

Dalmia cement

FUTURE TODAY

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DCBL/YKLM/MoEF/EC-HYC/2023-24/ 278

Date: 04.12.2023

To,

The Regional Director
Ministry of Environment, Forest & Climate Change
Regional Office (South Zone),
Kendriya Sadan, 4th Floor,
E & F wing, 17th Main Road,
II Block, Koramangala,
Bengaluru – 560034.

Dear Sir,

Sub: Submission of DCBL Half Year Compliance Report of Yadwad and Kunnal Limestone Mine – Reg.

Ref: F.No.J-11015/36/2009 - IA II (M) Dated. 13th March 2015.

With Reference to the above, we are here with attached Half Year Environment Clearance compliance reports of M/s. Dalmia Cement (Bharat) Limited (Yadwad and Kunnal Limestone Mine), Yadwad villages, Mudalagi Taluk, Belgaum district, Karnataka, for the period of for the period of April 2023 to September 2023.

Kindly request to acknowledge the same.

Yours faithfully

For M/s. Dalmia Cement (Bharat) Limited



Authorised Signatory

- Cc:** 1. The Environmental Officer, Karnataka State Pollution Control Board, Plot No.3224/3, Hanuman Nivas, First Floor, B.K. Collage Road, Chikkodi-591201.
2. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavana, 1st to 5th Floor, #49, Chruch street, Bengaluru-560001.
3. Regional Officer, Central Pollution Control Board, Nisarga Bhavan, Thimmaiah Road, 7th D Main Rd, Shivanagar, Bengaluru, Karnataka - 560079.

Dalmia Cement (Bharat) Limited

RS No. 394, Yadwad (Village), Mudalagi (Taluk), Belagavi (District), Karnataka - 591136, India.

T 9606014495 / 96 / 97 / 98 W www.dalmiacement.com CIN : U65191TN1996PLC035963

Registered office : Dalimapuram, Dist. Tiruchirapalli - 621 651, Tamil Nadu, India.

A Dalmia Bharat Group company, www.dalmiabharat.com

Half Yearly Compliance Report

On
Environmental Clearance
Of
Yadwad and Kunnal Lime Stone Mines

April, 2023 to September, 2023



Dalmia Cement (Bharat) Limited

(An ISO 14001, 18001 & 9001 Certified Company)

Yadwad village ,
Mudalagi Taluk,
Belagavi District ,
Karnataka, - 591136

s

Production Capacity:
Limestone : 4.30 MTPA



PROJECT PROFILE

1	Project type	IA-II (M) – Captive Lime Stone Mining
2	Name of the project	Yadwad Lime stone Mines of M/s Dalmia Cement (Bharat) Ltd, Yadwad and Kunnal Village, Mudalagi Taluk, Belagavi District, Karnataka
3	Clearance letter No.& date	MoEF&CC. EC: F. No. J-11015/36/2009-IA II(M), Dated: 13 th March 2015.
4	Location: District & State / UT	Yadwad and Kunnal Village, Mudalagi Taluk, Belagavi District, Karnataka 591136
5	Address for correspondence:	M/s Dalmia Cement (Bharat) Limited, RS No. 394, Yadwad Village, Mudalagi Taluk, Belagavi District, Karnataka -591136 Phone: +918334 4292271 Fax No: +91 40 - 30006955 Web: www.dalmiacement.com
6.	Status:	In Operation
a.	Date of commencement	11 th Jan 2017
b.	Date of site visit of Director-MOEF&CC/CPCB Officials	CPCB official visit: 12 th and 13 th February 2019
S. No	Conditions	Compliance Status
A.	Specific Conditions	
i.	The EC valid only for 1223.78 ha of land out of 1228.63 ha, subject to final outcome in all the Writ Petitions in the Karnataka High Court.	Lease granted area is 798.01 Ha. Final outcome of all the writ petitions from Karnataka high court is still awaited
ii.	The PP to provide unhindered access to the other lease holder(s) and farmers to their land in the lease area.	Access to farmers having land in lease area is provided.
iii.	The project proponent shall obtain Consent to Establish and Consent to Operate from the Karnataka State Pollution Control Board and effectively implement all the conditions stipulated therein.	Consent to Establishment vide order no. <u>PCB/MIN/CFE/2015-16/296</u> and Combined Consent for Operation vide order number <u>AW-326556 Dt.03.09.2021</u> obtained from Karnataka State Pollution Control Board and conditions are being effectively implemented.
iv.	The mining operations shall be restricted to above ground water table and it should not intersect the groundwater table.	Present mining operation is well above the ground water table

v.	To avoid adverse impact of mining operations on habitations/villages, the Project shall comply with conditions provided in OM no. Z-11013/57/2014- IA. II (M) dated 29.10.2014 on Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area.	There are no habitations/ village near to the present mine work and hence there is no adverse impact on habitations/ villages due to mining operation. However, conditions are being complied.
vi	The loose solids should be kept separately from flowing water and flow of effluents to nearby areas outside the leasehold shall be prevented. The paved drains along with arrangements for Over Burden Dumps and their drainage may be clearly depicted on a contoured map of the mining area.	Overburden dump is being maintained separately and protected from soil erosion by garland drains and retaining wall. There is no flow of water / effluents outside from the lease area
vii	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Adequate measures shall be taken for conservation and protection of the 1 st and 2 nd order streams, emanating or passing through the mine lease during the course of mining operation.	There is no water course inside the lease block boundaries.
viii	The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	Topsoil is being stacked separately in the earmarked area as per mining plan. The same shall be utilized as per proposed reclamation plan and also being utilized for plantation.
ix	Appropriate safeguard measures shall be taken to ensure stability and drainage of dump so that no solid waste/debris flows into the nallah.	Garland drain and retaining wall constructed around waste dump to prevent solid waste /debris flow. Few photographs are attached herewith as Annexure - 1

x.	<p>The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and their phase-wise stabilization shall be carried out. Proper terracing of OB dump(s) shall be carried out. The over burden dump(s) shall be scientifically Vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dumps. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Bangalore on six monthly basis.</p>	<p>Over burden is being stacked separately in the designated area and stabilization of the same shall be taken up as per the approved mining plan. The quantity of over burden generated during April-23 to September -23 is <u> </u> zero MT.</p>
xi.	<p>Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, temporary OB and mineral dumps to arrest flow of silt and sediment directly into the adjoining River and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly.</p>	<p>Catch drains are connected to siltation pond at working pit. Water is being utilized for dust suppression on haul roads and green belt development. No water is allowed to flow outside the lease area to river and other water bodies. Photographs of catch drains and siltation pond are enclosed as Annexure - 2</p>
xii.	<p>Dimension of the retaining wall at the toe of the OB dump(s) and the OB benches within the mine to check run-off and siltation should be based on the rain fall data.</p>	<p>Retaining wall constructed as per the approved mining plan wherein the rain fall data is considered.</p>
Xiii	<p>Plantation shall be raised in a specified area including a 7.5 m wide green belt in the safety zone around the mining lease, OB dump(s), along the roads, etc. by planting the native species in consultation with the local DFO/Agriculture Department. In addition, plantation shall also be raised in the backfilled and reclaimed area and around water body. The density of the trees should be around 1500 plants per ha.</p>	<p>Plantation proposed in phased manner covering safety zone of 7.5 m and other proved non-mineralised area. Plantation is being carried as per proposal with local species suggested by forest department. Nurturing and watering of the plantation made is being carried out on continuous basis to sustain the survival rate of the green belt and photographs of plantation are enclosed as Annexure 3.</p> <p>Total no. of Plantation done in FY 2022-23 is 2900 and area Covered is 2.5 hectare with Survival rate of 81.28%.</p>

