

Letter No: GSCL/EHS/2021-22/08

Dated: 31.05.2021

To,  
The Ministry of Environment & Forests & Climate Change,  
North Eastern Regional Office (NEZ),  
Law-u-sib, Lumbatngen, Near MTC Workshop,  
Near NTC Workshop, Shillong, Meghalaya-793021.

Sub: Six Monthly Compliance of Environment Clearance Letter of  
M/s. Goldstone Cements Ltd, Vill: Musiang Lamare (old), Khliehriat, East Jaintia  
Hills, Meghalaya-793200

Ref: Environment Clearance letter No:- J-11011/851/2008-IA II(I) dated 30.09.2010


Dear Sir,

With the matter as cited in the subject, we would like to submit the Half Yearly EC  
Compliance report for the period 01.10.2020 to 31.03.2021 on Environmental  
Stipulations for our Cement Plant along with Captive Thermal Power plant located at  
Vill: Musiang Lamare (old), Khliehriat, Dist :East Jaintia Hills, Meghalaya -793200.

All annexures are enclosed as mentioned in compliance report for your kind reference.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

  
Authorised Signatory



Encl: As mentioned above.

- CC: 1. Regional Director, Central Pollution Control Board, Regional Directorate-North  
East, Lower Motinagar, Shillong, Meghalaya-793014.  
2. Member Secretary, Meghalaya State pollution Control Board, "ARDEN"  
Lumpynggad, Shillong, Meghalaya-793014.

**Goldstone Cements Limited**

CIN No. : U26940ML2007PLC008298

**Corporate Office**

510, 5th Floor, Diamond Heritage,  
16, Strand Road, Kolkata - 700001  
P +91-33-66079604

**Factory Office**

Village Musiang Lamare(Old),  
Khliehriat, East Jaintia Hills,  
Meghalaya - 793200

**Sales & Marketing Office**

5A, 5th Floor, Shine Towers, 57 Sati Jaymati Road  
Arya Chowk, Rebari, Guwahati, Assam 781008  
P +91-361-2607071/72



**COMPLIANCE REPORT (HALF YEARLY) FROM 1<sup>st</sup> OCTOBER 2020 to 31<sup>st</sup> MARCH 2021 ON ENVIRONMENTAL STIPULATIONS FOR CEMENT PLANT [CLINKER-1.65 MTPA (INSTALLED - 0.56 MTPA)]; [CEMENT- 2.0 MTPA (INSTALLED - 0.88 MTPA)] ALONG WITH CAPTIVE THERMAL POWER PLANT [2 x 20 MW (INSTALLED - 10 MW)] AT VILL MUSIANG LAMARE (OLD), P.O.: KHLIEHRIAT, DIST. EAST JAINTHIA HILLS, MEGHALAYA OF M/S. GOLDSTONE CEMENTS LTD - ENVIRONMENTAL CLEARANCE VIDE MOEF LETTER NO. J-11011/851/2008-IA II (I), DATED 30.09.2010.**

SL. NO	CONDITIONS	COMPLIANCE
<b>A. SPECIFIC CONDITIONS</b>		
i	Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, limit of SPM shall be controlled within 50 mg/Nm <sup>3</sup> by installing adequate air pollution Control system. Electrostatic precipitators (ESP) to clinker cooler, bag house raw mill/kiln and bag filters to coal mill and cement mill. Low NOx burners should be provided to control NOx emissions.	<ul style="list-style-type: none"> <li>● The Continuous Stack Monitor (Opacity Meters) is in working condition and online data is being transferred to CPCB &amp; MSPCB.</li> <li>● ESP (Electrostatic Precipitators) for Clinker cooler, Bag house/Bag filters for Raw Mill / Coal Mill &amp; other pollution control equipments were already installed in plant to keep PM below 30 mg/Nm<sup>3</sup> in Cement Plant stacks and 50 mg/Nm<sup>3</sup> in Captive Power Plant stack as per our consent guideline.</li> </ul>
ii	Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB). A feasibility report shall be prepared and submitted to the ministry and its Regional office at Shillong within 03 months from the date of issue of the letter.	<p>Hot gases generated from kiln are required for drying out moisture in Raw Mill and Fuel. Hence Kiln waste heat is being utilized partially in Raw Mill and partially in Coal Mill to meet our operational requirement. Some heat is lost in clinker cooler.</p> <p>Moreover, in our case the installed capacity of kiln is only 1700 TPD and after utilization of hot gases in Raw mill and Coal mill, the remaining quantum of waste heat is not sufficient for setting up WHRB.</p> <p>We have also explored the Cement plants in the near vicinity and none of them have installed Waste Heat Recovery Plant.</p>
iii	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November 2009 shall be followed.	<p>The same is being followed during operation of plant. Ambient air quality monitoring is being done as per standards.</p> <p>Ambient air quality parameters are found to be within the limit for all the parameters. <i>(Details attached in Annexure-1)</i></p>
iv	Secondary fugitive emission shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of practice issued by the CPCB in this regard should be followed.	<p>All material transfer points are provided with Bag filters to control fugitive emission. Construction of concrete roads is under progress in the plant. <i>(Photographs are enclosed in Annexure:2)</i></p> <p>Dust suppression is being done through water sprinklers installed in limestone crusher and plant roads.</p> <p>Full time water tanker has been deployed in the plant as shown in <i>Annexure:2d</i></p> <p><i>(Photographs are enclosed in Annexure:2a,2b,2c)</i></p> <p>Guideline / Code of practice issued by the CPCB is being followed during operation of plant. Regular monitoring for control of secondary fugitive emission under prescribed limit is being done. <i>(Details attached in Annexure-1)</i></p>



v	Effort shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be over loaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.	Raw Material and end products are transported keeping in consideration that surrounding environment and agriculture land is protected. There is separate designated parking space for truck parking.  It is ensured that without valid PUC no vehicle is allowed in plant premises. Few certificates are enclosed for your reference. <u>(Details attached in Annexure-3)</u>
vi	Total water requirement for cement and captive power plant shall not exceed 2,370 m <sup>3</sup> / day. All the treated wastewater shall be recycled and reused in the process and / or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'Zero' discharge should be adopted.	Total water requirement is much below the stipulated limit of 2,370 m <sup>3</sup> / day as our Plant has been designed as per close circuit arrangements for cooling water. Company has adopted "ZERO discharge" of waste water.
vii	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	We have constructed a reservoir of 1 lac liters capacity in the west side.  <u>(Photograph are enclosed in Annexure-4)</u>
viii	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional office at Shillong, SPCB and CPCB.	We are not generating any process effluent as the process water required for the cooling of bearing in cement plant is given treatment of cooling and sedimentation and entirely recycled. Effluent from DM plant is treated in a neutralization pit and treated water is reused entirely for dust suppression on haul roads.
ix	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / re-processors only.	All the dust collected through pollution control equipment is either raw material or cement dust. Those are collected and recycled in a closed loop.
x	All the fly ash shall be utilized as per fly ash Notification, 1999 subsequently amended in 2003. Effort shall be made to use fly ash maximum in making Pozzolana Portland Cement (PPC).	Fly ash generated in our captive power plant is completely used in manufacturing of Pozzolana Portland Cement (PPC)
xi	Effort shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.	Low grade limestone / Dolomite Stones are blended with high quality grade limestone. Fly ash generated in CPP is used in manufacturing of Pozzolana Portland Cement (PPC). We are manufacturing more of PPC over OPC.
xii	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.	We do not have significant quantum of high calorific hazardous waste except very insignificant quantity of Lubricating Oil and the same is disposed off as per defined rules in this regard.



xiii	As proposed, green belt shall be developed in at least 33% area in around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.	The green belt plan to achieve 33 % area coverage is already finalized. Coverage in major area has been in place. Plantation in balance area is under progress. Plantation of Native species is being done in consultation of DFO. Recently a mass plantation of around 5000 saplings was made on 14 <sup>th</sup> August 2020. 31.8% area is already under greenbelt.  Balance and required plantation shall be done in phase manner. <i>(Greenbelt development Drawing is enclosed in Annexure :5)</i>
xiv	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants should be implemented.	All recommendations were considered during the design of plant and machineries and as such all the issues in this regard are complied with. .  All of the points of public hearing have been addressed and complied.
xv	All the commitments made to the public during the Public Hearing / Public consultation meeting held on 27 <sup>th</sup> November 2009 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional office at Shillong.	Company has given preference to local people for employment in company.  Company has conducted social development activities in nearby vicinity areas as health facilities, ambulance facilities, water facilities, free and subsidized cements for constructing the roads, churches, schools, community halls, cultural programmes and etc.
xvi	At least 5% of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.	Company has conducted CSR activities in nearby vicinity areas as health facilities, ambulance facilities, water facilities, free and subsidized cements for constructing the roads, churches, schools, community halls, cultural programmes and etc.
i	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Phase-1 of Project has already been completed. During Phase-1 project, all such facilities were ensured. Whenever next phase of project will commence in future, same shall again be adhered to.
<b>B. GENERAL CONDITIONS</b>		
i	The project authorities must strictly adhere to the stipulations made by the Meghalaya State Pollution Control Board and the State Government.	Stipulations mandated in the CTE and CTO are being adhered to.
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	There will be no expansion or modifications beyond permissions already granted without prior approval of MoEF.





<p>iii) The gaseous emissions from various process units shall confirm to the load / mass based standards notified by this Ministry on 19<sup>th</sup> May, 1993 and standards prescribed from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.</p>	<p>Our newly commissioned unit with more sophisticated technologies is able to meet with the new standards of emission for cement industries, including load-based standards.</p>
<p>iv) At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Shillong and the SPCB/CPCB once in six months.</p>	<p>Monthly monitoring of ambient air quality is being carried out in four locations. Online emission monitoring system is installed in all the major stacks. Data on ambient air quality and stack emission are submitted to MOEF&amp;CC, CPCB and MSPCB once in six months.</p> <p style="text-align: center;"><i><u>(Details are attached as per Annexure-1)</u></i></p>
<p>v) Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December 1993 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.</p>	<p>Treated wastewater from DM plant is used entirely in dust suppression measures. Process water requires for cooling of bearing in the cement plant are cooled, treated and recycled fully.</p>
<p>vi) The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).</p>	<p>Care has been taken during project planning and ordering of equipment. Noise level is monitored and being found within the prescribed limit.</p> <p style="text-align: center;"><i><u>(Details are attached as per Annexure-1)</u></i></p>
<p>vii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.</p>	<p>Occupational health surveillance to our workers is conducted as per factory act. However, the health care center is already available in our Plant Campus. Trained staff and Doctor are available with essential medicines for health surveillance on regular basis.</p>
<p>viii) The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.</p>	<p>We have constructed a reservoir of 1 lac liters capacity in the west side.</p> <p style="text-align: center;"><i><u>(Photograph are enclosed in Annexure-4)</u></i></p>
<p>ix) The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.</p>	<p>We are working on the implementation of the conditions given in EIA/EMP.</p> <p>We are sponsoring for community development programmes. We are providing the drinking water facility in nearby village.</p> <p>We are providing free medicines, free ambulance services to local community.</p>



<p>x</p> <p>As proposed, Rs 25 Crores and Rs 1.80 Crores shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of environment &amp; Forests as well as the state government. An implementing all the conditions stipulated herein shall be submitted to the Regional office of the Ministry at Shillong. The Funds so provided shall not be diverted for any other purpose.</p>	<p>Exhaustive environmental protection measures have been taken by installing following equipments approx 25.97 Cr as capital cost.</p> <ul style="list-style-type: none"> <li>• ESP and bag houses are installed.</li> <li>• Material transfer points bag filters installed to control fugitive dust.</li> <li>• Sox &amp; NOx analyzer and opacity meters have been installed to monitor the emission and data transmission to CPCB server.</li> </ul> <p>We have invested approx Rs. 3.02 Cr amount towards recurring cost for environment pollution control measures.</p>
<p>xi</p> <p>A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.</p>	<p>Has been implemented.</p> <p>Copy was already submitted to the MOEF &amp;CC.</p>
<p>xii</p> <p>The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Shillong. The respective Zonal office of CPCB and the SPCB. The criteria pollutant levels namely; PM 10, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters. Indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.</p>	<p>Environmental Parameters display board and LED Display board have been provided near company main gate.</p> <p><i>(Photograph is enclosed in annexure-6 &amp; 6a)</i></p> <p>The EC and Six Monthly EC compliance reports are shown in our company website <a href="http://gscl.blacktigerseo.com/">http://gscl.blacktigerseo.com/</a></p>
<p>xiii</p> <p>The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional office of MOEF, the respective Zonal office of CPCB and the SPCB. The Regional office of this Ministry at Shillong / CPCB /SPCB shall monitor the stipulated conditions.</p>	<p>Being Complied</p>
<p>xiv</p> <p>The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental</p>	<p>Being complied</p>



	conditions and shall also be sent to the respective Regional office of the MOEF at Shillong by e-mail.	
xv	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Shillong.	Same was implemented at the time of Phase-1 Project. Phase-1 project has since been completed.
xvi	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Project Phase-1 has been completed complying with stipulated condition.

