg), mg/l, Max.	4	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	1.9	--	--
19.	Total Kjeldahl Nitrogen (as NH ₃), mg/l, Max.	5.8	--	--
20.	Free Ammonia (as NH ₃), mg/l, Max.	<0.01	--	--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

Report No.: ENV/HCLL/24-25/SW-04/01
Date : 11/05/2024

Order No.: HCLL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : HCCL/2024/SW-3004/02 Sample Source : Drain Downstream Sample Type : Surface Water
Collected On : 30-04-2024 Received On : 02-05-2024 Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	13	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	25.5	--	--
4.	pH Value	6.63	6.5 - 8.5	No Relaxation
5.	Suspended Solids	55	--	--
6.	Total Dissolved Solids, mg/l, Max.	138	500	2000
7.	Conductivity, $\mu\text{S}/\text{cm}$	186	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.7	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	35	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO_3), mg/l, Max.	8.7	200	600
14.	Calcium (as Ca), mg/l, Max.	21	75	200
15.	Magnesium (as Mg), mg/l, Max.	4	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.4	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	6.6	--	--
20.	Free Ammonia (as NH_3), mg/l, Max.	<0.01	--	--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.