xiv.	<p>Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.</p>	<p>Water sprinklers have been installed all along the main haul road which are prone to dust emissions and two water tankers of 10KL capacity has been dedicated for suppressing fugitive dust emissions at source points. Ambient air quality is continuously monitored and maintained as per CPCB norms.</p> <p>Photographs of water sprinkling system for haul road are enclosed as Annexure - 4</p> <p>The ambient air quality data is enclosed as Annexure -5</p>
xv.	<p>Regular monitoring of water quality upstream and downstream of perennial nallahs falling in the impact zone shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment, Forest and Climate Change, its Regional Office, Bangalore, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.</p>	<p>There is no perennial nallah falling in the impact zone.</p>
xvi.	<p>Appropriate measures shall be taken for treatment of the upper catchment of the mine lease area.</p>	<p>Rain water harvesting pond of 40000m³ along with channels is developed in a strategic location to collect the maximum rain water during monsoon.</p>
xvii	<p>The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.</p>	<p>Rain water harvesting pond in mine shall act as natural recharge point for enhancing the ground water table. In addition to this we have constructed about 40000 KL and 1.5 Lac KL capacity rain water harvesting pond developed with catch drains to collect all the surface runoff during monsoon and to conserve the water.</p> <p>Photographs of rain water harvesting pond are enclosed as Annexure 6</p>

<p>xvii i.</p>	<p>Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring (at least four times in a year- pre-monsoon [(April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season]) shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment, Forest and Climate Change and its Regional Office Bangalore, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.</p>	<p>Ground water level and quality is being monitored regularly in both core zone and buffer zone of the mining lease area. There is no effect of ground water table and water quality with the present mining activity. The report on Ground water level and quality is enclosed as Annexure 7</p>
<p>xix.</p>	<p>The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water, required for the project.</p>	<p>Agreed. We are utilizing only rain water Harvesting Water to meet the requirement mines.</p>
<p>xx.</p>	<p>Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.</p>	<p>Rain water harvesting with catch drains developed in strategic location inside the mines to collect all the possible water during monsoon.</p>
<p>xxi.</p>	<p>Appropriate mitigative measures should be taken to prevent pollution of nearby River in consultation with the State Pollution Control Board.</p>	<p>All preventive measures taken and no water from mine lease will flow in to the river</p>
<p>xxii</p>	<p>Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.</p>	<p>Emission from Vehicle are being maintained as per norms. All preventive maintenance jobs are carried out as per schedule. No dumper is overloaded with mineral (Lime stone). Roads are maintained and kept wet to avoid/ reduce fugitive emissions.</p>

xxii i.	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	State of art (NONEL) technology being practised for Controlling ground vibrations and to arrest fly rocks & boulders and the vibration level of each blast is being monitored and recorded. A Sample of ground vibration monitoring report is attached as Annexure - 9
xxi v.	Drills shall either be operated with dust extractors or equipped with water injection system.	We are using state of art drill machine which is equipped with in built dust collectors and equipped with water injection system for wet drilling.
xxv .	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Fugitive dust generation is being controlled in mineral handling areas by dedicated water tankers whereas, the lime stone crusher is equipped with bag filter and transfer towers are provided with water sprinkling system. The report on fugitive emission at mines is enclosed as Annexure 10
xxv i.	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and waste water generated during the mining operation.	Sewage Treatment Plant of capacity 215 KL/day is installed at colony. Workshop water is treated in Effluent Treatment Plant
xxv ii.	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	<ul style="list-style-type: none"> • Pre-placement medical examination conducted for the workers employed and same will be done for future employment. • Schedule for periodical health examination is prepared and being implemented.
xxv iii.	Regular monitoring of free silica in the dust will be carried out and records maintained. It shall be ensured that the levels of silica do not exceed the prescribed limit. The workers will be provided with personal protective measures to guard against in hailing silica dust.	Regular monitoring of free silica in the dust is being monitored. The level of silica is under prescribed limit. Attached as Annexure-8

xxi x.	Provision shall be made for the housing of 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Being mining operation no major construction activities are involved. All the workmen residing in village Yadwad, Mudhol and also being complied.
xxx	The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered flora as well as endangered fauna in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office at Bangalore within 3 months.	No endangered flora and fauna was identified in the study area of 10 km from the project site. Hence it doesn't require any action. Copies of the Baseline study conducted for preparation of EIA /EMP are submitted to Ministry and its regional Office.

xxx i.	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM10) and NOx in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-11A.11(M) dated 27.05.2009 issued by Ministry of Environment; Forest and Climate Change, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	Ambient Air quality is being monitored periodically in both core and buffer zone areas. Peak particle velocity is monitored at 300 m distance. The discharged water quality is also monitored on regular basis. The reports on PM10, NOx etc, (Annexure 5), peak particle velocity (Annexure 9) and discharged water quality are enclosed as Annexure 11
xxx ii.	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.	Noted and shall be complied.
xxx iii.	The project proponent shall undertake all the commitments made during the public hearing and effectively address the concerns raised by the locals in the public hearing as well as during consideration of the project, while implementing the project.	Commitments towards welfare of the local community are being carried out by adopting villages and providing ODF facility and many other CSR activities like clean water, water reservoir, check dam and drip irrigation etc.
B	GENERAL CONDITIONS	
i.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.	Mining is being carried out as per proposal.
ii.	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	Mining and excavation are as per approved Mine plan.

iii.	<p>Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.</p>	<p>Regular monitoring is being carried out at 4 core zone areas as well as 4 buffer zone areas.</p> <p>Report on Ambient Air Quality is enclosed as Annexure 5</p>
iv.	<p>Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM10) & NOx should be regularly submitted to the Ministry of Environment, Forest and Climate Change including its Regional office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.</p>	<p>Monitoring data of Ambient Air Quality and RSPM are submitted to the board on six-month basis.</p>
v.	<p>Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.</p>	<p>Water sprinkling is being carried out with two nos. dedicated 10 KL water tanker on all the source of emissions. Drilling is done by adopting wet drilling technology, water sprinkling system is installed for haul road and unloading point as well as transfer points.</p>
vi	<p>Measures should be taken for control of noise levels below 85dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.</p>	<p>All workmen employed were provided with PPE's including ear plugs and muffs. Noise level is also being monitored on regular interval.</p> <p>Report on Noise levels is enclosed as Annexure 12</p>
vii	<p>Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 315' December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.</p>	<p>No industrial water is being generated at present working. However, workshop water is treated in ETP and treated water meets GSR 422 E standard.</p> <p>Report on treated water is enclosed as Annexure 11</p>

viii	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	<ul style="list-style-type: none"> • Use of PPE is mandatory in mine working • Adequate training is being provided on safety and health at our mine vocational training centre. • Occupational health surveillance programs are conducted periodically.
ix.	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Environment Management cell established with qualified Environmental Officer.
x.	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment, Forest and Climate Change and its Regional Office located at Bangalore.	Funds separately allocated & maintained for Environment protection measures. Annual expenditure shall be provided in Environmental Statement.
xi.	The project authorities should inform the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Noted. Will be informed.
xii	The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	All compliance data and reports shall be made available to the Regional office at any time.

xiii	<p>The project proponent shall submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment, Forest and Climate Change, its Regional Office Bangalore, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the Environmental 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 Ministry of Environment, Forest and Climate Change, Bangalore, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.</p>	<p>Being Complied with six monthly reports on EC conditions to Regional office - MOEF&CC and also uploaded to our company web site</p>
xiv	<p>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ 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>Complied.</p>
xv.	<p>The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.</p>	<p>Complied.</p>

xvi.	The environmental statement for each financial year ending 31st 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 be put on the website of the company along with the status of compliance of Environmental Clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment, Forest and Climate Change, Bangalore by e-mail.	Form - V is submitted to the Board in time i.e, before 31 st Sep 2023
xvii	The project authorities should advertise at least in two local newspapers of the District or State widely circulated in which the project is located and one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded Environmental Clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bangalore.	Advertised in “ The New Indian Express ” and “ Udayavani ” (vernacular language)” on 21 st March 2015. A copy of the same forwarded to the regional office of this ministry located at Bangalore.