**Amendment in Environmental Clearance conditions related sourcing of coal for the Thermal Power Plants in the State of Meghalaya in pursuant to the proceeding of the Committee Constituted by Hon'ble NGT held on 25.03.2019 -reg. Office Order No: J-13015/17/2019-IA.(T) Dated: 16.09.2019.**

SL. NO	CONDITIONS	COMPLIANCE
i	Local coal source from Meghalaya State shall not be used for operation of power plant unless the Coal mine in Meghalaya has a valid mining lease and approved Mine Plan under Mines and Minerals (Development and Regulation) Act, 1957 & its amendments and connected Regulations. In addition, the Coal Mine from the State of Meghalaya shall also have valid Environmental Clearance (leases with more than 5 ha under EIA Notification, 1994; leases with more than equal to 5 ha under EIA Notification, 2006 up to 15.01.2016; all coal mining leases irrespective of lease area from 15.01.2016 onwards).	Being complied
ii	The Project Proponent shall submit the source of the coal mine, its location, along with boundary co-ordinates of lease, quantity of coal transported along with the mode of transportation, copies of	



<p>valid mining lease, approved mine plan and Environmental Clearance to the Ministry and its Regional Office before sourcing the coal from Meghalaya State. Further, this information is to be updated and submitted along with the Six Monthly EC compliance report to the Ministry and its Regional Office.</p>	<p>No coal is being sourced from the state of Meghalaya.</p>
--	--

**Amendment in Environmental Clearance conditions for prevention of Acid Mine Drainage (AMD) by virtue of the recommendation of NGT Committee in the matter of threat to life arising out of Coal Mining in South Garo Hills District vs State of Meghalaya & Ors in OA No. 110(THC)/2012, OA No. 73/2014, OA No. 13/2014, OA No. 186/2014 and OA No. 287/2017 etc. -reg. F. Order No: J-11011/851/2008-IA.II(D) Dated: 16.10.2020.**

SL. NO	CONDITIONS	COMPLIANCE
i	<p>Storage areas / stockpiles for coal in the unit shall be covered and shall have impervious flooring. Garland drains shall be provided around the storage area / Stockpiles to arrest the seepage water from coal yard. The seepage water thus collected shall be treated to meet industry specific / general discharge norms for water quality as applicable. "In this regard, the compliance status shall be furnished to the Regional Office periodically along with the six monthly compliance report.</p>	<p>Coal is stored inside covered shed. Construction of Impervious flooring, garland drains and treatment plant is under progress.</p>

**For Goldstone Cements Ltd.**

Authorized Signatory





# **Annexure – 1**

## **Environmental Monitoring Reports**



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS October - 2020

Stations Name	Parameters Results			
	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>2</sub>
	Limit 100 µg/m <sup>3</sup>	Limit 60 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	52.3	23.4	9.4	18.4
Near Guest House Yamuna Sadan	34.6	20.6	8.1	16.9
Near CCR Material Yard	51.9	21.2	8.3	15.3
Residential Colony	32.4	18.6	7.1	14.8

ND : Not Detected

## PROCESS FUGITIVE EMISSION TEST RESULTS October -2020

Locations	Fugitive Emission Results SPM (µg/m <sup>3</sup> )	Limits (µg/m <sup>3</sup> )
Fly Ash Storage Section	1525	5000
Coal Storage Section	948	2000
Lime Storage Section	1629	5000
Cement Packing Section	1943	5000

Analysed By

Verified By



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



October - 2020

## STACK EMISSION MONITORING RESULTS (Monthly Average Values)

S.No.	Stack Attached To	PM (30 mg/Nm <sup>3</sup> )	SO <sub>2</sub> (1000 mg/Nm <sup>3</sup> )	NO <sub>x</sub> (600 mg/m)
1	Raw Mill & Kiln	22.4	406.7	261.8
2	Coal Mill	21.4	-----	-----
3	ESP	23.1	-----	-----
4	Cement Mill	21.0	-----	-----
5	CPP	PM (50 mg/Nm <sup>3</sup> )	SO <sub>2</sub> (600 mg/Nm <sup>3</sup> )	NO <sub>x</sub> (300 mg/m)
		31.0	306.8	229.7

Analysed By

Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



October - 2020

## NOISE LEVEL MEASUREMENT RESULTS

S.No.	Locations	Day Time (6:00 AM - 9:00 PM)		Night Time (9:00 PM - 6:00 AM)	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	71	75	61	70
2	Near CPP Area	67	75	59	70
3	Near Limestone Storage Yard	64	75	52	70
4	Near Coal Storage Yard	63	75	51	70
5	Near Raw Mill	71	75	64	70
6	Near Cement Mill	70	75	66	70
7	Near Cement Plant CCR Building	65	75	62	70
8	Near CPP TG Building	70	75	65	70

  
Analysed By

  
Verified By



No: GSCL/EHS/ 2020-21/22

To,  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
Arden, Lumpyngngad,  
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - NOVEMBER -2020

Sir,

With reference to the subject as cited above, we are herewith submitting Monthly Environmental Monitoring Reports for the month of NOVEMBER - 2020.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

  
Authorised Signatory  


  
21/12/20

Encl: Test Reports

**Goldstone Cements Limited**

CIN No. : U26940ML2007PLC008298



Report No.: ENV/GSCL/SE/NOV/20-21/01  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

## GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)  
P. O.: Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/NOV/20-21/01		
02	Date of Sampling	27.11.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	178		
06	Exit Velocity of Gas (m/sec)	13.8		
07	Type of Fuel Used	Kiln Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	13.8	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	406.7	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	234.8	mg/Nm <sup>3</sup>	600

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, Digboi Stores Building, 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/GSCL/SE/NOV/20-21/02  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.: Khliehriat  
Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/NOV/20-21/02		
02	Date of Sampling	27.11.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	56		
06	Exit Velocity of Gas (m/sec)	11.8		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	17.1	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	478.2	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	263.5	mg/Nm <sup>3</sup>	600

\*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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



# ENVIROCON

Recognised By

PCB, Assam & MSPCB, Meghalaya

Digboi Stores Building, New Market  
Digboi, Assam - 786 171  
Ph: 03751-264414, 9435008857, 9878028672  
E-mail: envirocon@rediffmail.com  
Website: www.envirocon.net.in



Report No.: ENV/GSCL/SE/NOV/20-21/03  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

## GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/NOV/20-21/03		
02	Date of Sampling	27.11.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	217		
06	Exit Velocity of Gas (m/sec)	17.1		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	12.5	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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/GSCL/SE/NOV/20-21/04  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.:- Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/NOV/20-21/04		
02	Date of Sampling	27.11.2020		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	81		
06	Exit Velocity of Gas (m/sec)	8.3		
07	Type of Fuel Used	Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	28.9	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	396.2	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	162.4	mg/Nm <sup>3</sup>	300



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, Digboi Stores Building, 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/GSCL/SE/NOV/20-21/05

Date : 09/12/2020

Order No. : SOGM/00426/19-20

Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)

P. O.- Khliehriat

Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/NOV/20-21/05		
02	Date of Sampling	28.11.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	58		
06	Exit Velocity of Gas (m/sec)	12.2		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	PM- Particulate Matter	17.1	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable

  
Pankaj Baroi

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, Digboi Stores Building, 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.



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298

**BLACK TIGER**  
CEMENT

## STACK EMISSION MONITORING REPORT

NOVEMBER-2020

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	10.11.2020	
Stack Velocity of Flue gas	:	9.3 m/s	
Stack Temperature	:	359 °K	
Monitoring Period	:	30 m	
Flow Rate	:	26.7 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	27.4	50
Sulphur Dioxide (SO <sub>2</sub> )	(mg/Nm <sup>3</sup> )	377.4	600
Nitrogen Oxide (NO <sub>x</sub> )	(mg/Nm <sup>3</sup> )	174.2	300

  
Analysed By

  
Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298

**BLACKTIGER**  
CEMENT

## STCK EMISSION MONITORING REPORT

NOVEMBER- 2020

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	09.11.2020	
Stack Velocity of Flue gas	:	8.5 m/s	
Stack Temperature	:	336 °K	
Monitoring Period	:	31 m	
Flow Rate	:	28 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	18.6	30

  
Analysed By

  
Verified By



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

NOVEMBER – 2020

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	02.11.2020	20.7	49.2	9.8	10.3
Near CCR Material Yard	03.11.2020	25.3	54.8	7.5	15.9
Near Guest House (Yamuna Sadan)	04.11.2020	16.4	38.6	ND	ND
Residential Colony	05.11.2020	17.9	34.0	ND	ND

ND: Not Detected

  
Analysed By

  
Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

November - 2020

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	09.11.2020	21.9	51.6	8.6	12.8
Near CCR Material Yard	10.11.2020	28.7	55.8	4.3	13.5
Near Guest House (Yamuna Sadan)	11.11.2020	19.4	41.3	ND	ND
Residential Colony	12.11.2020	18.6	29.5	ND	ND

ND: Not Detected

  
Analysed By

  
Verified By



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

November - 2020

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	16.11.2020	19.7	50.5	6.3	9.4
Near CCR Material Yard	18.11.2020	23.8	52.9	5.8	7.3
Near Guest House (Yamuna Sadan)	19.11.2020	16.1	38.2	ND	ND
Residential Colony	20.11.2020	14.6	28.3	ND	ND

ND: Not Detected

Analysed By

Verified By

Report No.: ENV/GSCL/AAQ/NOV/20-21/01  
 Date : 09/12/2020

Order No. : SOGM/00426/19-20  
 Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**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 <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	27.11.2020	22.7	53.9	4.8	11.6
2.	Near CCR (Material Yard)	27.11.2020	27.6	57.2	5.3	14.7
3.	Near Guest House (Yamuna Sadan)	28.11.2020	18.6	39.6	ND	ND
4.	Residential Colony	28.11.2020	16.2	31.4	ND	ND

ND: Not Detected

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/NLM/NOV/20-21/01  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### NOISE LEVEL MEASUREMENT RESULTS

Measurement Date: 27.11.2020

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	69	75	64	70
2	Near CPP Area	64	75	59	70
3	Near Limestone Storage Yard	61	75	54	70
4	Near Coal Storage Yard	63	75	51	70
5	Near Raw Mill	72	75	66	70
6	Near Cement Mill	72	75	67	70
7	HR & Mine's Office	59	75	51	70
8	CPP TG Building	67	75	62	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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No.: ENV/GSCL/FE/NOV/20-21/01  
Date : 09/12/2020Order No. : SOGM/00426/19-20  
Date : 09/03/2020**GOLDSTONE CEMENTS LIMITED**Village- Musiang Lamare (Old)  
P. O:- Khliehriat  
Meghalaya- 793200**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
27.11.2020	Fly-ash Storage Section	833	5000
27.11.2020	Coal Storage Section	456	2000
28.11.2020	Limestone Storage Section	1842	5000
28.11.2020	Cement Packing Section	2103	5000

Sampled &amp; Analysed by: ENVIROCON, Digboi



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, Digboi Stores Building, 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/GSCL/DW/NOV/20-21/01  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O:- Khichriat  
Meghalaya- 793209

### DRINKING WATER ANALYSIS RESULTS

Sample Type : Drinking Water  
Collected By : Jointly by Envirocon & Client

Sample Source : Canteen  
Collected On : 28.11.2020

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.23	1.0
5.	pH	6.91	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	92	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	29	75
10.	Chloride (as Cl), mg/l, Max	8.3	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	<0.01	0.3
15.	Magnesium (as Mg), mg/l, Max	2.6	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	41	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	72	200
22.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max	16	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coll / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/ETP/NOV/20-21/01  
Date : 09/12/2020

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### ETP WATER ANALYSIS RESULTS

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 28.11.2020

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	-	7.21	5.5 - 9.0
02	Temperature	°C	22.1	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	13	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	21	30
05	Chemical Oxygen Demand	mg/l	94	250
06	Oil & Grease	mg/l	Nil	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	2.8	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	8.3	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

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, Digboi Stores Building, 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.





