



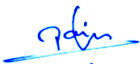
STAR CEMENT LIMITED

Lumshnong, Meghalaya

Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Manual Rain (mm)
01-05-2023	762.5	60.1	32.7	0
02-05-2023	762.2	57.9	39.6	0
03-05-2023	761	59.7	40.7	4.6
04-05-2023	761.5	85.0	25.9	48
05-05-2023	760.9	65.7	29.8	0
06-05-2023	762.5	77.8	31.8	2
07-05-2023	762.2	66.9	33.4	0
08-05-2023	762.5	64.7	39.7	0
09-05-2023	761.4	61.8	32.5	0
10-05-2023	763	86.7	22.6	120
11-05-2023	762	75.9	38.9	0
12-05-2023	764	79.6	29.7	10
13-05-2023	760.6	54.7	37.6	0
14-05-2023	762.7	53.4	35.4	0
15-05-2023	764.8	76.1	33.7	12
16-05-2023	766	85.2	29.4	62.4
17-05-2023	764	59.7	33.6	0
18-05-2023	768	68.6	22.9	3
19-05-2023	764	64.9	23.8	10.2
20-05-2023	763.4	80.1	23.4	72.8
21-05-2023	761	82.6	20.7	12.4
22-05-2023	763.8	75.1	26.4	2
23-05-2023	760.9	84.6	25.7	8.2
24-05-2023	762.5	55.1	34.6	0
25-05-2023	762.2	55.0	35.0	0
26-05-2023	763	58.4	25.9	16
27-05-2023	761	87.6	22.9	76.8
28-05-2023	760	58.2	31.9	0
29-05-2023	762.5	52.9	32.4	0
30-05-2023	763	55.0	36.4	0
31-05-2023	763.5	53.9	32.5	0
			Total	460.4

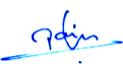
	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/02			Month: May	
Location of Sampling: Near Star Club		GPS Coordinate: 25°10'36"N 92°23'16"E 928 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.05.2023	33.73	23.97	11.58	15.35
05.05.2023	41.00	25.83	12.55	13.51
08.05.2023	36.80	21.58	10.76	15.26
11.05.2023	33.30	23.97	10.55	13.88
13.05.2023	40.05	22.83	11.73	15.28
17.05.2023	39.69	25.67	10.58	12.78
19.05.2023	36.83	24.78	11.34	14.28
23.05.2023	34.79	24.48	11.89	13.09
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by  Checked by  Verified By				

	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/02			Month: May	
Location of Sampling: Near Pump House		GPS Coordinate: 25°10'42"N 92°23'32"E 919 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.05.2023	70.95	43.13	19.46	24.84
05.05.2023	65.60	44.01	20.48	25.87
08.05.2023	67.83	44.67	20.94	23.85
11.05.2023	71.82	43.00	20.39	22.78
13.05.2023	69.15	40.83	18.91	22.03
17.05.2023	70.65	43.20	17.23	22.89
19.05.2023	72.40	44.58	19.39	22.87
23.05.2023	68.51	41.87	18.48	20.78
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/02			Month: May	
Location of Sampling: Near Security Gate - 3		GPS Coordinate: 25°10'27"N 92°23'37"E 944 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.05.2023	69.48	40.59	17.13	21.10
05.05.2023	64.13	41.47	18.15	22.13
08.05.2023	66.36	42.13	18.61	20.11
11.05.2023	70.35	40.46	18.06	19.04
13.05.2023	67.68	38.29	16.58	18.29
17.05.2023	69.18	40.66	14.90	19.15
19.05.2023	70.93	42.04	17.06	19.13
23.05.2023	67.04	39.33	16.27	17.04
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: Tongseng Village /2023-24/02			Month: May	
Location of Sampling: Tongseng Village		GPS Coordinate: 25°10'08"N 92°24'17"E 756 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
24.05.2023	34.00	17.12	10.04	11.98
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by  Checked by  Verified By				