Authorized Signatory

Annexure 1 &2: Garland drain, retaining wall, Catch drain and Siltation Pond , Dump Yard



[Handwritten Signature]
Dalmia Cement (Bharat) Ltd.
YADWAD
591 136
Karnataka
Tq: Mudalagi Dt: Bellary

Dalmia Cement (Bharat) Limited, Yadwad, Belagavi District												
GREEN BELT DEVELOPMENT REPORT- 2013-2023												
Sr. No	Unit	Year										Total Plantation
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	
CEMENT PLANT												
1	No. of Trees Planted	1802	11981	48835	16415	7437	44874	11717	1500	0	5000	149561
2	Area Covered (Ha)	0.7208	4.7924	19.534	6.566	2.9748	17.9496	4.6868	0.5	0	2.5	60.22
3	Survival Rate (%)	89	91	91	93	94	94	96	95	0	96	93.22
MINES												
1	No. of Trees Planted				230	4484	8066	1884	2500	2800	2900	22864
2	Area Covered (Ha)				0.85	16.04	22.07	0.75	2	2.5	2.5	46.71
3	Survival Rate (%)				91	93	93	95	95	95	95	93.85
TOTAL PLANTATION											172425	
TOTAL AREA COVERED UNDER GREEN BELT(CEMENT PLANT +MINES) (Ha)											106.93	
33% AREA REQUIRED UNDER GREEN BELT (Ha) - CEMENT PLANT											39.6	
% AREA COVERED UNDER GREEN BELT (CEMENT PLANT)											50.18	





[Handwritten Signature]
ADWAD
591 136
Karnataka
Dalagi Di:Belagavi



LIMESTONE MINING PIT



[Handwritten Signature]
YADWAD
591 136
Karnataka
Mudalagi Dt:Belagavi Ltd.



WATER HARVESTING IN LS MINING PIT



MINING WASTE DUMP YARD



[Handwritten signature]
Dalmia Cement (Karnataka) Ltd.
YADWAD
991 136
Karnataka
Mudalagi Dt:Belagavi "PIT"



DEBNIK
M. A. DEBNIK CEMENT (KHARAT) LTD.
591 136
Karnataka
Belagavi Dt. Belagavi

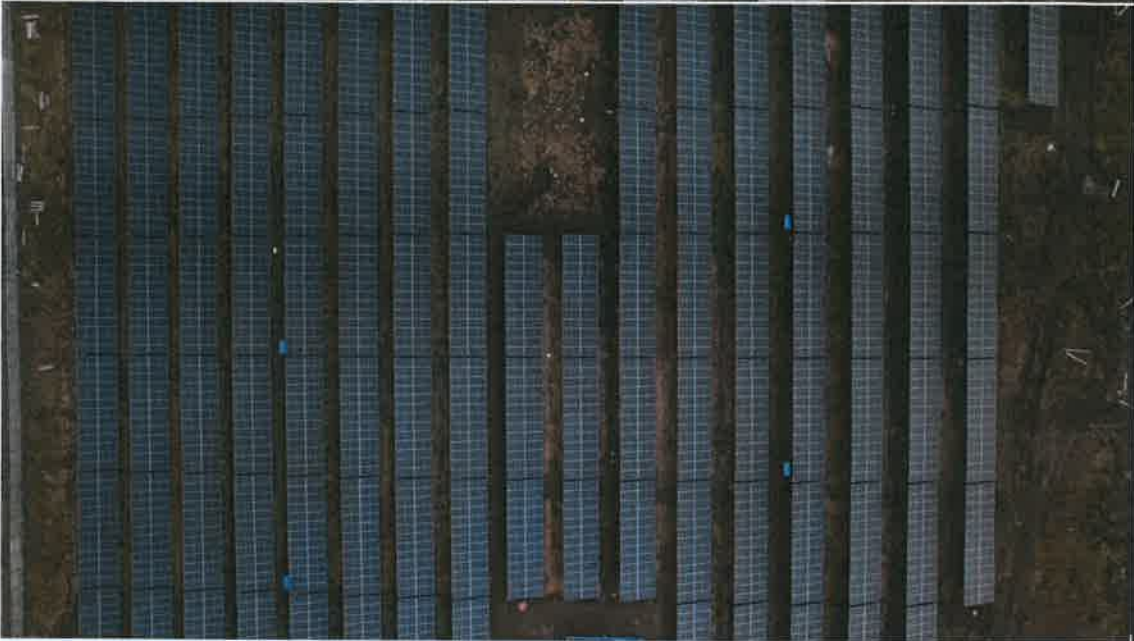


RAIN WATER HARVESTING



[Handwritten Signature]

Dalmeida Cement (India) Ltd.
YADWAD
591 136
Karnataka
Mudalagi Dt: Bellary



YADWAD
591 136
Karnataka
D:Belur



YADWAD
591 136
Karnataka
Daini Development Services Ltd.
Balaji De. Balagan

UNIT SURROUNDINGS

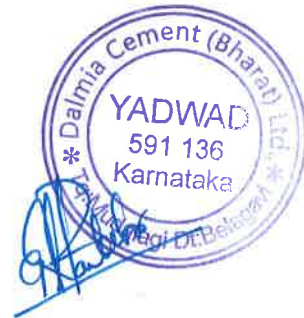


Dalmeida Cement (India) Ltd.
YADWAD
591 136
Karnataka
Bijapur Dist.

Annexure 4: Water sprinkling system at mines



Dalmia Cement (Bharati) Ltd.
YADWAD
591 136
Karnataka
Dalmia Cement (Bharati) Ltd.