**BLACKTIGER  
C E M E N T**

**HILA NA PAOGE**

Dated: 15.01.2021

No: GSCL/EHS/ 2020-21/23

To,  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
Arden, Lumpynggad,  
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - DECEMBER -2020

Sir,

With reference to the subject as cited above, we are herewith submitting Monthly Environmental Monitoring Reports for the month of DECEMBER - 2020.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

  
Authorised Signatory  


Encl: Test Reports

  
9/1/21

**Goldstone Cements Limited**


CIN No. : U26940ML2007PLC008298

### AMBIENT AIR QUALITY MONITORING RESULTS

December – 2020

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	01.12.2020	19.6	51.8	8.4	7.6
Near CCR Material Yard	02.12.2020	24.8	55.4	4.8	6.2
Near Guest House (Yamuna Sadan)	03.12.2020	14.2	35.3	ND	ND
Residential Colony	04.12.2020	18.5	36.7	ND	ND

ND: Not Detected

  
Analysed By

  
Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

December - 2020

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	10.12.2020	20.3	52.2	6.8	8.6
Near CCR Material Yard	11.12.2020	29.5	54.7	5.1	11.2
Near Guest House (Yamuna Sadan)	12.12.2020	18.9	40.4	ND	ND
Residential Colony	14.12.2020	18.1	29.8	ND	ND

ND: Not Detected

Analysed By

Verified By



Report No. : ENV/GSCL/AAQ/DEC/20-21/01

Date : 05/01/2021

Order No. : SOGM/00426/19-20

Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village: Mustang Lamare (Old); PO: Khliehriat  
Meghalaya- 793200

**AMBIENT AIR QUALITY TEST RESULTS**

LOCATIONS ↓	Date of Sampling	PM 2.5 (µg/m <sup>3</sup> )	PM 10 (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )	NH <sub>3</sub> (µg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	O <sub>3</sub> (µg/m <sup>3</sup> )	B(a)P (ng/m <sup>3</sup> )	C <sub>6</sub> H <sub>6</sub> (µg/m <sup>3</sup> )	NI (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Pb (µg/m <sup>3</sup> )
LIMITS →	-	60 (24 hrs. Average)	100 (24 hrs. Average)	80 (24 hrs. Average)	80 (24 hrs. Average)	400 (24 hrs. Average)	4.0 (1 hr. Average)	180 (1 hr. Average)	1.0 (Annual Average)	5.0 (Annual Average)	20 (Annual Average)	6.0 (Annual Average)	1.0 (24 hrs. Average)
Near CPP (Water Reservoir)	21.12.2020	25.6	44.5	3.8	12.7	15.3	ND	4.2	ND	ND	ND	ND	ND
Near CCR (Material Yard)	21.12.2020	27.2	47.3	4.4	13.4	14.8	ND	4.5	ND	ND	ND	ND	ND
Near Guest House (Yamuna Sadan)	22.12.2020	19.5	34.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Residential Colony	23.12.2020	17.2	35.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analysis Protocol: IS 5182

ND: Not Detected



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, Digboi Stores Building, New Market, Digboi - 786171, Assam.

### AMBIENT AIR QUALITY MONITORING RESULTS

December - 2020

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	28.12.2020	20.8	51.6	7.2	8.6
Near CCR Material Yard	29.12.2020	24.5	53.8	5.8	5.4
Near Guest House (Yamuna Sadan)	30.12.2020	17.2	38.7	ND	ND
Residential Colony	31.12.2020	15.1	27.9	ND	ND

ND: Not Detected



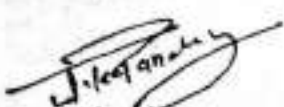
Analysed By



Verified By

## STACK EMISSION MONITORING REPORT

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)	
Date of Monitoring	:	07.12.2020	
Stack Velocity of Flue gas	:	17.46 m/s	
Stack Temperature	:	452 °K	
Monitoring Period	:	29 m	
Flow Rate	:	24 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	18.3	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	402.1	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NO <sub>x</sub> )	254.0	600	(mg/Nm <sup>3</sup> )



Analysed By



Verified By



Report No.: ENV/GSCL/SE/DEC/20-21/01  
 Date : 05/01/2021

Order No. : SOGM/00426/19-20  
 Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/20-21/01		
02	Date of Sampling	21.12.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	104		
06	Exit Velocity of Gas (m/sec)	12.4		
07	Type of Fuel Used	Kiln Coal		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	22.9	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	536.7	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	302.8	mg/Nm <sup>3</sup>	600



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



# POLLUTION AND PROJECT CONSULTANTS

ENVIRONMENTAL POLLUTION CONTROL - Air, Effluent, Pharmaceuticals  
& Chemical Project Engineers. EIA & Disaster Management Study

Page: 1 of 3

## TEST REPORT STACK GAS

Customer Name : M/s. Envirocon,		Report No. : G/20(12)/28
Address : Digboi Stores Building, New Market, Digboi - 786171, Assam		Report Date : 12.01.2021
Type of Sample : Stack Gas		Date of Sampling : 24.12.2020
Sampling Location : Raw Mill KIn Stack, GOLDSTONE CEMENTS LIMITED		Sample Received Date : 26.12.2020
		Sample Id No. : G/20(12)/28
		Test Start Date : 26.12.2020
		Test End Date : 12.01.2021

A. GENERAL INFORMATION ABOUT STACK		B. ANALYSIS/CHARACTERISTICS OF FUEL	
1 STACK CONNECTED TO : Raw Mill KIn		1 EMISSION DUE TO : Pressure activity	
2 MATERIAL OF CONSTRUCTION : M.S.		2 FUEL USED : Coal & Raw Material	
3 SHAPE OF THE DUCT : Circular		3 FUEL CONSUMPTION : 7 TPH	
4 HEIGHT OF THE STACK :		4 CALORIFIC VALUE (K-Cal/Kg) : --	
a) From Ground Level (M) : 40		5 SULPHUR CONTENT (% by wt) : --	
b) From Roof Level (M) : --		6 ASH CONTENT (% by wt) : --	
5 DIAMETER OF THE STACK :		7 AIR FLOW : --	
a) Top (M) : --			
b) Bottom (M) : --		C : CAPACITY	
c) Sampling Point (M) : 3.15		a) RATED : 1700 TPD	
6 HEIGHT OF THE SAMPLING PORT :		b) RUNNING : 1700 TPD	
a) From Ground Level (M) : 20		Lead	
b) From Lower Obstructing Zone (M) : --		a) RATED : --	
7 WHETHER STACK IS PROVIDED WITH PERMANENT PLATFORM /LADDER : Permanent & Well		b) RUNNING : --	
		E : POLLUTION CONTROL DEVICE : Bag Filter	

D : RESULT OF SAMPLING				
Sl. No.	Parameter	Unit	Method of Test (Reference)	Result
1	Temperature of emission	deg C	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 184
2	Barometric Pressure	mmHg	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 749
3	Velocity of Gas Flow	m/Sec	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 12.4
4	Quantity of Gas Flow	Nm <sup>3</sup> /hr	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 223804.03
5	Concentration of Particulate Matter	mg/Nm <sup>3</sup>	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 16.8
6	Particulate Matter Normalised to 12% CO <sub>2</sub>	mg/Nm <sup>3</sup>	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: --
7	Concentration of Sulphur Dioxide	mg/Nm <sup>3</sup>	IS:11255 (Part 2):1985 (RA 2014)	: 537
8	Concentration of Oxides of Nitrogen	mg/Nm <sup>3</sup>	IS:11255 (Part 7):2005 (RA 2017)	: 303
9	Concentration of Oxygen	% v/v	APHA (Air Analysis) (3 <sup>rd</sup> Edition) Method-134	: 14.4
10	Concentration of Carbon Dioxide	% v/v	APHA (Air Analysis) (3 <sup>rd</sup> Edition) Method-134	: 4.8
11	Concentration of Carbon Monoxide	% v/v	APHA (Air Analysis) (3 <sup>rd</sup> Edition) Method-134	: <0.2

...end of report...

The results relate only to the parameters listed.



**Tanmoy Chakrabarty**  
Quality Manager

Authorised Signatory  
For Pollution And Project Consultants

\*Test Certificate shall not be reproduced except in full, without written approval of the Chief Executive or Technical Manager.

LABORATORY FOR ANALYSIS OF AIR, WATER, EFFLUENT, SOIL, SLUDGE, SOLIDWASTE, COAL, ORE, ETC.

Office & Laboratory : P-146, Bangur Avenue, Block - A, Kolkata - 700 055  
Phone : (033) 2574-3418 • E-mail : ppcconsultants@awppco.in • Web : www.awppcoenvirogroup.com



# POLLUTION AND PROJECT CONSULTANTS

ENVIRONMENTAL POLLUTION CONTROL - Air, Effluent, Pharmaceuticals  
& Chemical Project Engineers. EIA & Disaster Management Study

Page: 1 of 1

## TEST REPORT STACK GAS

Customer Name	: M/s. Envirocon,	Report No.	: G/20/12/28
Address	: Digboi Stores Building, New Market, Digboi - 786171, Assam	Report Date	: 12.01.2021
Type of Sample	: Stack Gas	Date of Sampling	: 24.12.2020
Sampling Location	: Raw Mill Kiln Stack, GOLDSTONE CEMENTS LIMITED	Sample Received Date	: 26.12.2020
		Sample Id No.	: G/20/12/28
		Test Start Date	: 26.12.2020
		Test End Date	: 12.01.2021

### D - RESULT OF SAMPLING

Sl. No.	Parameter	Unit	Method of Test (Reference)	Result
12	Hydrogen Chloride (HCl)	(mg/Nm <sup>3</sup> )	USEPA-9212	: < 1.50
13	Hydrogen Fluoride (HF)	(mg/Nm <sup>3</sup> )	USEPA-9214	: < 0.50
14	Mercury(as Hg)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.50
15	Cadmium(as Cd)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
16	Antimony(as Sb)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.0003
17	Arsenic(as As)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.50
18	Lead(as Pb)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
19	Cobalt(as Co)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
20	Chromium(as Cr)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
21	Copper(as Cu)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
22	Manganese(as Mn)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
23	Nickel(as Ni)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
34	Vanadium(as V)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
25	Thorium(Th)	(mg/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.0003
26	Total Organic Carbon (TOC)	(mg/Nm <sup>3</sup> )	Approved method for the sampling, analysis of air pollutants ISWI/PA, 2007	: < 0.5

The results relate only to the parameters tested.

...and of report.



*Tanmoy Chakrabarty*  
Tanmoy Chakrabarty  
Quality Manager  
Authorized Signatory

For Pollution And Project Consultants

\*This Certificate shall not be reproduced except in full, without written approval of the Chief Executive or Technical Manager.

LABORATORY FOR ANALYSIS OF AIR, WATER, EFFLUENT, SOIL, SLUDGE, SOLIDWASTE, COAL, ORE, ETC.

Office & Laboratory : P-145, Bangur Avenue, Block - A, Kolkata - 700 055

Phone : (033) 2574-3418 • E-mail : ppconsultants@swppcc.in • Web : www.swppccenvirogroup.com





# POLLUTION AND PROJECT CONSULTANTS

ENVIRONMENTAL POLLUTION CONTROL - Air, Effluent, Pharmaceuticals  
& Chemical Project Engineers. EIA & Disaster Management Study

Page: 1 of 1

## TEST REPORT STACK GAS

Customer Name	: M/s. Envirocon,	Report No.	: G/20(12)/28
Address	: Digboi Stores Building, New Market, Digboi - 786171, Assam	Report Date	: 12.01.2021
Type of Sample	: Stack Gas	Date of Sampling	: 24.12.2020
Sampling Location	: Raw Mill Kiln Stack, GOLDSTONE CEMENTS LIMITED	Sample Received Date	: 26.12.2020
		Sample Id No.	: G/20(12)/28
		Test Start Date	: 26.12.2020
		Test End Date	: 12.01.2021

### D - RESULT OF SAMPLING

Sl. No.	Parameter	Unit	Method of Test (Reference)	Result
1	1234678-Heptachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.00024
2	123478-Hexachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
3	123789-Hexachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
4	12378-Pentachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.034
5	2378-Tetrachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.005
6	123678-Hexachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
7	Octachlorodibenzo-p-dioxin	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.00015
8	73478-Pentachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0072
9	1734678-Heptachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.00024
10	1234785-Heptachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.00024
11	123478-Hexachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
12	123678-Hexachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
13	123789-Hexachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
14	12378-Pentachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.00072
15	234678-Hexachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0024
16	2378-Tetrachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.0005
17	Octachlorodibenzofuran	ng.TEQ	USEPA 13A/GA.16.4.73	: <0.00015

The results relate only to the parameters tested.

...end of report...



*Thakraborty*  
Tapan K. Thakraborty  
Quality Manager  
Authorized Signatory

For Pollution And Project Consultants

\*Test Certificate shall not be reproduced except in full, without written approval of the Chief Executive or Technical Manager.

LABORATORY FOR ANALYSIS OF AIR, WATER, EFFLUENT, SOIL, SLUDGE, SOLIDWASTE, COAL, ORE, ETC.



