

HCCL/MSPCB/21-22/07

Date: 25/1/22

To,

✓ The Member Secretary,

Meghalaya State Pollution Control Board

ARDEN Lumpyngngad

Shillong (Meghalaya) -793014

Subject: Reports on Ambient Air Quality test, Stack Emission test, Fugitive Emission, Waste Water Analysis (STP & ETP) & Noise Level Measurement Test for the month of **December 2021**

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of **December 2021** for the following test results:

Sl No.	Test Results	Purpose
1	Ambient Air Quality	-
2	Stack Emission	R.A.B.H
3	Stack Emission	Coal Mill
4	Stack Emission	Cooler E.S.P
5	Waste Water Analysis Result	ETP & STP Water Analysis
6	Noise Level Measurement Test	
7	Fugitive Emission Test	

Thanking you,

For Hills Cement Company Ltd

HILLS CEMENT COMPANY LTD.
Authorized Signatory

Copy To: - **The Joint Director (S), Ministry of Environment, Forest & Climate Change**
NE Regional Office, Lumbatngen, Shillong 793021 for information

**HILLS CEMENT COMPANY LIMITED**

HCCL/MSPCB/21-22/07

Date: 25/1/22

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

Subject: Reports on Ambient Air Quality test, Stack Emission test, Fugitive Emission, Waste Water Analysis (STP & ETP) & Noise Level Measurement Test for the month of **December 2021**

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of **December 2021** for the following test results:

Sl No.	Test Results	Purpose
1	Ambient Air Quality	-
2	Stack Emission	R.A.B.H
3	Stack Emission	Coal Mill
4	Stack Emission	Cooler E.S.P
5	Waste Water Analysis Result	ETP & STP Water Analysis
6	Noise Level Measurement Test	
7	Fugitive Emission Test	

Thanking you,
For Hills Cement Company Ltd
HILLS CEMENT COMPANY LTD.

[Signature]
Authorized Signatory
Authorised Signatory

Copy To: - The Joint Director (S), Ministry of Environment, Forest & Climate Change
NE Regional Office, Lumbatngen, Shillong 793021 for information

HILLS CEMENT COMPANY LIMITED



Report No.: ENV/HCLL/21-22/AA-12/01

Date : 08/01/2022

Order No.: HCLL/HO/ENV/21-22/01

Date : 08/04/2021

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 ($\mu\text{g}/\text{m}^3$)	PM 10 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)
	LIMIT(S) →	---	60	100	80	80
01	In-front of Guest House	13.12.2021	20.1	43.4	<5.0	<6.0
02	Near Crusher Area	13.12.2021	28.6	50.5	6.8	7.6
03	In- Front of Compressor House (Cement Mill)	14.12.2021	26.7	49.3	7.1	7.9
04	Near Mines	14.12.2021	33.9	59.7	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
- Results reported are valid at the time of and under the prevailing conditions of measurement.
 - Results refer only to the particular parameters tested.
 - 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/21-22/SE-12/03

Date : 08/01/2022

Order No.: HCL/HO/ENV/21-22/01

Date : 08/04/2021

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/21-22/SE-12/03		
02	Date of Sampling	12.12.2021		
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)	221		
07	Exit Velocity of Gas (m/sec)	8.9		
08	Flow Rate (Nm³/hr)	119027		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	18	mg/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	BDL#	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	BDL#	mg/Nm³	800

*NA: Not Applicable

#BDL: Below Detectable Limit



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
- Results reported are valid at the time of and under the prevailing conditions of measurement.
 - Results refer only to the particular parameters tested.
 - 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/21-22/SE-12/01

Date : 08/01/2022

Order No.: HCLL/HO/ENV/21-22/01

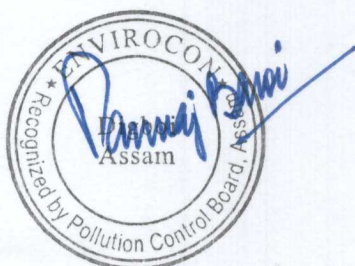
Date : 08/04/2021

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/21-22/SE-12/01		
02	Date of Sampling	11.12.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	59		
07	Exit Velocity of Gas (m/sec)	13.6		
08	Flow Rate (Nm³/hr)	49708		
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/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	314	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	149	mg/Nm³	800



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
- Results reported are valid at the time of and under the prevailing conditions of measurement.
 - Results refer only to the particular parameters tested.
 - 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/21-22/SE-12/02

Date : 08/01/2022

Order No.: HCLL/HO/ENV/21-22/01

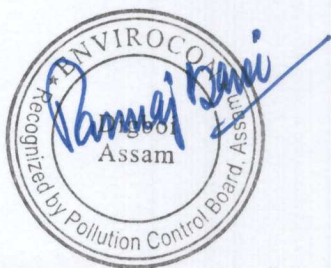
Date : 08/04/2021

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/21-22/SE-12/02		
02	Date of Sampling	11.12.2021		
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)	181		
07	Exit Velocity of Gas (m/sec)	19.3		
08	Flow Rate (Nm³/hr)	322410		
09	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	21	mg/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	536	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	284	mg/Nm³	800



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
- Results reported are valid at the time of and under the prevailing conditions of measurement.
 - Results refer only to the particular parameters tested.
 - 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/21-22/N-12/01
Date : 08/01/2022

Order No.: HCCL/HO/ENV/21-22/01
Date : 08/04/2021

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	In-front of Guest House	11.12.2021	46.9	75	34.3	70
2	Near Crusher Area	11.12.2021	69.8	75	61.6	70
3	In- Front of Compressor House (Cement Mill)	12.12.2021	71.3	75	67.7	70
4	Near Mines	12.12.2021	42.8	75	33.4	70



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

NOTE:

- Results reported are valid at the time of and under the prevailing conditions of measurement.
- Results refer only to the particular parameters tested.
- 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/21-22/FE-12/01

Date : 08/01/2022

Order No.: HCLL/HO/ENV/21-22/01

Date : 08/04/2021

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 ($\mu\text{g}/\text{m}^3$)
11.12.2021	Coal Storage Section	813	2000
11.12.2021	Lime Stone Storage Section	2172	5000
12.12.2021	Fly-ash Storage Section	2879	5000
12.12.2021	Cement Packing Section	2962	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.

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/21-22/WW-12/01

Date : 08/01/2022

Order No.: HCCL/HO/ENV/21-22/01

Date : 08/04/2021

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/21-22/WW-1212/01
Sample Type/Source : Waste Water (Treated)/STP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 12.12.2021
Sample Received On : 16.12.2021
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.79	5.5 – 9.0
2.	Temperature	°C	25.8	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	17	100
4.	Biochemical Oxygen Demand	mg/l	20	30
5.	Chemical Oxygen Demand	mg/l	112	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	8.3	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	18	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE:

- Results reported are valid at the time of and under the prevailing conditions of measurement.
- Results refer only to the particular parameters tested.
- 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/21-22/WW-12/02

Date : 08/01/2022

Order No.: HCLL/HO/ENV/21-22/01

Date : 08/04/2021

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/21-22/WW-1212/02
Sample Type/Source : Waste Water (Treated)/ETP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 12.12.2021
Sample Received On : 16.12.2021
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	25.2	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	24	100
4.	Biochemical Oxygen Demand	mg/l	21	30
5.	Chemical Oxygen Demand	mg/l	126	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	9.1	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	19	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



Checked By: Mr. Pankaj Baroi, ENVIROCON

- NOTE:**
- Results reported are valid at the time of and under the prevailing conditions of measurement.
 - Results refer only to the particular parameters tested.
 - 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.