Annexure-5

AMBIENT AIR QUALITY MONITORING

Date	WA I. - West Side of Mines				SA II. - South Side of Mines				NA III. - North Side of Mines				EA IV. - East side of Mines			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
22.04.2023	13	18	55	19	12	17	54	10	11	15	44	19	20	12	40	19
23.04.2023	12	14	48	20	19	13	50	20	15	17	53	10	13	17	51	17
24.04.2023	16	16	52	11	14	20	48	19	18	15	46	18	15	19	48	18
25.04.2023	14	20	47	16	18	16	45	18	19	9	48	17	17	16	57	18
28.04.2023	15	14	50	19	17	14	58	17	10	18	49	20	19	15	45	13
29.04.2023	10	18	49	17	18	15	51	19	16	9	47	19	17	19	50	16
30.04.2023	19	11	50	13	9	14	49	13	14	18	40	12	15	47	20	20
01.05.2023	15	20	43	20	17	20	41	20	12	20	50	20	11	49	17	17
10.05.2023	25	16	55	15	17	20	51	15	13	15	47	20	23	44	14	14
11.05.2023	19	14	48	17	13	15	46	20	22	17	49	18	17	54	19	19
19.05.2023	12	24	49	12	18	22	54	14	14	24	53	13	12	49	15	15
20.05.2023	25	20	50	18	16	11	47	17	12	16	48	16	19	55	11	11
26.05.2023	13	14	54	15	14	18	48	15	24	18	49	14	17	53	16	16
27.05.2023	21	24	55	13	12	15	50	20	22	14	54	17	12	47	20	20
30.05.2023	17	21	53	12	16	17	49	21	18	15	52	15	13	49	18	18
31.05.2023	15	20	54	20	21	18	55	13	16	17	51	19	18	51	17	17
07.06.2023	14	25	47	18	22	15	47	14	22	14	44	20	14	46	15	15
08.06.2023	21	18	42	12	17	25	38	15	19	11	47	14	16	50	11	11
15.06.2023	15	20	44	16	19	22	38	15	13	20	38	18	13	36	16	16
16.06.2023	18	15	31	11	23	16	43	17	17	16	36	11	19	48	14	14
22.06.2023	24	11	39	14	16	18	46	11	11	22	45	19	16	40	20	20
23.06.2023	16	23	42	16	12	22	41	19	19	15	40	12	12	42	15	15
29.06.2023	18	24	45	12	24	14	44	15	14	20	47	14	18	33	19	19
30.06.2023	20	16	47	18	21	11	42	13	16	18	42	16	20	51	17	17
05.07.2023	15	25	43	14	17	21	42	18	14	18	52	15	14	39	19	19
06.07.2023	24	18	41	16	24	18	36	16	13	20	44	19	24	47	16	16
14.07.2023	19	22	36	15	13	25	36	15	19	11	48	17	15	48	18	18
15.07.2023	17	14	45	17	19	17	41	10	16	14	36	13	18	45	20	20
17.07.2023	23	12	49	14	22	14	39	20	23	12	50	11	13	38	17	17

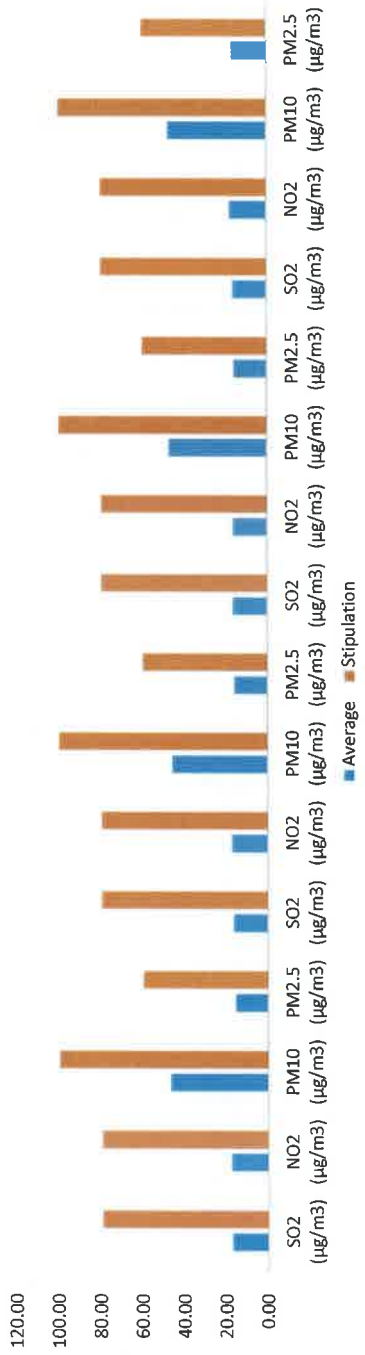


Annexure-5

Date	AMBIENT AIR QUALITY MONITORING															
	WA I. - West Side of Mines				SA II. - South Side of Mines				NA III. - North Side of Mines				EA IV. - East side of Mines			
	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)
18.07.2023	14	20	40	17	16	20	43	13	19	11	47	14	19	11	42	14
24.07.2023	24	17	42	15	18	24	35	19	17	23	41	19	23	14	46	16
25.07.2023	22	11	50	13	20	16	44	12	23	16	49	12	16	18	43	10
04.08.2023	16	21	45	17	13	16	41	19	16	18	51	16	15	18	53	18
05.08.2023	22	24	48	18	17	19	49	20	18	19	47	18	17	19	49	16
11.08.2023	20	21	52	14	15	17	47	17	15	17	49	20	18	20	51	20
12.08.2023	18	19	44	20	14	18	44	18	16	18	53	15	20	22	50	21
21.08.2023	14	17	41	19	19	21	48	16	20	21	50	17	16	18	48	17
23.08.2023	14	11	44	20	13	16	47	17	18	17	50	20	24	11	45	12
25.08.2023	23	16	40	11	23	16	45	15	21	13	43	12	11	13	44	12
27.08.2023	25	13	42	11	18	14	49	20	23	21	46	19	21	25	50	20
08.10.2023	9	12	50	21	12	17	54	15	19	21	52	10	18	16	58	24
09.10.2023	18	22	58	17	14	15	55	19	8	18	59	15	9	20	58	20
11.09.2023	14	18	53	20	13	16	50	13	17	14	51	11	18	17	50	18
12.09.2023	13	16	56	12	12	23	57	13	12	15	53	14	16	18	52	16
20.09.2023	15	20	45	18	14	18	43	17	15	19	46	19	12	20	48	18
21.09.2023	19	17	48	15	17	14	41	14	19	11	43	20	17	25	44	19
26.09.2023	12	22	45	13	16	20	38	11	14	20	46	18	20	23	46	16
27.09.2023	19	15	49	14	14	19	48	16	25	18	43	16	15	20	47	17
	17.42	17.90	46.98	15.73	16.63	17.54	45.98	16.10	16.81	16.63	47.25	16.06	16.56	17.85	47.42	16.73
	80	80	100	60	80	80	100	60	80	80	100	60	80	80	100	60