Office & Laboratory : P-145, Bangur Avenue, Block - A, Kolkata - 700 055

Phone : (033) 2574-3418 • E-mail : ppconsultants@swppcc.in • Web : www.swppccenvirogroup.com

## STACK EMISSION MONITORING REPORT

Name of Stack & Stack No.	:	Coal Mill (2)
Date of Monitoring	:	08.12.2020
Stack Velocity of Flue gas	:	9.9 m/s
Stack Temperature	:	329 °K
Monitoring Period	:	58 m
Flow Rate	:	17.1 LPM

Parameters	Results	Standard Limits	Unit
Particulate Matter	20.1	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	443.1	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NOX)	279.2	600	(mg/Nm <sup>3</sup> )

  
Analysed By  
Verified By

Report No.: ENV/GSCL/SE/DEC/20-21/02  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.-: Khliehriat  
Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/20-21/02		
02	Date of Sampling	21.12.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	61		
06	Exit Velocity of Gas (m/sec)	7.8		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	21.7	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	312.7	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	230.9	mg/Nm <sup>3</sup>	600

\*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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



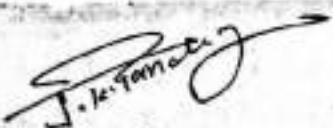
# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	09.12.2020	
Stack Velocity of Flue gas	:	10.6 m/s	
Stack Temperature	:	512 °K	
Monitoring Period	:	41 m	
Flow Rate	:	24.4 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	19.7	30	(mg/Nm <sup>3</sup> )

  
Analysed By

  
Verified By

Regd. Office and Works: Village - Musiang Lamare Old, Khliehriat, Dist East Jaintia Hills, Meghalaya, Pin-793200,  
Marketing Office : 5A, 5<sup>th</sup> Floor, Shine - Tower, 57 Satijyamati Road, Arya Chowk, Rahaberi, Guwahati, Assam-781008

Report No.: ENV/GSCL/SE/DEC/20-21/03

Date : 05/01/2021

Order No. : SOGM/00426/19-20

Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)

P. O.:- Khliehriat

Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/20-21/03		
02	Date of Sampling	22.12.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	219		
06	Exit Velocity of Gas (m/sec)	15.3		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	PM- Particulate Matter	21.7	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

## STACK EMISSION MONITORING REPORT

Name of Stack & Stack No.	:	CPP (5)
Date of Monitoring	:	11.12.2020
Stack Velocity of Flue gas	:	9.0 m/s
Stack Temperature	:	397 °K
Monitoring Period	:	35 m
Flow Rate	:	28.8 LPM

Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	28.3	50
Sulphur Dioxide (SO <sub>2</sub> )	(mg/Nm <sup>3</sup> )	361.0	600
Nitrogen Oxide (NO <sub>X</sub> )	(mg/Nm <sup>3</sup> )	167.5	300

  
Analysed By

  
Verified By



Report No.: ENV/GSCL/SE/DEC/20-21/04  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/20-21/04		
02	Date of Sampling	22.12.2020		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	89		
06	Exit Velocity of Gas (m/sec)	8.5		
07	Type of Fuel Used	Coal		
08	<b>Analysis Results of Flue Gas</b>			
Sl No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	33.3	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	438.6	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	202.8	mg/Nm <sup>3</sup>	300
iv.	Mercury (as Hg)	0.018	mg/Nm <sup>3</sup>	0.05



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

## STCK EMISSION MONITORING REPORT

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	10.12.2020	
Stack Velocity of Flue gas	:	8.7 m/s	
Stack Temperature	:	342 °K	
Monitoring Period	:	69 m	
Flow Rate	:	14.4 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	17.5	30

  
Analysed By  
Verified By

Report No.: ENV/GSCL/SE/DEC/20-21/05  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/DEC/20-21/05		
02	Date of Sampling	23.12.2020		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	58		
06	Exit Velocity of Gas (m/sec)	12.3		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	16.4	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No.: ENV/GSCL/NLM/DEC/20-21/01

Date : 05/01/2021

Order No. : SOGM/00426/19-20

Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O:- Khliehriat  
Meghalaya-793200

**NOISE LEVEL MEASUREMENT RESULTS**

Measurement Date: 23.12.2020

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	69	75	60	70
2	Near CPP Area	58	75	53	70
3	Near Limestone Storage Yard	56	75	50	70
4	Near Coal Storage Yard	66	75	58	70
5	Near Raw Mill	71	75	63	70
6	Near Cement Mill	65	75	62	70
7	Near Administrative Building	63	75	54	70
8	Power House	71	75	66	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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/FE/DEC/20-21/01

Date : 05/01/2021

Order No. : SOGM/00426/19-20

Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
21.12.2020	Fly-ash Storage Section	888	5000
22.12.2020	Coal Storage Section	449	2000
22.12.2020	Limestone Storage Section	1662	5000
23.12.2020	Cement Packing Section	1619	5000

Sampled & Analysed by: ENVIROCON, Digboi



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/ETP/DEC/20-21/01  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.: Khliehriat  
Meghalaya-793200

**ETP WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 23.12.2020

Sl No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.7	5.5 - 9.0
02	Temperature	°C	18.6	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	11.5	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	16	30
05	Chemical Oxygen Demand	mg/l	63	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	3.6	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	9.9	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/PW/DEC/20-21/01  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**PROCESS WATER ANALYSIS RESULTS**

Sample Type : Waste Water  
Sample Source : Condenser Cooling Point

Collected By: Jointly by Envirocon & Client  
Collected On: 23.12.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	pH	6.6	-	6.5 - 8.5
2.	Temperature	19.2	°C	Not more than 5°C higher than the intake water temperature
3.	Residual Free Chlorine	<0.01	mg/l	0.5



Pankaj Baroi

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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No.: ENV/GSCL/PW/DEC/20-21/02  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O:- Khliehriat  
Meghalaya- 793200

**WASTE WATER ANALYSIS RESULTS**

Sample Type : Waste Water  
Sample Source : Boiler Blow Down

Collected By: Jointly by Envirocon & Client  
Collected On: 23.12.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Total Suspended Solids	18.9	mg/l	100
2.	Oil & Grease	<0.1	mg/l	20
3.	Copper	<0.01	mg/l	1.0
4.	Iron	<0.01	mg/l	1.0



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/PW/DEC/20-21/03  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.:- Khliehriat  
Meghalaya- 793200

**WASTE WATER ANALYSIS RESULTS**

Sample Type : Waste Water  
Sample Source : Cooling Tower Blow Down

Collected By: Jointly by Envirocon & Client  
Collected On: 23.12.2020

Sl. No.	Parameters	Analysis Results	Units	Limit
1.	Residual Free Chlorine	<0.01	mg/l	0.5
2.	Zinc	<0.01	mg/l	1.0
3.	Total Chromium	<0.01	mg/l	0.2
4.	Phosphate	<0.01	mg/l	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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No. : ENV/GSCL/DW/DEC/20-21/01  
Date : 05/01/2021

Order No. : SOGM/00426/19-20  
Date : 19/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Mustang Lamara (Old)  
P.O.: Khlehrat, Meghalaya- 791201

### DRINKING WATER ANALYSIS RESULTS

Sample Type : Drinking Water  
Collected By : Jointly by Envirocon & Client

Sample Source : Canteen  
Collected On : 23.12.2020

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.16	1.0
5.	pH	6.8	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	144	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	33	75
10.	Chloride (as Cl), mg/l, Max	6.8	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	<0.01	0.3
15.	Magnesium (as Mg), mg/l, Max	3.6	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	65	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	82	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	12	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected



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, Digboi Stores Building, New Market, Digboi - 786 171, Assam.

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

No: GSCL/EHS/ 2020-21/24

To,  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
Arden, Lumpyngngad,  
Shillong-793014.

**Sub: Submission of Monthly Environmental Monitoring Reports - JANUARY -2021**

Sir,

With reference to the subject as cited above, we are herewith submitting Monthly Environmental Monitoring Reports for the month of JANUARY-2021.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

Authorised Signatory



Encl: Test Reports



**Goldstone Cements Limited**

CIN No. : U26940ML2007PLC008298



**AMBIENT AIR QUALITY MONITORING RESULTS**
**January – 2021**

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	01.01.2021	33.9	53.7	11.4	5.5
Near CCR Material Yard	02.01.2021	37.4	57.5	8.3	4.7
Near Guest House (Yamuna Sadan)	04.01.2021	18.7	32.8	<1.0	<1.0
Residential Colony	05.01.2021	15.0	26.6	<1.0	<1.0

ND: Not Detected

  
 Analysed By

  
 Verified By

### AMBIENT AIR QUALITY MONITORING RESULTS

January - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	11.01.2021	34.6	57.5	11.4	6.2
Near CCR Material Yard	12.01.2021	38.2	64.1	8.1	4.8
Near Guest House (Yamuna Sadan)	15.01.2021	17.9	34.9	<1.0	<1.0
Residential Colony	16.01.2021	16.3	27.1	<1.0	<1.0

ND: Not Detected



Analysed By



Verified By

Report No.: ENV/GSCL/AAQ/JAN/20-21/01  
 Date : 01/02/2021

 Order No. : SOGM/00426/19-20  
 Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

 Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**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 <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	Limit(s) →		50 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	22.01.2021	38.4	67.8	6.8	15.2
2.	Near COR (Material Yard)	22.01.2021	41.3	74.8	5.1	10.6
3.	Near Guest House (Tamuna Sadan)	23.01.2021	16.1	34.2	<1.0	<1.0
4.	Residential Colony	23.01.2021	14.2	29.3	<1.0	<1.0

Analysis Protocol: IS 5182

Sampled &amp; Analysed by: ENVIROCON, Digboi



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, Digboi Stores Building, 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.

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298




## AMBIENT AIR QUALITY MONITORING RESULTS

January - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	25.01.2021	35.9	66.7	12.5	7.1
Near CCR Material Yard	27.01.2021	36.2	72.2	8.7	5.3
Near Guest House (Yamuna Sadan)	28.01.2021	19.8	31.6	<1.0	<1.0
Residential Colony	29.01.2021	17.2	28.9	<1.0	<1.0

ND: Not Detected

  
Analysed By

  
Verified By



# GOLDSTONE CEMENTS LIMITED


CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

January - 2021

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)	
Date of Monitoring	:	05.01.2021	
Stack Velocity of Flue gas	:	15.67 m/s	
Stack Temperature	:	438 °K	
Monitoring Period	:	49 m	
Flow Rate	:	20.3 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	21.6	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	426.7	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NOX)	237.3	600	(mg/Nm <sup>3</sup> )

  
Analysed By

  
Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

January - 2021

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	06.01.2021	
Stack Velocity of Flue gas	:	9.9 m/s	
Stack Temperature	:	322 °K	
Monitoring Period	:	57 m	
Flow Rate	:	17.4 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	18.4	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	385.6	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NO <sub>X</sub> )	258.2	600	(mg/Nm <sup>3</sup> )

  
Analysed By

  
Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

January - 2021

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	07.01.2021	
Stack Velocity of Flue gas	:	11.1 m/s	
Stack Temperature	:	498 °K	
Monitoring Period	:	36 m	
Flow Rate	:	27.9 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	19.9	30	(mg/Nm <sup>3</sup> )


  
Analysed By

  
Verified By

## STCK EMISSION MONITORING REPORT

January - 2021

Name of Stack & Stack No.	:	Cement Mill (4)		
Date of Monitoring	:	08.01.2021		
Stack Velocity of Flue gas	:	8.9 m/s		
Stack Temperature	:	339 °K		
Monitoring Period	:	68 m		
Flow Rate	:	14.8 LPM		
Parameters	Unit	Results	Standard Limits	
Particulate Matter	(mg/Nm <sup>3</sup> )	17.6	30	


  
Analysed By  
Verified By



## STACK EMISSION MONITORING REPORT

January - 2021

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	09.01.2021	
Stack Velocity of Flue gas	:	9.5 m/s	
Stack Temperature	:	388 °K	
Monitoring Period	:	32 m	
Flow Rate	:	31.3 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	29.7	50
Sulphur Dioxide (SO <sub>2</sub> )	(mg/Nm <sup>3</sup> )	443.1	600
Nitrogen Oxide (NO <sub>x</sub> )	(mg/Nm <sup>3</sup> )	209.4	300

  
Analysed By  
Verified By

Report No.: ENV/GSCL/SE/JAN/20-21/01  
Date : 01/02/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/20-21/01		
02	Date of Sampling	22.01.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	172		
06	Exit Velocity of Gas (m/sec)	12.9		
07	Type of Fuel Used	Kiln Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	16.2	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	525.8	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	251.7	mg/Nm <sup>3</sup>	600



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, Digboi Stores Building, 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/GSCL/SE/JAN/20-21/02

Date : 01/02/2021

Order No. : SOGM/00426/19-20

Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)

P. O.- Khliehriat

Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/20-21/02		
02	Date of Sampling	22.01.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	51		
06	Exit Velocity of Gas (m/sec)	12.1		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	18.4	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	438.7	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	226.4	mg/Nm <sup>3</sup>	500

\*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, Digboi Stores Building, 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/GSCL/SE/JAN/20-21/03  
Date : 01/02/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/20-21/03		
02	Date of Sampling	22.01.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	234		
06	Exit Velocity of Gas (m/sec)	22.6		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
SL No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	PM- Particulate Matter	23.7	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No.: ENV/GSCL/SE/JAN/20-21/04

Date : 01/02/2021

Order No. : SOGM/00426/19-20

Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)

P. O.- Khliehriat

Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/20-21/04		
02	Date of Sampling	23.01.2021		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	94		
06	Exit Velocity of Gas (m/sec)	8.1		
07	Type of Fuel Used	Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	32.6	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	534.9	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	242.7	mg/Nm <sup>3</sup>	300

  
Pankaj Baroi

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, Digboi Stores Building, 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/GSCL/SE/JAN/20-21/05

Order No. : SOGM/00426/19-20

Date : 01/02/2021

Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/JAN/20-21/05		
02	Date of Sampling	23.01.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	61		
06	Exit Velocity of Gas (m/sec)	15.6		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	PM- Particulate Matter	12.8	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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/GSCL/NLM/JAN/20-21/01  
 Date : 01/02/2021

Order No. : SOGM/00426/19-20  
 Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old)  
 P. O:- Khliebriat  
 Meghalaya- 793200

**NOISE LEVEL MEASUREMENT RESULTS**

Sl. No.	Location(s)	Date Of Measurement	Day Time		Night Time	
			Leq (dB-A)	Limit (dB-A)	Leq (dB-A)	Limit (dB-A)
1	Near Guest House	22.01.2021	65.4	75	57.8	70
2	Near Residential Colony	23.01.2021	63.2	75	56.1	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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/FE/JAN/20-21/01  
Date : 01/02/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.:- Khliehriat  
Meghalaya- 793200

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
22.01.2021	Fly-ash Storage Section	2058	5000
22.01.2021	Coal Storage Section	623	2000
23.01.2021	Limestone Storage Section	1782	5000
23.01.2021	Cement Packing Section	2264	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, Digboi Stores Building, 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/GSCL/ETP/JAN/20-21/01  
Date : 01/02/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**ETP WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
Collected On: 23.01.2021

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.86	5.5 - 9.0
02	Temperature	°C	18.2	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	16	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	23	30
05	Chemical Oxygen Demand	mg/l	107	250
06	Oil & Grease	mg/l	Nil	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	2.3	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	7.1	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No. : ENV/GSCL/DW/JAN/20-21/01  
Date : 01/02/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Murlang Lamare (Old), P. O.- Khliehria  
Meghalaya- 793200

### DRINKING WATER ANALYSIS RESULTS

Sample Type : Drinking Water  
Collected By : Jointly by Envirocon & Client

Sample Source : Cantoon  
Collected On : 23.01.2021

Sl. No.	Parameters	Results	Destrable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	<1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.41	1.0
5.	pH	6.88	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	122	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	31	75
10.	Chloride (as Cl), mg/l, Max	7.6	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	<0.01	0.3
15.	Magnesium (as Mg), mg/l, Max	1.8	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	52	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	62	200
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	23	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium, (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected



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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

No: GSCL/EHS/2020-21/26

To,  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
Arden, Lumpynggad,  
Shillong-793014.