	STAR CEMENT LIMITED Lumshnong, Meghalaya						Reference No.	SCL/Env/F-02	
							Issue No.	1	
	STACK EMISSION MONITORING ANALYSIS REPORT						Date of Issue	01.05.2019	
							Revision No.	5	
Report No: SCL/ENV/STACK/MONTHLY/2023-24/02						Date of Rev.			01.06.2021
Analysis Result									
A. General Information About Stack									
1	Stack Identification No	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8
2	Stack Connected to	Kiln/Raw Mill	Coal Mill	Cooler	Roller Press	Cement Mill	Packing Plant	Primary Crusher	Secondary Crusher
3	Material of Construction (Stack/Duct)	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
4	Shape of duct	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
5	Whether duct is provided with permanent platform & ladder	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B. Physical characteristic of stack									
1	Stack Height from ground level (meter)	45.4	37	30.4	24	30	28	21	17
2	Duct diameter at sampling point (meter)	3	1.2	2.8	1.4	1.5	1.1	1.2	1.0
3	Sampling height point from ground level (meter)	-	-	-	-	-	-	-	-
4	Cross sectional area of Duct/Stack (m ²)	7.07	1.13	6.15	1.54	1.77	0.95	1.13	0.79
C. Pollution Control Device									
1	Details of pollution control device attached to stack	Reverse Air Bag House	Bag Filter	ESP	Bag Filter	Bag Filter	Bag Filter	Bag Filter	Bag Filter
D. Result of Sampling & Analysis of Gaseous Emission									
1	Date of Sampling	28.05.2023	04.05.2023	28.05.2023	24.05.2023	23.05.2023	23.05.2023	24.05.2023	24.05.2023
2	Ambient Temp (°C)	30	39	42	26	23	24	23	22
3	Stack Gas Temp (°C)	192	87	240	36	34	35	32	29
4	Exit Velocity of Gas (m/sec.)	18.72	13.59	9.89	14.01	13.52	12.61	14.76	13.85
5	Flow Rate (Nm ³ / sec.)	80.30	12.02	34.03	19.36	21.70	10.97	15.21	10.13
6	Quantity of Emission (Nm ³ / Hr)	289076.95	43287.17	122502.29	69712.71	78114.72	39475.84	54757.26	36481.47
7	Concentration of PM (mg/Nm ³)	14.58	25.60	19.59	21.79	19.29	17.15	17.80	21.10
8	Concentration of SO ₂ (mg/Nm ³)	525.0	-	-	-	-	-	-	-
9	Concentration of NO _x (mg/Nm ³)	412.0	-	-	-	-	-	-	-
10	Oxygen (O ₂) (%)	9.6	11.5	7.3	9.5	8.6	6.0	9.7	9.1
E. Remarks									
Standard									
PM - 30 mg/Nm ³			SO ₂ - 1000 mg/Nm ³			NO _x - 800 mg/Nm ³			
Particulate Matter (PM), Sulphur di-oxide (SO ₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP)									
 Analysis by			 Checked by			 Authorized Signatory			

	STAR CEMENT LIMITED Lumshnong, Meghalaya	Document No.	SCL/EHS/Env/F-04
		Date of Issued	01-05-2019
		Revision No.	2
	FUGITIVE EMISSION MONITORING REPORT	Revision Date	01-01-2021
Ref: SCL/ENV/FUGITIVE/MONTHLY/2023-24/02			
Month - May			
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline
			Limit
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)
24.05.2023	Coal Storage Section	1467	2000
24.05.2023	Limestone Storage Section	1944	5000
 Analyzed By  Checked by  Verified By			

	STAR CEMENT LIMITED Lumshnong, Meghalaya				Reference No.	SCL/EHS/F-04
					Issue No.	1
	WATER TESTING REPORT				Date of Issue:	24.08.2013
					Revision No.	3
					Date of Rev.	01.06.2019
Reference No.: SCL/ENV/WATER/MONTHLY/2023-24/02					Date of sample collection: 03.05.2023	
					Date of Analysis: 03.05.2023 to 06.05.2023	
Sl.No.	Parameter	Unit	STP Inlet	STP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014	
1	pH	-	7.5	7.6	5.5 to 9.0	
2	Colour	Hazen	Colourless	Colourless	-	
3	Odour	-	Odourless	Odourless	-	
4	Chloride	mg/L	50.6	45.1	-	
5	Total Hardness as CaCO ₃	mg/L	42.9	51.7	-	
6	Suspended Solids	mg/L	82	15	100	
7	Total Dissolve Solids	mg/L	344	360	-	
8	Chemical Oxygen Demand	mg/L	121	35	250	
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	48	12	30	
10	Oil & Grease	mg/L	9.5	< 3.0	10	
11	Temperature	° C	25	25	Shall not exceed 5.0°C above the receiving water temperature	
12	Conductivity	µS/cm	494	534	-	
 Analysis By  Checked By  Verified By						



STAR CEMENT LIMITED

Lumshnong, Meghalaya

WATER TESTING REPORT

Reference No.	SCL/EHS/F-04
Issue No.	1
Date of Issue:	24.08.2013
Revision No.	3
Date of Rev.	01.06.2019

Reference No.: SCL/ENV/WATER/MONTHLY/2023-24/02

Surface Water Analysis Results

Date of sample collection: 03.05.2023

Date of Analysis: 03.05.2023 to 03.05.2023

S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	Seshympa	Umbadoh	Tongseng	Lumshnong	Wahiajer	Standards norms as per IS 2296
			Up Stream	Down Stream	Up Stream	Down Stream	Down Stream		Seasonal Spring / Seasonal Nallah				
1	pH	-	7.6	7.8	7.5	7.9	8.0	7.8	7.7	7.6	7.7	7.8	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	10
3	Odour	-	Unobjectionable										Unobjectionable
4	Chloride	mg/L	22.2	31.8	22.0	25.6	47.2	17.2	38.7	19.0	19.9	25.9	250
5	Total Hardness as CaCO ₃	mg/L	30.0	56.0	81.0	79.0	84.5	37.2	23.6	10.5	9.0	45.3	300
6	Suspended Solids	mg/L	1.0	5.7	1.0	20.6	7.6	3.8	5.0	3.0	1.0	5.8	-
7	Total Dissolve Solids	mg/L	245	270	235	298	370	94.3	180	9.0	26.0	183.0	500
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0
9	Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
10	Temperature	° C	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	-
11	Conductivity	µS/cm	420.0	473.0	432.0	532.0	651	174	329	15.6	46.5	342.0	-
12	Flow	L / Min	8258.2	11772.0	3081.9	4693.5	11112.9	403634.8	-	-	476.53	-	-

Analyzed by

Checked by

Verified by