Ambient Air quality Monitoring data



Anneexure-7

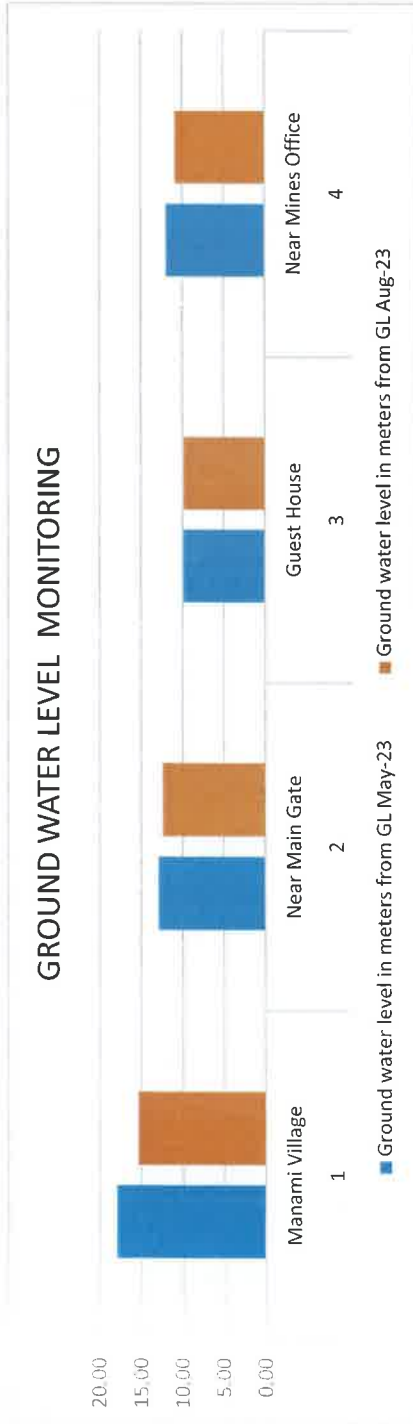
GROUND WATER ANALYSIS REPORT

Sl No	Parameters	Location code	MBy-23												Permissible Limits (IS:10500:2015)		
			DCGW1	DCGW2	DCGW3	DCGW4	DCGW5	DCGW6	DCGW2	DCGW2	DCGW2	DCGW2	DCGW2	DCGW2			
1	Colour	Hazen units	2	<1	3	1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	15
2	Ambient Temperature	°C	32.0	31.90	29.90	31.80	32.10	30.60	30.40	31.10	28.0	26.80	27.40	27.90	27.80	27.10	-
3	Conductivity	µs/cms	3510	3460	2810	3158	3580	3570	3520	3690	3105	205	3310	178	3420	3620	-
4	Total Dissolved Solids	mg/L	1960	1910	1990	1980	1975	1940	1940	1980	1990	147	1960	126	1980	1940	2000
5	pH	-	8.01	8.20	8.24	8.05	7.96	8.30	7.96	8.01	7.53	8.14	8.02	8.28	7.75	7.94	6.5 to 8.5
6	Turbidity	NTU	0.1	0.10	1.4	0.1	0.8	0.10	0.10	0.20	1.4	0.7	10.6	0.4	1.10	1.3	5
7	Total Suspended Solids	mg/L	22	2	16	19	11	3	1	2	1	2	3	2	4	2	-
8	Dissolved Oxygen	mg/L	6.60	6.30	6.90	7.10	6.60	4.60	6.80	6.80	6.30	6.70	7.40	6.70	7.30	7.00	-
9	Biochemical Oxygen Demand for 3 days at 27°C	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
10	Chemical Oxygen Demand	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
11	Phosphorous as P	mg/L	0.056	0.18	0.144	0.088	0.160	0.22	0.68	0.25	0.16	0.028	0.032	0.076	0.068	0.072	-
12	Sodium as Na	mg/L	425.70	113.80	260.10	597.30	434.30	115.90	119.70	126.20	352.8	34.10	294.0	32.60	547.30	408.20	-
13	Potassium as K	mg/L	4.70	5.10	5.0	2.10	1.40	3.60	5.60	4.10	3.8	0.1	4.10	0.10	3.4	4.4	-
14	Calcium as Ca	mg/L	108.22	91.38	83.37	175.55	132.26	125.05	99.40	132.26	192.38	10.42	142.68	6.41	147.49	193.99	200
15	Magnesium as Mg	mg/L	34.91	65.04	21.33	43.66	22.28	66.48	64.06	63.56	21.28	1.94	38.79	14.09	34.90	23.22	100
16	Total Hardness as CaCO3	mg/L	414	496	296	418	422	586	512	592	568	34.00	516	74	512	580	600
17	Chloride as Cl	mg/L	2699.92	444.86	184.94	469.85	262.42	370.88	459.86	380.88	307.40	54.98	369.89	44.99	492.35	364.89	1000
18	Sulphate as SO4	mg/L	97.98	78.30	66.54	96.04	78.24	72.00	82.00	76.00	110.79	16.59	15.36	17.39	113.74	107.91	400
19	Fluoride as F	mg/L	1.25	1.38	1.35	1.40	1.44	1.32	1.34	1.35	1.48	0.09	1.36	0.08	1.46	1.28	1.5
20	Nitrate Nitrogen as NO3	mg/L	2.56	4.30	3.47	4.13	2.48	5.10	2.82	3.21	0.89	0.086	0.87	0.25	0.89	0.036	45
21	Total Alkalinity as CaCO3	mg/L	360	360	595	425	360	335	385	350	425	45	290	45	485	395	600
22	Acidity as CaCO3	mg/L	Nil	Nil	Nil	Nil	Nil	Nil	3.00	2.00	1.0	Nil	Nil	0.5	Nil	Nil	-
23	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-
24	Total Iron as Fe	mg/L	BDL	BDL	BDL	0.160	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.151	0.267	0.192	0.3
25	Nickel as Ni	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02
26	Manganese as Mn	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.3
27	Copper as Cu	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.5
28	Zinc as Zn	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	15
29	Lead as Pb	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.01
30	Chromium as Cr	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.05
31	Silver as Ag	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.1
33	Mercury as Hg*	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.001
34	Total Coliform count*	M/100 ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Should not be detectable in any 100 ml
35	Escherichia coli count*	M/100 ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Should not be detectable in any 100 ml



Location Code
 DCGW1 : East side of Mines Working pit
 DCGW2: West Side of Mines Working Pit
 DCGW3: South Side of Mines Working Pit
 DCGW4: North Side of Mines Working Pit
 DCGW5: DCBL Entry Gate

GROUND WATER LEVEL MONITORING		
Sl.No	Location Name	Ground water level in meters from GL
		May-23
1	Manami Village	18.00
2	Near Main Gate	13.00
3	Guest House	10.00
4	Near Mines Office	11.00



RESPIRABLE DUST SAMPLING

Sr. No	Locations	Final Wt	23-May				23-Aug				Standard Limit for Free Silica (As per DGMS)
			Lab Sample Code	Date of sampling	Personal Dust Concentration in µg/cum	Free Silica Content %	Lab Sample Code	Date of sampling	Personal Dust Concentration in µg/cum	Free Silica Content %	
1	Inside HEME Cabin	0.0612	P42	18.05.2023	1	ND	P55	04.08.2023	2	ND	<5%
2	Near Packer - Packing Plant	0.0621	P41	19.05.2023	1	ND	P54	05.08.2023	1	ND	<5%
3	Inside CCR DCBL	0.0622	P44	22.05.2023	Nil	ND	P51	11.08.2023	1	ND	<5%
4	Cment Mill CCR	0.0615	P43	23.05.2023	1	ND	P53	12.08.2023	1	ND	<5%
5	Inside CCR-CPP	0.0618	P45	26.05.2023	Nil	ND	P52	23.08.2023	Nil	ND	<5%



Blasting Vibration Event Report

Date/Time Long at 3:05:11 PM November 6, 2023
 Trigger Source Geo: 0.700 mm/s, Mic: 2.000 pa.(L)
 Range Geo: 254.0 mm/s
 Record Time 2.0 sec at 1024 sps
 Operator/Setup: Operator/DCBL-1.MMB

Serial Number UM9188 V 10-76 Micromate ISEE
 Battery Level 3.7 Volts
 Unit Calibration June 26, 2023 by UES New Delhi
 File Name UM9188_20231106150511.IDFW