Sub: Submission of Monthly Environmental Monitoring Reports - FEBRUARY -2021

Sir,


With reference to the subject as cited above, we are herewith submitting Monthly Environmental Monitoring Reports for the month of FEBRUARY-2021.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

  
Authorised Signatory



Encl: Test Reports



**Goldstone Cements Limited**

CIN No. : U26940ML2007PLC008298

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

February – 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80µg/m <sup>3</sup>
Near CPP Water Reservoir	02.02.2021	36.7	65.9	11.4	11.7
Near CCR Material Yard	03.02.2021	41.7	71.1	8.3	8.5
Near Guest House (Yamuna Sadan)	04.02.2021	20.6	39.3	<5.0	<6.0
Residential Colony	05.02.2021	18.6	30.1	<5.0	<6.0

Analysed By

Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLCD08298



## AMBIENT AIR QUALITY MONITORING RESULTS

February - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	09.02.2021	38.3	60.3	11.9	7.0
Near CCR Material Yard	10.02.2021	42.0	74.9	8.9	6.9
Near Guest House (Yamuna Sadan)	11.02.2021	23.3	42.5	<5.0	<6.0
Residential Colony	12.02.2021	17.6	31.7	<5.0	<6.0

Analysed By

Verified By





# ENVIROCON

Recognised By

PCB, Assam & MSPCB, Meghalaya

Digboi Stores Building, New Market  
Digboi, Assam - 786 171  
Ph: 03761-264414, 9436008867, 8878028672  
E-mail: envirocon@rediffmail.com  
Website: www.envirocon.net.in



Report No.: ENV/GSCL/AAQ/FEB/20-21/01

Date : 05/03/2021

Order No. : SOGM/00426/19-20

Date : 09/03/2020

### GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.- Khliehriat

Meghalaya- 793200

### 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 <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP (Water Reservoir)	19.02.2021	35.2	58.7	6.1	11.8
2.	Near CCR (Material Yard)	19.02.2021	38.4	62.1	5.8	9.3
3.	Near Guest House (Yamuna Sadan)	20.02.2021	14.2	35.3	<5.0	<6.0
4.	Residential Colony	20.02.2021	13.6	31.7	<5.0	<6.0

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi

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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

February - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	24.02.2021	37.0	62.9	12.5	13.3
Near CCR Material Yard	25.02.2021	41.3	69.4	8.7	8.5
Near Guest House (Yamuna Satlan)	26.02.2021	26.1	41.0	<5.0	<6.0
Residential Colony	27.02.2021	18.5 <sup>2</sup>	32.2	<5.0	<6.0

  
Analysed By

  
Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

February - 2021

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)
Date of Monitoring	:	10.02.2021
Stack Velocity of Flue gas	:	18.2 m/s
Stack Temperature	:	442 °K
Monitoring Period	:	43 m
Flow Rate	:	23.3 LPM

Parameters	Results	Standard Limits	Unit
Particulate Matter	21.2	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	533.3	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide(NO <sub>x</sub> )	307.1	600	(mg/Nm <sup>3</sup> )

Analysed By

Verified By

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

February - 2021

Name of Stack & Stack No.	:	Coal Mill (2)
Date of Monitoring	:	11.02.2021
Stack Velocity of Flue gas	:	12.0 m/s
Stack Temperature	:	328 °K
Monitoring Period :	:	48 m
Flow Rate	:	20.7 LPM

Parameters	Results	Standard Limits	Unit
Particulate Matter	17.8	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	352.8	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NO <sub>x</sub> )	125.6	600	(mg/Nm <sup>3</sup> )

  
Analysed By

  
Verified By



Report No.: ENV/GSCL/SE/FEB/20-21/01  
Date : 05/03/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/20-21/01		
02	Date of Sampling	19.02.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	54		
06	Exit Velocity of Gas (m/sec)	10.6		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	PM- Particulate Matter	17.3	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	541.3	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	314.5	mg/Nm <sup>3</sup>	600

\*NA: Not Applicable



Checked By: Mr. Panikaj Barot, 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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

February - 2021

Name of Stack & Stack No.	:	Cooler ESP(3)	
Date of Monitoring	:	11.02.2021	
Stack Velocity of Flue gas	:	12.3 m/s	
Stack Temperature	:	495 °K	
Monitoring Period	:	31 m	
Flow Rate	:	31.8 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	20.6	30	(mg/Nm <sup>3</sup> )

  
Analysed By

  
Verified By

Report No.: ENV/GSCL/SE/FEB/20-21/02  
Date : 05/03/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Mustang Lamare (Old)  
P. O.: Khliehriat  
Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/20-21/02		
02	Date of Sampling	19.02.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	229		
06	Exit Velocity of Gas (m/sec)	18.1		
07	Type of Fuel Used	NA*		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1.	PM- Particulate Matter	21.6	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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.

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

February - 2021

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	12.02.2021	
Stack Velocity of Flue gas	:	8.3 m/s	
Stack Temperature	:	379 °K	
Monitoring Period	:	36 m	
Flow Rate	:	28.0 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	34.2	50
Sulphur Dioxide (SO <sub>2</sub> )	(mg/Nm <sup>3</sup> )	459.5	600
Nitrogen Oxide (NOX)	(mg/Nm <sup>3</sup> )	237.3	300

  
Analysed By

  
Verified By

Report No.: ENV/GSCL/SE/FEB/20-21/03

Date : 05/03/2021

Order No. : SOGM/D0426/19-20

Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamara (Old)

P. O.- Khliehriat

Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/20-21/03		
02	Date of Sampling	20.02.2021		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	90		
06	Exit Velocity of Gas (m/sec)	8.4		
07	Type of Fuel Used	Coal		
08	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	PM- Particulate Matter	35.7	mg/Nm <sup>3</sup>	50
II.	Sulphur Dioxide (as SO <sub>2</sub> )	518.2	mg/Nm <sup>3</sup>	600
III.	Oxides of Nitrogen (as NO <sub>x</sub> )	255.6	mg/Nm <sup>3</sup>	300



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, Digboi Stores Building, 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.



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STCK EMISSION MONITORING REPORT

February - 2021

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	12.02.2021	
Stack Velocity of Flue gas	:	12.3 m/s	
Stack Temperature	:	339 °K	
Monitoring Period	:	49 m	
Flow Rate	:	20.6 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	16.2	30

  
Analysed By

  
Verified By

Report No.: ENV/GSCL/SE/FEB/20-21/04  
 Date : 05/03/2021

Order No. : SOGM/00426/19-20  
 Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
 P. O.: - Khliehriat  
 Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	GSCL/SE/FEB/20-21/04		
02	Date of Sampling	20.02.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	58		
06	Exit Velocity of Gas (m/sec)	15.1		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	PM- Particulate Matter	14.3	mg/Nm <sup>3</sup>	30

\*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, Digboi Stores Building, 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 (C/P), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/FE/FEB/20-21/01  
 Date : 05/03/2021

Order No. : SOGM/00426/19-20  
 Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
 P. O.- Khliehriat  
 Meghalaya- 793200

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Date	Locations	Fugitive Emission Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
19.02.2021	Fly-ash Storage Section	2112	5000
19.02.2021	Coal Storage Section	962	2000
20.02.2021	Limestone Storage Section	1907	5000
20.02.2021	Cement Packing Section	2513	5000



Checked By: Mr. Panikaj Barua, 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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/ETP/FEB/20-21/01  
Date : 05/03/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old)  
P. O.: - Khliehriat  
Meghalaya- 793200

### ETP WATER ANALYSIS RESULTS

Sample Type : Treated ETP Water  
Sample Source : ETP Outlet

Collected By: jointly by Envirocon & Client  
Collected On: 20.02.2021

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.81	5.5 - 9.0
02	Temperature	°C	21.6	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	19	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	21	30
05	Chemical Oxygen Demand	mg/l	96	250
06	Oil & Grease	mg/l	<4.0	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	1.8	5.0
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	8.3	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No. : ENV/GSCL/DW/FEB/20-21/01  
Date : 05/03/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O:- Khliehriat  
Meghalaya-793200

### DRINKING WATER ANALYSIS RESULTS

Sample Type : Drinking Water  
Collected By : jointly by Envirocon & Client

Sample Source : Canteen  
Collected On : 20.02.2021

Sl. No.	Parameters	Results	Desirable Limit (IS: 10500)
1.	Colour, Hazen Units, Max	1	5
2.	Odour	Odourless	Agreeable
3.	Taste	Acceptable	Agreeable
4.	Turbidity, NTU, Max	0.31	1.0
5.	pH	6.91	6.5 - 8.5
6.	Total Dissolved Solids, mg/l, Max	115	500
7.	Aluminium (as Al), mg/l, Max	ND	0.03
8.	Boron (as B), mg/l, Max	ND	0.5
9.	Calcium (as Ca), mg/l, Max	26	75
10.	Chloride (as Cl), mg/l, Max	9.2	250
11.	Copper (as Cu), mg/l, Max	ND	0.05
12.	Fluorides (as F), mg/l, Max	ND	1.0
13.	Free Residual Chlorine, mg/l, Min	ND	0.2
14.	Iron (as Fe), mg/l, Max	<0.01	0.3
15.	Magnesium (as Mg), mg/l, Max	2.2	30
16.	Manganese (as Mn), mg/l, Max	ND	0.1
17.	Zinc (as Zn), mg/l, Max	ND	5.0
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	<0.01	45
19.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	48	200
21.	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	58	200
22.	Total Hardness (as CaCO <sub>3</sub> ), mg/l, Max	18	200
23.	Cadmium (as Cd), mg/l, Max	ND	0.003
24.	Cyanide (as CN), mg/l, Max	ND	0.05
25.	Lead (as Pb), mg/l, Max	ND	0.01
26.	Mercury (as Hg), mg/l, Max	ND	0.001
27.	Selenium (as Se), mg/l, Max	ND	0.01
28.	Total Arsenic (as As), mg/l, Max	ND	0.01
29.	Total Chromium (as Cr), mg/l, Max	ND	0.05
30.	Anionic Detergents (as MBAS), mg/l	ND	0.2
31.	Total Coliform, MPN/100 ml	NIL	10 Max
32.	Faecal Coliforms/ 100 ml	NIL	Absent
33.	E. Coli / 100 ml	NIL	Absent

Analysis Protocol: IS 3025

ND: Not Detected

Checked By: Mr. Panikaj Baro



**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, Digboi Stores Building, 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/GSCL/NLM/FEB/20-21/01  
Date : 05/03/2021

Order No. : SOGM/00426/19-20  
Date : 09/03/2020

**GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old)  
P. O.- Khliehriat  
Meghalaya- 793200

**NOISE LEVEL MEASUREMENT RESULTS**

Sl. No.	Location(s)	Date Of Measurement	Day Time		Night Time	
			Leq (dB-A)	Limit (dB-A)	Leq (dB-A)	Limit (dB-A)
1	Near Guest House	19.02.2021	62.8	75	55.3	70
2	Near Residential Colony	20.02.2021	59.6	75	52.3	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, Digboi Stores Building, 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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

No: GSCL/EHS/2021-22/02

Dated: 14.04.2021

To,  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
Arden, Lumpynggad,  
Shillong-793014.

**Sub: Submission of Monthly Environmental Monitoring Reports - MARCH -2021**

Sir,


With reference to the subject as cited above, we are herewith submitting  
**Monthly Environmental Monitoring Reports** for the month of **MARCH-2021**.