Notes

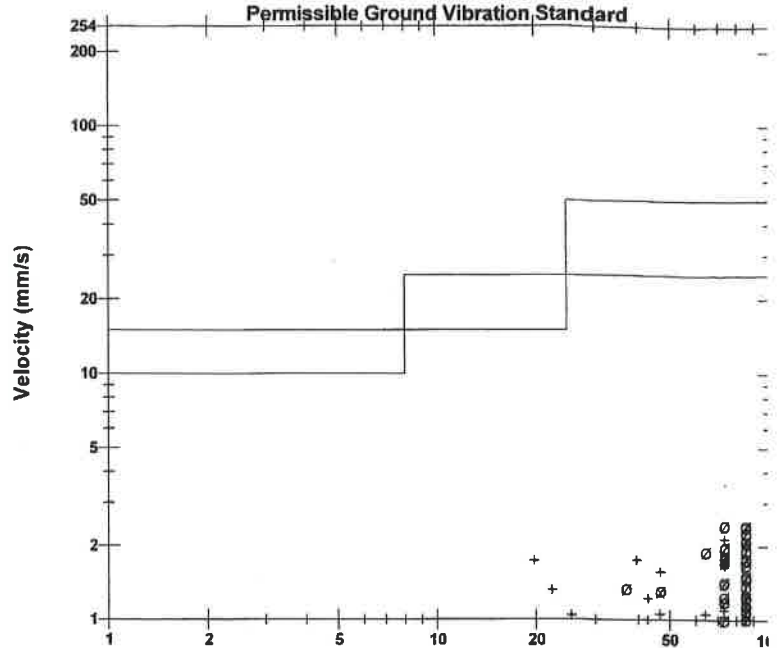
Location: YADWAD AND KUNNAL LIMESTONE MINE
 Client: DALMIA CEMENT BHARAT LIMITED
 User Name: DCBL
 General: Pit-2, N / NE / E / SE / S / SW / W / NW

Microphone Linear Weighting
 PSPL 10.60 pa.(L) at 1.641 sec
 ZC Freq 17 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1274 mv)

	Tran	Vert	Long	
PPV	2.948	1.442	2.554	mm/s
PPV (Ponderated)	1.038	0.871	0.898	mm/s
PPV	60.39	54.18	59.14	dB
ZC Freq	>100	73	>100	Hz
Time (Rel. to Trig)	0.347	0.199	0.420	sec
Peak Acceleration	0.172	0.067	0.154	g
Peak Displacement	0.007	0.005	0.006	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.3	Hz
Overswing Ratio	3.5	3.5	3.6	

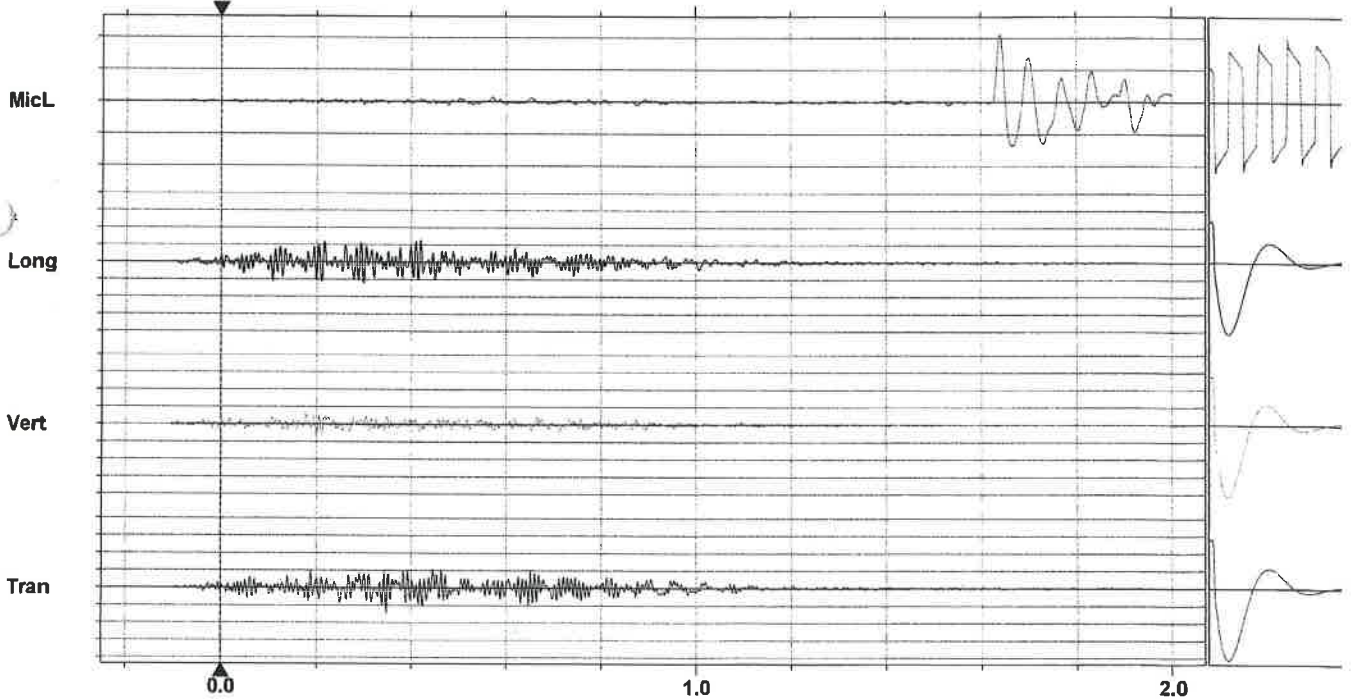
Peak Vector Sum 3.146 mm/s at 0.347 sec

DGMS India (B)



Frequency (Hz)
 Tran: + Vert: x Long: ø

- a) Industrial buildings
- b) Domestic houses/structures



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 5.000 pa.(L)/div
 Trigger = \blacktriangleleft \blacktriangleright

Sensor Check



Date/Time MicL at 1:21:13 PM August 21, 2023
Trigger Source Geo: 0.700 mm/s, Mic: 2.000 pa.(L)
Range Geo: 254.0 mm/s
Record Time 2.0 sec at 1024 sps
Operator/Setup: Operator/DCBL-1.MMB

Serial Number UM9188 V 10-76 Micromate ISEE
Battery Level 3.5 Volts
Unit Calibration June 26, 2023 by UES New Delhi
File Name UM9188_20230821132113.IDFW

Notes

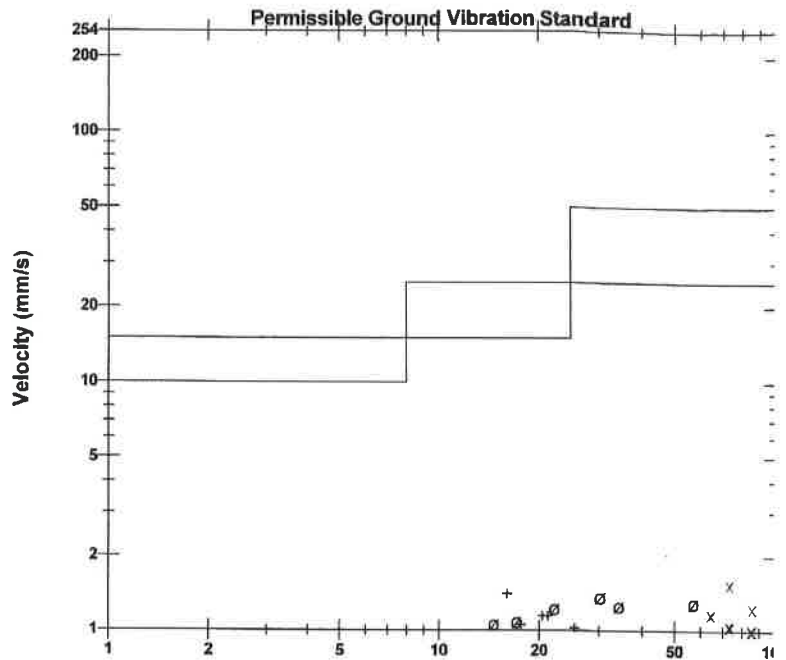
Location: YADWAD AND KUNNAL LIMESTONE MINE
Client: DALMIA CEMENT BHARAT LIMITED
User Name: DCBL
General: Pit-2, N / NE / E / SE / S / SW / W / NW