The test reports are enclosed.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

  
Authorised Signatory



**End: Test Reports**

**Goldstone Cements Limited**

CIN No. : U26940ML2007PLC008298

**Corporate Office**

510, 5th Floor, Diamond Heritage,  
16, Strand Road, Kolkata - 700001  
P +91-33-66079604

**Factory Office**

Village Musiang Lamare(Old),  
Khliehriat, East Jaintia Hills,  
Meghalaya - 793200

**Sales & Marketing Office**

5A, 5th Floor, Shine Towers, 57 Sati Jaymati Road  
Arya Chowk, Rehabari, Guwahati, Assam 781008  
P +91-361-2607071/72



# GOLDSTONE CEMENTS LIMITED


CIN: U25940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

March – 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80µg/m <sup>3</sup>
Near CPP Water Reservoir	01.03.2021	29.9	49.3	14.7	9.9
Near CCR Material Yard	02.03.2021	33.5	52.1	10.7	8.3
Near Guest House (Yamuna Sadan)	03.03.2021	22.3	36.6	<5.0	<6.0
Residential Colony	04.03.2021	15.6	33.8	<5.0	<6.0

  
Analysed By



  
Verified By



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

March - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>
Near CPP Water Reservoir	08.03.2021	31.1	47.8	9.2	7.4
Near CCR Material Yard	11.03.2021	36.5	55.9	10.6	8.6
Near Guest House (Yamuna Sadan)	12.03.2021	18.1	38.5	<5.0	<6.0
Residential Colony	13.03.2021	14.3	34.8	<5.0	<6.0

Analysed By



Verified By

Report No.: ENV/GSCL/20-21/AA-03/01  
Date: 06/04/2021

Report Issued To: **GOLDSTONE CEMENTS LIMITED**  
Village: Mustiang Lamare (Old); PO: Kaliehrat, Meghalaya-793200

Order No.: SOGM/00426/19-20  
Date: 09/03/2020

**AMBIENT AIR QUALITY TEST RESULTS**

LOCATIONS ↓	Date of Sampling	PM 2.5 (ug/m <sup>3</sup> ) (24 hrs. Average)	PM 10 (ug/m <sup>3</sup> ) (24 hrs. Average)	SO <sub>2</sub> (ug/m <sup>3</sup> ) (24 hrs. Average)	NO <sub>x</sub> (ug/m <sup>3</sup> ) (24 hrs. Average)	NH <sub>3</sub> (ug/m <sup>3</sup> ) (24 hrs. Average)	CO (ug/m <sup>3</sup> ) (1 hr. Average)	O <sub>3</sub> (ug/m <sup>3</sup> ) (1 hr. Average)	R(a)P (ng/m <sup>3</sup> ) (Annual Average)	CaH <sub>2</sub> (ug /m <sup>3</sup> ) (Annual Average)	NI (ng/m <sup>3</sup> ) (Annual Average)	As (ng/m <sup>3</sup> ) (Annual Average)	Pb (ug/m <sup>3</sup> ) (24 hrs. Average)
<b>LIMITS →</b>	--	60	100	80	10	400	4.0	180	1.0	5.0	20	6.0	1.0
Near CPP (Water Reservoir)	22.03.2021	31.4	55.9	6.4	10.5	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near CCS (Material Yard)	22.03.2021	36.9	61.1	5.5	8.3	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Near Guest House (Yamzua Sadae)	23.03.2021	12.8	33.2	<5.0	<5.0	<5.0	0.023	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Residential Colony	23.03.2021	14.9	36.8	<5.0	<6.0	<5.0	0.051	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01



Checked By: 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.I. (AOD) New Market, Digboi - 786111, Assam.

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## AMBIENT AIR QUALITY MONITORING RESULTS

March - 2021

Stations Name	Date of Monitoring	Parameters Results			
		PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>
		Limit 60 µg/m <sup>3</sup>	Limit 100 µg/m <sup>3</sup>	Limit 80 µg/m <sup>3</sup>	Limit 80µg/m <sup>3</sup>
Near CPP Water Reservoir	26.03.2021	35.5	42.2	8.6	7.1
Near CCR Material Yard	27.03.2021	38.1	49.8	9.8	8.0
Near Guest House (Yamunā Sadan)	29.03.2021	No Sampling Due to Rain fall			
Residential Colony	30.03.2021	No Sampling Due to Rain fall			

  
Analysed By



  
Verified By





# POLLUTION AND PROJECT CONSULTANTS

ENVIRONMENTAL POLLUTION CONTROL - Air, Effluent, Pharmaceuticals & Chemical Project Engineers. EIA & Disaster Management Study

Page: 1 of 3

## TEST REPORT STACK GAS

Customer Name : M/s. Envirocon,	Report No. : G/21(02)/18
Address : Digboi Stores Building, New Market, Digboi - 786171, Assam	Report Date : 15.03.2021
Type of Sample : Stack Gas	Date of Sampling : 21.02.2021
Sampling Location : Raw Mill Kiln Stack, GOLDSTONE CEMENTS LIMITED	Sample Received Date : 28.02.2021
	Sample Id No. : G/21(02)/18
	Test Start Date : 28.02.2021
	Test End Date : 15.03.2021

<b>A: GENERAL INFORMATION ABOUT STACK</b>		<b>B: ANALYSIS/CHARACTERISTICS OF FUEL</b>	
1 STACK CONNECTED TO : Raw Mill Kiln	2 MATERIAL OF CONSTRUCTION : M.S	1 EMISSION DUE TO : Process activity	2 FUEL USED : Coal & Raw Material
3 SHAPE OF THE DUCT : Circular	4 HEIGHT OF THE STACK : a) From Ground Level (M) : 40 b) From Roof Level (M) : --	3 FUEL CONSUMPTION : 7 TPH	4 CALORIFIC VALUE (K-Cal/Kg) : --
5 DIAMETER OF THE STACK : a) Top (M) : -- b) Bottom (M) : -- c) Sampling Point (M) : 3.15	6 HEIGHT OF THE SAMPLING PORT : a) From Ground level (M) : 20 b) From Lower Disturbing Zone (M) : --	5 SULPHUR CONTENT (% by wt) : --	6 ASH CONTENT (% by wt) : --
7 WHETHER STACK IS PROVIDED WITH PERMANENT PLATFORM /LADDER : Permanent & Well		7 AIR FLOW : --	
		<b>C: CAPACITY</b>	
		a) RATED : 1700 TPD	b) RUNNING : 1700 TPD
		<b>Load</b>	
		a) RATED : --	b) RUNNING : --
		<b>E: POLLUTION CONTROL DEVICE : Bag Filter</b>	

<b>D: RESULT OF SAMPLING</b>				
Sl. No.	Parameter	Unit	Method of Test (Reference)	Result
1	Temperature of emission	deg C	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 183
2	Barometric Pressure	mmHg	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 748
3	Velocity of Gas Flow	m/Sec	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 16.4
4	Quantity of Gas Flow	Nm <sup>3</sup> /hr	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 296147.82
5	Concentration of Particulate Matter	mg/Nm <sup>3</sup>	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: 21
6	Particulate Matter Normalised to 12% CO <sub>2</sub>	mg/Nm <sup>3</sup>	IS:11255 (Part 1):1985 (RA2014) & (Part 3):2008	: --
7	Concentration of Sulphur Dioxide	mg/Nm <sup>3</sup>	IS:11255 (Part 2):1985 (RA 2014)	: 425
8	Concentration of Oxides of Nitrogen	mg/Nm <sup>3</sup>	IS:11255 (Part 7):2005 (RA 2017)	: 283
9	Concentration of Oxygen	% v/v	APHA (Air Analysis) (3 <sup>rd</sup> Edition) Method- 134	: 14.6
10	Concentration of Carbon Dioxide	% v/v	APHA (Air Analysis) (3 <sup>rd</sup> Edition) Method- 134	: 4.6
11	Concentration of Carbon Monoxide	% v/v	APHA (Air Analysis) (3 <sup>rd</sup> Edition) Method- 134	: <0.2

The results relate only to the parameters tested. ....end of report...



*Thirumala*  
Thirumala Chakrabarty  
Quality Manager  
Authorized Signatory  
For Pollution And Project Consultants

\*Test Certificate shall not be reproduced except in full, without written approval of the Chief Executive or Technical Manager.

LABORATORY FOR ANALYSIS OF AIR, WATER, EFFLUENT, SOIL, SLUDGE, SOLIDWASTE, COAL, ORE. ETC.

Office & Laboratory : P-145, Bangur Avenue, Block - A, Kolkata - 700 055

Phone : (033) 2574-3418 • E-mail : ppconsultants@awsppc.in • Web : www.awsppcenvirogroup.com





**POLLUTION AND PROJECT CONSULTANTS**  
ENVIRONMENTAL POLLUTION CONTROL - Air, Effluent, Pharmaceuticals  
& Chemical Project Engineers. EIA & Disaster Management Study

Page: 2 of 3

TEST REPORT  
STACK GAS

Customer Name	: M/s. Envirocon,	Report No.	: G/21/02/18
Address	: Digboi Stores Building, New Market, Digboi - 786171, Assam	Report Date	: 15.03.2021
Type of Sample	: Stack Gas	Date of Sampling	: 21.02.2021
Sampling Location	: Raw Mill Kiln Stack, GOLDSTONE CEMENTS LIMITED	Sample Received Date	: 28.02.2021
		Sample Id No.	: G/21/02/18
		Test Start Date	: 28.02.2021
		Test End Date	: 15.03.2021

**D: RESULT OF SAMPLING**

Sl. No.	Parameter	Unit	Method of Test (Reference)	Result
12	Hydrogen Chloride (HCL)	(mg/Nm <sup>3</sup> )	USEPA-9212	: < 1.50
13	Hydrogen Fluoride (HF)	(mg/Nm <sup>3</sup> )	USEPA-9214	: < 0.50
14	Mercury(as Hg)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.50
15	Cadmium(as Cd)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
16	Antimony(as Sb)	(mg/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.0003
17	Arsenic(as As)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.50
18	Lead(as Pb)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
19	Cobalt(as Co)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
20	Chromium(as Cr)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
21	Copper(as Cu)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
22	Manganese(as Mn)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
23	Nickel(as Ni)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
24	Vanadium(as V)	(ug/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 1.00
25	Thorium(Th)	(mg/Nm <sup>3</sup> )	USEPA-METHOD 29	: < 0.0003
26	Total Organic Carbon (TOC)	(mg/Nm <sup>3</sup> )	Approved method for the sampling, analysis of air pollutants NSWERA, 2007	: < 0.5

The results relate only to the parameters tested. ....end of report..



*Tanmoy Chakrabarty*  
Tanmoy Chakrabarty  
Quality Manager  
Authorized Signatory

For Pollution And Project Consultants

\*Test Certificate shall not be reproduced except in full, without written approval of the Chief Executive or Technical Manager.

LABORATORY FOR ANALYSIS OF AIR, WATER, EFFLUENT, SOIL, SLUDGE, SOLIDWASTE, COAL, ORE, ETC.

Office & Laboratory : P-145, Bangur Avenue, Block - A, Kolkata - 700 055

Phone : (033) 2574-3418 • E-mail : ppconsultants@awsppc.in • Web : www.awsppcenvirogroup.com



# POLLUTION AND PROJECT CONSULTANTS

ENVIRONMENTAL POLLUTION CONTROL - Air, Effluent, Pharmaceuticals & Chemical Project Engineers. EIA & Disaster Management Study

Page: 3 of 3

## TEST REPORT STACK GAS

Customer Name : M/s. Envirocon,		Report No. : G/21(02)/18
Address : Digboi Stores Building, New Market, Digboi - 786171, Assam		Report Date : 15.03.2021
Type of Sample : Stack Gas		Date of Sampling : 21.02.2021
Sampling Location : Raw Mill Kiln Stack, GOLDSTONE CEMENTS LIMITED		Sample Received Date : 28.02.2021
		Sample Id No. : G/21(02)/18
		Test Start Date : 28.02.2021
		Test End Date : 15.03.2021

Sl. No.	Parameter	Unit	Method of Test (Reference)	Result
<b>Pesticides</b>				
1	Total Furan	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.01
<b>Dioxin</b>				
1	1 2 3 4 6 7 8-Heptachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.00024
2	1 2 3 4 7 8-Hexachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
3	1 2 3 7 8 9-Hexachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
4	1 2 3 7 8-Pentachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.024
5	2 3 7 8-Tetrachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.005
6	1 2 3 6 7 8-Hexachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
7	Octachlorodibenzo-p-dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.00015
8	Total Dioxin	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.01
9	2 3 4 7 8-Pentachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0072
10	1 2 3 4 6 7 8-Heptachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.00024
11	1 2 3 4 7 8 9-Heptachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.00024
12	1 2 3 4 7 8-Hexachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
13	1 2 3 6 7 8-Hexachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
14	1 2 3 7 8 9-Hexachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
15	1 2 3 7 8-Pentachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
16	2 3 4 6 7 8-Hexachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.00072
17	2 3 7 8-Tetrachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.0024
18	Octachlorodibenzofuran	ng TEQ/Nm <sup>3</sup>	USEPA 23A/QA.16.4.73	<0.00015

The results relate only to the parameters tested.

...end of report...



*Thakurabary*  
Tanmoy Chakrabarty  
Quality Manager  
Authorized Signatory

For Pollution And Project Consultants

\*Test Certificate shall not be reproduced except in full, without written approval of the Chief Executive or Technical Manager.

LABORATORY FOR ANALYSIS OF AIR, WATER, EFFLUENT, SOIL, SLUDGE, SOLIDWASTE, COAL, ORE. ETC.

Office & Laboratory : P-145, Bangur Avenue, Block - A, Kolkata - 700 055

Phone : (033) 2574-3418 • E-mail : ppconsultants@awsppc.in • Web : www.awsppcenvirogroup.com

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

March - 2021

Name of Stack & Stack No.	:	Raw Mill & Kiln (1)	
Date of Monitoring	:	02.03.2021	
Stack Velocity of Flue gas	:	20.7 m/s	
Stack Temperature	:	448 °K	
Monitoring Period	:	38 m	
Flow Rate	:	26.1 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	18.8	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	484.1	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NO <sub>x</sub> )	279.2	600	(mg/Nm <sup>3</sup> )

  
Analysed By



  
Verified By



Report No.: ENV/GSCL/21-22/SE-03/05

Date : 06/04/2021

Order No.: SOGM/00426/19-20

Date : 19/09/2020

Report issued To: **GOLDSTONE CEMENTS LIMITED**

Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/20-21/SE-03/05		
02	Date of Sampling	23.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Raw Mill		
05	Flue Gas Temperature (°C)	179		
06	Exit Velocity of Gas (m/sec)	13.2		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	19	mg/Nm <sup>3</sup>	30
II.	Sulphur Dioxide (as SO <sub>2</sub> )	512	mg/Nm <sup>3</sup>	1000
III.	Oxides of Nitrogen (as NO <sub>x</sub> )	278	mg/Nm <sup>3</sup>	600

\*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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

March - 2021

Name of Stack & Stack No.	:	Coal Mill (2)	
Date of Monitoring	:	02.03.2021	
Stack Velocity of Flue gas	:	14.3 m/s	
Stack Temperature	:	331 °K	
Monitoring Period	:	41 m	
Flow Rate	:	24.4 LPM	
Parameters	Results	Standard Limits	Unit
Particulate Matter	16.5	30	(mg/Nm <sup>3</sup> )
Sulphur Dioxide(SO <sub>2</sub> )	237.9	1000	(mg/Nm <sup>3</sup> )
Nitrogen Oxide (NO <sub>x</sub> )	125.6	600	(mg/Nm <sup>3</sup> )

  
Analysed By



  
Verified By

Report No.: ENV/GSCL/21-22/SE-03/03  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report Issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/20-21/SE-03/03		
02	Date of Sampling	23.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	57		
06	Exit Velocity of Gas (m/sec)	11.2		
* 07	Type of Fuel Used	NA*		
<b>Analysis Results of Flue Gas</b>				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
I.	Particulate Matter	16	mg/Nm <sup>3</sup>	30
II.	Sulphur Dioxide (as SO <sub>2</sub> )	210	mg/Nm <sup>3</sup>	1000
III.	Oxides of Nitrogen (as NO <sub>x</sub> )	95	mg/Nm <sup>3</sup>	600

\*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.I. (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.

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

March - 2021

Name of Stack & Stack No.	:	Cooler ESP(3)		
Date of Monitoring	:	03.03.2021		
Stack Velocity of Flue gas	:	10.4 m/s		
Stack Temperature	:	502 °K		
Monitoring Period	:	38 m		
Flow Rate	:	26.5 LPM		
Parameters	Results	Standard Limits	Unit	
Particulate Matter	15.4	30	(mg/Nm <sup>3</sup> )	

  
Analysed By



  
Verified By

Report No.: ENV/GSCL/21-22/SE-03/02  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report issued To : **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.- Khlekhriat, Meghalaya- 793200

**STACK EMISSION TEST RESULTS**

01	Test Ref. No.	GSCL/20-21/SE-03/02		
02	Date of Sampling	22.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	218		
06	Exit Velocity of Gas (m/sec)	17.6		
07	Type of Fuel Used	NA*		
<b>Analysis Results of Flue Gas</b>				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
L	Particulate Matter	18	mg/Nm <sup>3</sup>	30

\*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.



# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STCK EMISSION MONITORING REPORT

March - 2021

Name of Stack & Stack No.	:	Cement Mill (4)	
Date of Monitoring	:	04.03.2021	
Stack Velocity of Flue gas	:	11.1 m/s	
Stack Temperature	:	334 °K	
Monitoring Period	:	53 m	
Flow Rate	:	18.9 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	17.0	30

  
Analysed By



  
Verified By

Report No.: ENV/GSCL/21-22/SE-03/01  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report Issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Mustang Lamare (Old), P. O.- Khlehriat, Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/20-21/SE-03/01		
02	Date of Sampling	22.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	56		
06	Exit Velocity of Gas (m/sec)	14.3		
07	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
1	Particulate Matter	12	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



Checked By: Mr. Panikaj 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.

# GOLDSTONE CEMENTS LIMITED

CIN: U26940ML2007PLC008298



## STACK EMISSION MONITORING REPORT

March - 2021

Name of Stack & Stack No.	:	CPP (5)	
Date of Monitoring	:	05.03.2021	
Stack Velocity of Flue gas	:	8.7 m/s	
Stack Temperature	:	378 °K	
Monitoring Period	:	34 m	
Flow Rate	:	29.5 LPM	
Parameters	Unit	Results	Standard Limits
Particulate Matter	(mg/Nm <sup>3</sup> )	32.5	50
Sulphur Dioxide (SO <sub>2</sub> )	(mg/Nm <sup>3</sup> )	508.7	600
Nitrogen Oxide (NOX)	(mg/Nm <sup>3</sup> )	223.3	300

  
Analysed By



  
Verified By

Report No.: ENV/GSCL/21-22/SE-03/04  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report Issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	GSCL/20-21/SE-03/04		
02	Date of Sampling	23.03.2021		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	85		
06	Exit Velocity of Gas (m/sec)	8.1		
07	Type of Fuel Used	Coal		
<b>Analysis Results of Flue Gas</b>				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	32	mg/Nm <sup>3</sup>	50
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	478	mg/Nm <sup>3</sup>	600
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	231	mg/Nm <sup>3</sup>	300
iv.	Mercury (as Hg)	0.022	mg/Nm <sup>3</sup>	0.03



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.I. (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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No.: ENV/GSCL/21-22/DW-03/01  
Date : 06/04/2021

Order No.: SOGM/00424/19-20  
Date : 19/09/2020

Report issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

### DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/20-21/DW-2303/01  
Collected On : 23-03-2021

Sample Source : Narmada Sarban  
Received On : 25-03-2021

Sample Type : Drinking Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max	1	5	15
2.	Odour	Odourless	Agreeable	Agreeable
3.	Taste	Acceptable	Agreeable	Agreeable
4.	Turbidity, NTU, Max	0.22	1	5
5.	pH	6.88	6.5 - 8.5	No Relaxation
6.	Total Dissolved Solids, mg/l, Max	98	500	2000
7.	Aluminium (as Al), mg/l, Max.	ND	0.03	0.2
8.	Boron (as B), mg/l, Max.	ND	0.5	1.0
9.	Calcium (as Ca), mg/l, Max	24	75	200
10.	Chloride (as Cl), mg/l, Max	66	250	1000
11.	Copper (as Cu), mg/l, Max	ND	0.05	1.5
12.	Fluorides (as F), mg/l, Max	ND	1.0	1.5
13.	Free Residual Chlorine, mg/l, Min	ND	0.2	1
14.	Iron (as Fe), mg/l, Max	0.013	0.3	No Relaxation
15.	Magnesium (as Mg), mg/l, Max	2.1	30	100
16.	Manganese (as Mn), mg/l, Max	ND	0.1	0.3
17.	Zinc (as Zn), mg/l, Max	ND	5.0	15
18.	Nitrate (as NO <sub>3</sub> ), mg/l, Max	0.62	45	No Relaxation
19.	Sulfate (as SO <sub>4</sub> ), mg/l, Max	ND	200	400
20.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max.	ND	0.001	0.002
				--Continued--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025  
ND: Not Detected



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/CSCL/21-22/DW-03/01  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report Issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

### DRINKING WATER ANALYSIS RESULTS

Sample Ref. No. : CSCL/20-21/DW-2303/01  
Collected On : 23-03-2021

Sample Source : Narmada Sadhan  
Received On : 25-03-2021

Sample Type : Drinking Water  
Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* In the Absence of Alternate Source
21.	Total Alkalinity(as CaCO <sub>3</sub> ) , mg/l, Max	62	200	600
22.	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	11	200	600
23.	Cadmium (as Cd), mg/l, Max.	ND	0.003	No Relaxation
24.	Cyanide (as CN), mg/l, Max.	ND	0.05	No Relaxation
25.	Lead (as Pb), mg/l, Max.	ND	0.01	No Relaxation
26.	Mercury (as Hg), mg/l, Max.	ND	0.001	No Relaxation
27.	Selenium (as Se), mg/l, Max.	ND	0.01	No Relaxation
28.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
29.	Anionic Detergents (as MBAS), mg/l	ND	0.2	1.0
30.	Total Arsenic (as As), mg/l, Max	ND	0.01	0.05
31.	Total Chromium, (as Cr), mg/l, Max	ND	0.05	No Relaxation
32.	Faecal Coliforms/ 100 ml	NIL	Absent	Absent
33.	E. Coli / 100 ml	NIL	Absent	Absent
				--End of Report--

\*Limits as per IS 10500:2012

Analysis Protocol: IS 3025  
ND: Not Detected

Remarks: Drinking water from the above source is fit for drinking.



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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/WW-03/01  
Date : 06/04/2021

Order No.: SOGM/06426/19-20  
Date : 19/09/2020

Report Issued To : **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

### WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/20-21/WW-2303/01  
Sample Type/Source : Waste Water (Treated)/ETP Outlet  
Sample Collected By : Representative of ENVIROCON  
Sample Collected On : 23.03.2021  
Sample Received On : 25.03.2021  
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.66	5.5 - 9.0
2.	Temperature	°C	25.9	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	21	100
4.	Biochemical Oxygen Demand	mg/l	23	30
5.	Chemical Oxygen Demand	mg/l	103	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	2.2	50
9.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	8.6	100
10.	Free Ammonia (as NH <sub>3</sub> )	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.I. (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/GSCL/21-22/WW-03/03  
Date : 06/04/2021

Order No.: SOCM/00426/19-20  
Date : 19/09/2020

Report issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.: Khilehriat, Meghalaya- 793200

### WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/20-21/WW-2303/03  
Sample Type/Source : Waste Water/Boiler Blow Down  
Sample Collected By : Representative of ENVIROCON  
Sample Collected On : 23.03.2021  
Sample Received On : 25.03.2021  
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	Total Suspended Solids	mg/l	14	100
2.	Oil & Grease	mg/l	<4.0	20
3.	Copper (as Cu)	mg/l	<0.01	1.0
4.	Iron (as Fe)	mg/l	<0.01	1.0



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/GSCL/21-22/N-03/01

Date : 06/04/2021

Order No.: SOGM/06426/19-20

Date : 19/09/2020

Report issued To : **GOLDSTONE CEMENTS LIMITED**

Village- Muslang Lamare (Old), P. O.- Khliehriat, Meghalaya- 793200

**NOISE LEVEL MEASUREMENT RESULTS**

Sl. No.	Location(s)	Date Of Measurement	Day time		Night Time	
			Leq (dB-A)	Limit (dB-A)	Leq (dB-A)	Limit (dB-A)
1	Near Coal Mill	22.03.2021	67.6	75	62.4	70
2	Near CPP Area	22.03.2021	62.0	75	56.9	70
3	Near Coal Storage Yard	22.03.2021	59.2	75	55.3	70
4	Near Raw Mill	22.03.2021	69.4	75	64.3	70
5	Near Cement Mill	23.03.2021	68.4	75	62.5	70
6	HR & Mine's Office	23.03.2021	61.5	75	55.9	70
7	CPP TG Building	23.03.2021	70.4	75	63.4	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.