Microphone Linear Weighting
PSPL 68.39 pa.(L) at 1.872 sec
ZC Freq 9.5 Hz
Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran	Vert	Long	
PPV	1.395	1.553	1.364	mm/s
PPV (Ponderated)	0.849	0.618	0.945	mm/s
PPV	53.89	54.82	53.69	dB
ZC Freq	16	73	30	Hz
Time (Rel. to Trig)	0.518	0.345	0.481	sec
Peak Acceleration	0.050	0.075	0.057	g
Peak Displacement	0.008	0.003	0.009	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.7	7.3	Hz
Overswing Ratio	3.6	3.4	3.5	

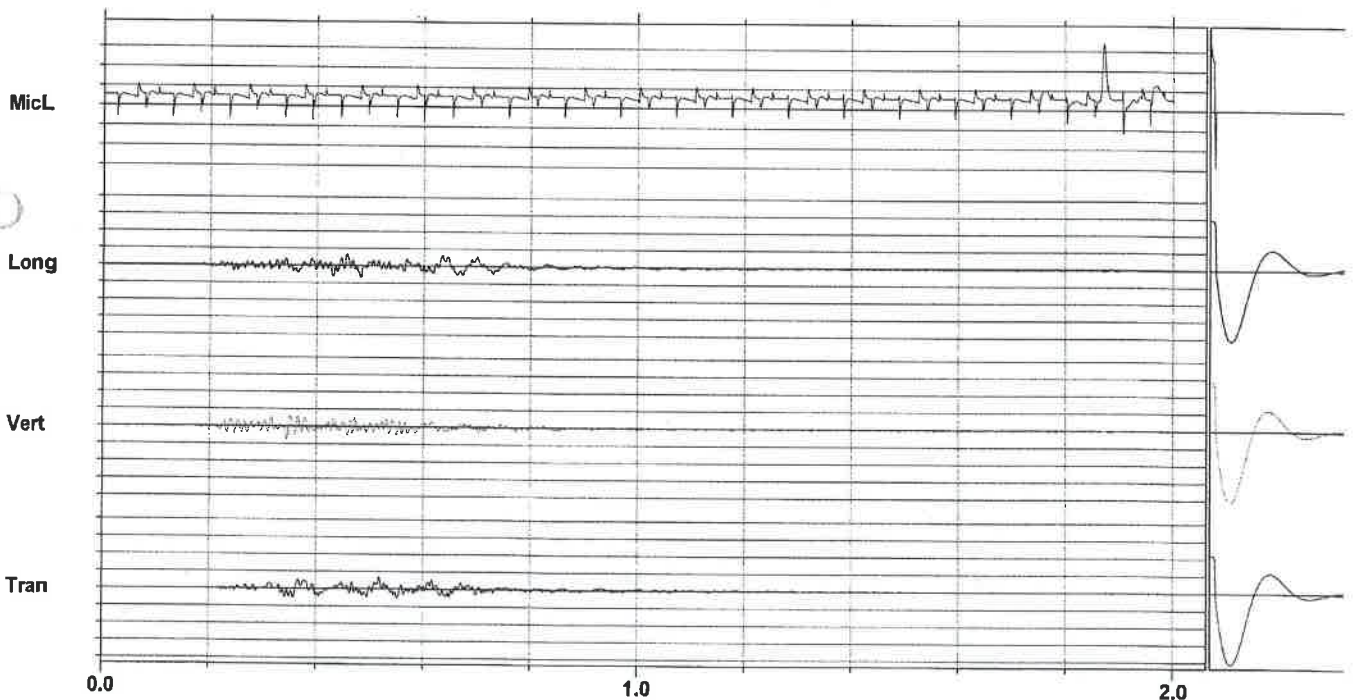
Peak Vector Sum 1.691 mm/s at 0.365 sec

DGMS India (B)



Frequency (Hz)
 Tran: + Vert: x Long: o

- a) Industrial buildings
- b) Domestic houses/structures



Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 20.00 pa.(L)/div

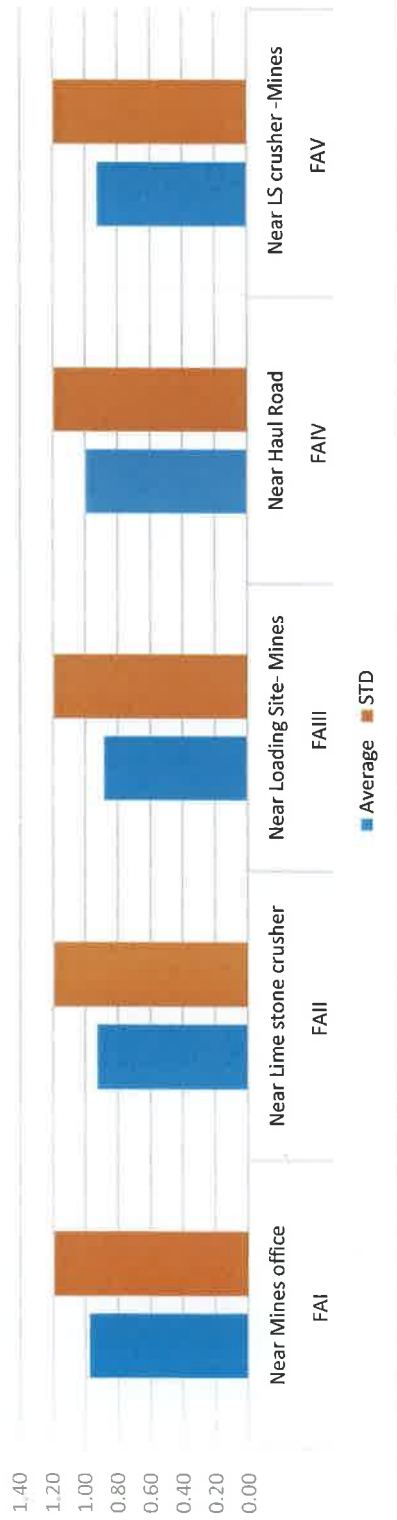
Sensor Check



FUGITIVE EMISSION MONITORING (MINES)

Sl No.	Station Code	Name of the Station	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Average	STD
1	FAI	Near Mines office	0.93	0.98	0.99	1.03	0.98	0.96	0.98	1.2
2	FAII	Near Lime stone crusher	0.89	0.82	1.0	1.08	0.74	1.05	0.93	1.2
3	FAIII	Near Loading Site- Mines	0.96	1.02	0.96	0.62	1.08	0.68	0.89	1.2
4	FAIV	Near Haul Road	1.00	0.96	1.1	1.05	1.02	0.87	1.00	1.2
5	FAV	Near LS crusher -Mines	0.96	1.04	0.86	0.76	0.96	0.98	0.93	1.2