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

Report No.: ENV/GSCL/21-22/FE-03/01  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report Issued To: **GOLDSTONE CEMENTS LIMITED**  
Village- Musiang Lamare (Old), P. O.-: Khliehriat, Meghalaya- 793200

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Sl. No.	Locations	Date of Sampling	Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
01	Fly-ash Storage Section	22.03.2021	791	5000
02	Coal Storage Section	22.03.2021	652	2000
03	Limestone Storage Section	23.03.2021	1806	5000
04	Cement Packing Section	23.03.2021	2115	5000

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

1. Results reported are valid at the time 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/GSCL/21-22/WW-03/04  
 Date : 06/04/2021

Order No.: SOGM/00426/19-20  
 Date : 19/09/2020

Report issued To : **GOLDSTONE CEMENTS LIMITED**  
 Village- Musiang Lamare (Old), P.O.- Khliehriat, Meghalaya- 793200

**WASTE WATER ANALYSIS RESULTS**

Sample Ref. No. : GSCL/20-21/WW-2303/03  
 Sample Type/Source : Waste Water/Cooling Tower Blow Down  
 Sample Collected By : Representative of ENVIROCON  
 Sample Collected On : 23.03.2021  
 Sample Received On : 25.03.2021  
 Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	Residual Free Chlorine	mg/l	<0.01	0.5
2.	Zinc	mg/l	<0.01	1.0
3.	Total Chromium	mg/l	<0.01	0.2
4.	Phosphate	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, L.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 (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Report No.: ENV/GSCL/21-22/WW-03/02  
Date : 06/04/2021

Order No.: SOGM/00426/19-20  
Date : 19/09/2020

Report issued To : **GOLDSTONE CEMENTS LIMITED**  
Village- Muslang Lamare (Old), P. O.:- Khliehriat, Meghalaya- 793200

### WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : GSCL/20-21/WW-2303/02  
Sample Type/Source : Waste Water (Service Water)/Condenser Cooling Point  
Sample Collected By : Representative of ENVIROCON  
Sample Collected On : 23.03.2021  
Sample Received On : 25.03.2021  
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	-	6.36	5.5 - 9.0
2.	Temperature	°C	26.2	shall not exceed 5°C above the receiving water temperature
3.	Residual Free Chlorine	mg/l	<0.01	0.5



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.



# **Annexure – 2**

## **Construction of Concrete Roads**



Coronavirus: What you need to do

Wash your hands  
Wear a face covering  
Keep your distance



# Annexure – 2a,2b,2c,2d

# Water Sprinkling













**FIRE TENDER**  
**GOLDSTONE CEMENTS LTD.**

FIRE TENDER GOLDSTONE CEMENTS LTD.



# **Annexure – 3**

## **PUC Certificates**

Approved by  
Transport  
Deptt. Govt.  
of Jammu  
&  
Kashmir

KEEP THE PIECE OF HEAVEN FREE FROM POLLUTION  
**POLLUTION UNDER CONTROL CERTIFICATE**  
**ROYAL POLLUTION CHECKING CENTRE**

**NANAK BHAWAN ROAD, NEAR SHERWANI HALL, BARAMULLA KASHMIR**

**AUTHORIZATION CODE = 101**

**Advice :- Recheck after every three months**

Certified that this Vehicle's emission level conforms to the standards prescribed under rule 115 (2) of CMV Rules, 1989

I.D. No. : 10100002348

Vehicle No. : JK05E 5334

Date of Reg. : 9-10-2015

Vehicle Type : TRUCK

Make : TATA

Model : 2518

Fuel : Pre Bharat Stage IV

Date : DIESEL

Time : 30-12-2020

Validity : 04 18 PM

Authorized Sig. : 29-6-2021



FLUSH		CYCLE					
Avg	RPM	Min	RPM	Max	Temp		
	530		1820		60		
Sr No	RPM	Min	RPM	Max	HSUE %	K Value	O Temp
1	530		1810		32.18	00.90	60
2	550		1770		32.88	00.93	63
3	540		1820		30.80	00.86	61
<b>MEAN</b>					<b>PASS</b>	<b>31.95</b>	<b>00.90</b>

Photo of Vehicle





**POLLUTION UNDER CONTROL CERTIFICATE**  
Authorised By: Uttar Dinajpur RTO  
Transport Commissionerate, West Bengal



**TEST RESULT : PASS**  
**VALID TILL: 19/Jun/2021**

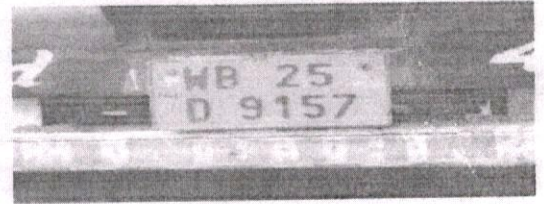
Certificate Sl. No.: WB05900370005489  
Registration No.: **WB25D9157**  
Chassis No.: MAT466383B2B04296  
Engine No.: 11B62996721  
Class of Vehicle: Goods Carrier  
Make: TATA MOTORS LTD  
Model: LPT3118TCE III  
Vehicle Category: HEAVY GOODS  
VEHICLE  
Date of Registration: 11/Apr/2011  
Emission Norms: EURO 3  
Fuel: DIESEL  
Date of Testing: 20/Dec/2020

**DIESEL DRIVEN VEHICLES**  
Certified that the vehicle conforms to the standards prescribed under rule 115(2) of CMV Rules 1989

FUEL	Light Absorption Coefficient (Permissible Limit)	Measured Value
DIESEL	2.45	0.12867

Time of Testing: 07:09:52  
Fee Charged: Rs.100.0  
Fee Charged: (one hundred rupees only)

Auto Emission Testing Centre Code: WB0590037  
Testing Centre Name: M/S RAIGANJ  
AUTO EMISSION TESTING & SERVICING  
CENTRE  
Centre Address: PURBA ASHOK PALLY,  
RAIGANJ,UTTAR DINAJPUR,733134  
Test Conducted By: RAKESH  
CHAKRABORTY



In case of any complain Please write to Transport  
Commissioner, West Bengal / email to:  
transportdeptl.wb@gmail.com

**TEST RESULT FOR DIESEL VEHICLE**

	IDLE RPM	MAX RPM	K VALUE	OIL TEMP
TEST 1	530.0	1720.0	0.135	27.0
TEST 2	550.0	1970.0	0.135	27.0
TEST 3	520.0	2060.0	0.116	27.0
AVG	533.33334	1916.66667	0.12867	27.0

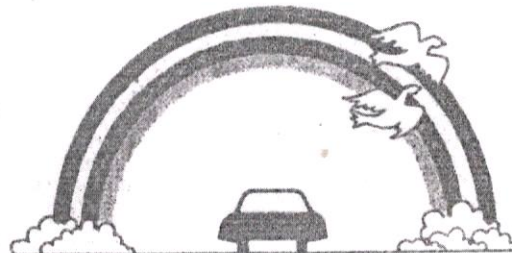
This is a computer generated certificate and does not require signature

**बाल बग**

**M/S RAIGANJ AUTO EMISSION TESTING & SERVICING CENTRE**

NH-34, PURBA ASHOKPALLY, UTTAR DINAJPUR, W.B. MOB NO.-9434120560

**REDUCE  
POLLUTION  
AND  
SAVE NATION**





### POLLUTION UNDER CONTROL CERTIFICATE

Authorised By: KAMRUP(RURAL)  
Transport Commissionerate, Assam



**TEST RESULT : PASS**  
**VALID TILL: 27/Aug/2021**

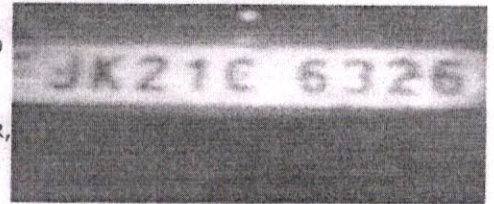
Certificate SI. No.: AS02500370000165  
 Registration No.: **JK21C6326**  
 Owner Name: KULDEEP GUPTA  
 Chassis No.: MAT466429GHF09805  
 Engine No.: S03082461F84316200  
 Class of Vehicle: Goods Carrier  
 Make: TATA MOTORS LTD  
 Model: 28469456000R  
 Vehicle Category: HEAVY GOODS  
 VEHICLE  
 Date of Registration: 09/Sep/2016  
 Emission Norms: BHARAT STAGE IV  
 Fuel: DIESEL  
 Date of Testing: 28/Aug/2020

**DIESEL DRIVEN VEHICLES**  
Certified that the vehicle conforms to the standards prescribed under rule 115(2) of CMV Rules 1989

FUEL	Light Absorption Coefficient (Permissible Limit)	Measured Value
DIESEL	1.62	0.54334

Time of Testing: 10:36:37  
 Govt Fees: 40.0  
 Center Fees: 90.0  
 Fee Charged: Rs.130.0  
 Fee Charged: (one hundred thirty rupees only)

Auto Emission Testing Centre Code: AS0250037  
 Testing Centre Name: TRINAYAN AUTO EMISSION TESTING STATION  
 Centre Address: BIJOYNAGAR, DIST. KAMRUP(RURAL), ASSAM, BIJOYNAGAR, KAMRUP(RURAL), ASSAM, 781122  
 Test Conducted By: MR. JAGADISH DEKA



In case of any complain Please write to Transport Commissioner Assam

#### TEST RESULT FOR DIESEL VEHICLE

	IDLE RPM	MAX RPM	K_VALUE	OIL TEMP
TEST 1	770.0	2290.0	0.5	0.0
TEST 2	770.0	2370.0	0.55	2.0
TEST 3	800.0	2150.0	0.58	0.0
AVG	780.0	2270.0	0.54334	0.66667

This is a computer generated certificate and does not require signature



# **Annexure – 4**

## **Water Reservoir**

**GOLDSTONE CEMENTS LIMITED**  
MEGHALAYA  
**STREAM**  
**WATER RESERVOIR**  
CAPACITY- 1.0 Lac Litters



# **Annexure – 5**

## **Greenbelt Development**







# **Annexure – 6**

## **Environmental Parameters Display**

# ENVIRONMENTAL DATA INFORMATION RELATED TO AIR, WATER AND HW GENERATION



- Name of the industry/facility with contact details : GOLDSTONE CEMENTS LIMITED, Vill- Musiang Lamare (Old) Khilehriat, East Jaintia Hills, Meghalaya-793210  
(as per the Consent to Establish/Operate) Mr. Vishal Jain, (MO) 0361-2607071/72
- Date of update of display : 10.04.2021
- Consent to Operate and Authorization : No.MPCB/CON-13-2011/Pt-1/2020-2021/88, Validity-30.06.2021
- Hazardous waste Authorization : No.MPCB/ATH-45-2017/Pt-1/2018-2019/3, Validity-31.07.2023
- Operational status : Operational  / Non-Operational
- Production Details :

S.No.	Product Manufactured (including Recycling /Utilization)	Used Hazardous Chemicals with quantity and purpose	Type of HW generated (MT/KL) with category as per HW Rules-2016 Year - (2019-2020)				QTY of HW generated storage (MT/KL)		QTY of HW Disposed/Utilized Inhouse (MT/KL)		Mode of treatment and disposal (Co-processing, /filling/reuse/incinerator etc.)
			Used Oil	Fly Ash	Sludge	Chemical Container	MT	KL	MT	KL	
1	Cement, Clinker & Power	NA	Used Oil	0.44 KL	0.00	0.00	0.44	0.00	0.00	0.00	Co-processing incinerator Utilizing
2			Tarball Oil	0.00 KL	0.00	0.00	0.00	0.00	0.00	0.00	
3			Gear Oil	0.00 KL	0.00	0.00	0.00	0.00	0.00	0.00	
4											

## 7. Air Emission :

S.No.	Source of Air Pollution	Air Pollution Control System (APCS)		Parameters Monitored w.r.t. Air Pollution**			Limits/Standard prescribed by SPCB/CPCB (mg/Nm <sup>3</sup> )
		System	Stack Height (in meter)	PM (mg/Nm <sup>3</sup> )	SO <sub>2</sub> (mg/Nm <sup>3</sup> )	NO <sub>x</sub> (mg/Nm <sup>3</sup> )	
1	Raw Mill & RHN	Baghouse	40.0	18	512	278	PM-30, SO <sub>2</sub> -1000 NO <sub>x</sub> -600
2	Coal Mill	Baghouse	58.1	16	632	324	
3	Cooler ESP	ESP	45.0	18	...	...	
4	Cement Mill	Baghouse	42.0	12	...	...	PM-50, SO <sub>2</sub> -600, NO <sub>x</sub> -300
5	CPP	ESP	76.1	32	478	231	

\*\*OCEMS Connectivity details (Date of installation: 14/09/2017 and Operational Status: Operational  / Non-Operational)

## 8. Effluent Discharge :

S.No.	Source of Effluent discharge with Qty.	Treatment method	Mode of Disposal of treatment (Drain/sewer/land etc)		Effluents discharge monitoring parameters						
			Drain	Land	pH	TSS	BOD	COD	N	TKN	NH <sub>3</sub>
1	Domestic effluent	20 M <sup>3</sup> /day EPT	Dust suppression & gardening	Out let (mg/l)	6.8	21	25	100	22	0.4	<0.01
2	DM Plant Effluent	36 m <sup>3</sup> /day	Dust suppression & gardening	Out let (mg/l)	6.05	14	<0.01	26.2	14.0	<0.01	Iron

\*\*OCEMS Connectivity details (Date of installation and operational status): NA

Stack 1 Flour Mill	PM	16.37	արդիւն
Stack 7 Fuel Mill	PM	20.97	արդիւն
Stack 3 Cement Mill	PM	22.63	արդիւն
Stack 6 Cement Mill	PM	14.69	արդիւն
Stack 5 CP	PM	76.6	արդիւն
Stack 4 CP	PM	161.66	արդիւն
Stack 3 CP	PM	583.75	արդիւն
Stack 2 Flour Mill	PM	107.7	արդիւն
Stack 1 Flour Mill	PM	202.06	արդիւն