FUGITIVE EMISSION MONITORING REPORT



VEHICLE WASH TREATED WATER QUALITY							
Sl No	Parameters	Unit	Apr-23	May-23	Jun-23	Jul-23	As per GSR 422 (E)
1	Colour	Hazen units	12	14	5	<1	-
2	Ambient Temperature	°C	29.20	32.40	28.90	28.60	-
3	pH	-	8.46	8.11	8.36	8.63	5.50 to 9.0
4	Total Dissolved Solids	mg/l	2510	2470	2630	2610	-
5	Total Suspended Solids	mg/L	14	13	4	13	100
6	Biochemical Oxygen Demand for 3 days at 27°C	mg/L	3.90	4.00	<1	<1	30
7	Chemical Oxygen Demand as O ₂	mg/L	8	8	<1	<1	250
8	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	10
9	Lead as Pb	mg/L	BDL	BDL	BDL	BDL	0.10
10	Hexavalent Chromium as Cr+6	mg/L	BDL	BDL	BDL	BDL	2.0
11	Copper as Cu	mg/L	BDL	BDL	BDL	BDL	3.0
12	Zinc as Zn	mg/L	BDL	BDL	BDL	BDL	5.0
13	Nickel as Ni	mg/L	BDL	BDL	BDL	BDL	3.0
14	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	-
15	Total Residual chlorine	mg/l	BDL	BDL	BDL	BDL	1
16	Ammonia as NH ₃	mg/L	Nil	Nil	Nil	Nil	5.0
17	Kjeldahl nitrogen as NH ₃	mg/L	0.28	0.28	0.28	0.28	100
18	Ammonical nitrogen as N	mg/L	0.05	0.05	0.10	0.13	50
19	Cadmium as Cd	mg/L	BDL	BDL	BDL	BDL	2.00
20	Arsenic as As	mg/L	BDL	BDL	BDL	BDL	-
21	Mercury as Hg	mg/L	BDL	BDL	BDL	BDL	0.01
22	Selenium As Se	mg/L	BDL	BDL	BDL	BDL	0.05
23	Boron as B	mg/L	BDL	BDL	BDL	BDL	-
24	Percent Sodium	mg/L	11.95	10.00	17.84	11.70	-

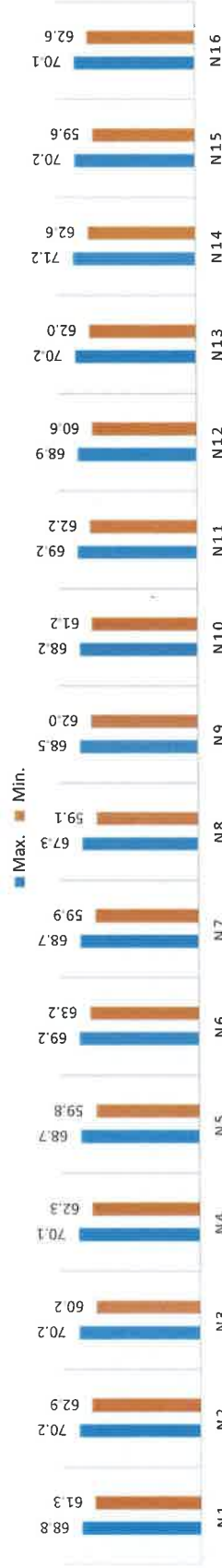


Annexure-12

WORK PLACE NOISE LEVEL MONITORING

Sl.No	Code	Sampling Location	Unit	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		Average	
				Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	N1	At Packing plant-truck loading	dB	66.8	63.1	68.8	63.4	68.8	63.4	67.3	61.3	66.2	62.1	68.2	62.2	68.8	61.3
2	N2	At Cement mill	dB	68.5	66.7	70.2	62.9	70.2	62.9	69.8	64.8	67.2	63.3	67.2	63.1	70.2	62.9
3	N3	At CCR	dB	65.3	60.2	69.7	62.3	69.7	62.3	70.2	62.4	69.2	62.2	69.3	63.4	70.2	60.2
4	N4	At main gate Security office	dB	70.1	62.5	68.6	62.3	68.6	62.3	67.3	63.4	66.3	62.9	65.3	64.2	70.1	62.3
5	N5	At Clinker cooler	dB	68.2	59.8	65.3	61.3	65.3	61.3	66.1	62.9	65.3	60.2	68.7	65.2	68.7	59.8
6	N6	At Raw Mill	dB	68.8	63.2	69.2	65.2	69.2	65.2	68.6	65.2	67.2	63.2	64.8	63.2	69.2	63.2
7	N7	At Coal mill	dB	62.3	59.9	68.5	64.2	68.5	64.2	67.2	63.3	68.6	64.1	68.7	61.1	68.7	59.9
8	N8	At Health center	dB	64.5	59.1	65.6	61.3	65.6	61.3	67.3	66.4	65.2	63.2	66.6	64.1	67.3	59.1
9	N9	At CCR-CPP	dB	60.3	62.5	68.5	62.3	68.5	62.3	67.1	62.0	64.2	62.1	68.2	63.1	68.5	62.0
10	N10	At Turbine floor	dB	68.2	66.4	63.2	61.2	63.2	61.2	66.2	62.3	65.2	61.9	67.2	64.1	68.2	61.2
11	N11	At LS crusher	dB	67.2	64.2	66.6	63.2	66.6	63.2	67.8	63.8	66.3	62.2	69.2	62.3	69.2	62.2
12	N12	At Guest House	dB	68.2	62.5	68.9	61.5	68.9	61.5	68.8	61.6	65.2	60.6	67.9	62.2	68.9	60.6
13	N13	At Store	dB	65.6	62.0	70.2	63.5	70.2	63.5	69.8	68.5	67.2	63.2	68.8	66.2	70.2	62.0
14	N14	Near Packer-Packing Plant	dB	71.2	67.1	68.7	65.6	68.7	65.6	68.7	65.2	69.2	62.6	69.2	64.2	71.2	62.6
15	N15	At Mines office	dB	64.0	59.6	70.2	64.2	68.8	62.3	65.3	62.1	66.2	62.5	64.2	61.9	70.2	59.6
16	N16	Inside HEME equipment cabin	dB	70.1	65.8	69.8	63.7	66.2	62.9	64.9	63.2	65.2	63.1	66.2	62.6	70.1	62.6

WORK PLACE NOISE MONITORING (APR 23 -SEP-23)



AMBIENT NOISE LEVEL MONITORING

Sl.No	Code	Sampling Location	Unit	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		Average		STD	
				Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1	N1	West side of Working Pit	dB	59.2	52.0	58.7	51.8	57.2	52.1	56.6	51.9	55.2	51.2	55.2	52.2	57.0	51.9	75.0	70.0
2	N2	South side of Working Pit	dB	56.2	54.1	55.7	53.5	56.2	54.1	57.2	55.6	56.1	54.2	58.4	56.2	56.6	54.6	75.0	70.0
3	N3	North side of Working Pit	dB	62.8	58.5	63.4	57.8	62.1	56.1	63.4	57.4	64.3	56.7	64.2	57.2	63.4	57.3	75.0	70.0
4	N4	East side of Working Pit	dB	58.6	56.5	58.7	55.2	58.2	54.3	59.3	55.7	58.4	55.1	58.3	55.5	58.6	55.4	75.0	70.0
5	N1	At Main Entrance gate	dB	59.8	58.2	58.5	57.8	58.1	56.2	57.2	55.2	56.3	54.2	56.8	57.8	57.8	56.6	75.0	70.0
6	N2	Yadwad village	dB	54.5	44.6	53.6	43.5	52.1	43.3	53.7	42.9	54.2	43.2	52.8	43.1	53.5	43.4	55.0	45.0
7	N3	Manami village	dB	53.8	43.2	54.5	44.5	53.2	44.4	53.6	43.8	53.1	42.9	54.2	42.9	53.7	43.6	55.0	45.0
8	N4	At Guest House	dB	50.8	41.7	51.2	41.8	52.3	41.7	51.1	41.2	52.2	43.2	53.2	42.4	51.8	42.0	55.0	45.0

