

MGR/PC-14/C14/C11/

Through Email

Date: 18.11.2023

To,
The Director (M),
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhawan,
JOR Bagh Road, Aliganj,
New Delhi-110003

Sub: Submission of Six-monthly Environmental Clearance Condition Wise Compliance report of J.K. Cement Works, Mangrol, Mangrol Limestone Mine (ML No: 26/08, ML area 132 Ha.)

Ref.: EC letter no. - J-11015/427/2008-IA. II(M) dated. 6th August 2010

Dear Sir,

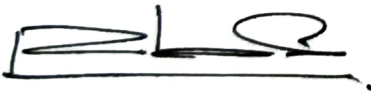
Please be informed that with reference to the above subject, we **J.K. Cement works, Mangrol** located at Village Mangrol, Tehsil Nimbahera, District Chittorgarh, State Rajasthan here with submit the **Six-monthly Environment Clearance condition wise compliance report for the period of April 2023 to September 2023 for Mangrol Limestone mine to your good office.**

As per MoEF & CC notification no. S.O. 5845 (E) 26.11.2018 the soft copy of same has been sent through email to moef@nic.in, ccb.cpcb@nic.in, member-secretary@rpcb.nic.in, cpcb.bhopal@gov.in, monitoring-ec@nic.in, iro.jaipur-mefcc@gov.in. This is for your information and records purpose.

Thanking you.

Yours Faithfully

For J. K. Cement Works, Mangrol



R. B. M. Tripathi
Unit Head & President (Operations)

Encl: Environment Clearance Condition wise compliance report for the period of April 2023 to September 2023
Copy to:

1. The Deputy Director(S), Ministry of Environment, Forests & Climate Change, Integrated Regional office, Jaipur, A-218, Aranya Bhawan, Jhalana Institutional Area, **Jaipur-302004**
2. The Regional Director, Central Pollution Control Board, Paryavaran Parisar, E-5, Area colony, **Bhopal (M.P) 462016**
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, **New Delhi 110032.**
4. The Chairman, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, **RAJ, Jaipur - 302004**

Corporate Office

Padam Tower, 19 DDA Community Centre
Okhla, Phase - 1, New Delhi - 110020, India
+011-49220000
admin.padamtower@jkcement.com
www.jkcement.com

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Form for Uploading Six Monthly Compliance Report

Proposal Details

Proposal No.	IA/RJ/MIN/8947/2008	Project Name		Mangrol Limestone Mining Project (ML No.: 26/08, Area 132 ha. of M/s. J.K. Cement Works, located in Village - Mangrol, Tehsil - Nimbahera, District Chittorgarh, Rajasthan (Limestone 1.5 MMTPA))
Category		A	MoEF File No.	J-11015/427/2008-IA. II (M) dated 06th August, 2010
Name of the Entity /Corporate Office*		M/s. J.K. Cement Works, Nimbahera, Kailash Nagar, District Chittorgarh-312617 (Rajasthan)		
Entity's PAN*		AABCJ0355R		
Entity Name as per PAN		J K CEMENT LIMITED.		

Compliance Letter/Report

Reporting Year*	2023	Reporting Period*	April-2023 to September-2023
Remarks (if any)	Submitting herewith the Six-Monthly EC Compliance Report for the period: April-2023 to September-2023 of Mangrol Limestone Mine (ML. No.: 26/08, Area 132.00 ha.) - Limestone Production - 1.5 MMTPA.		

Details of Production and Project Area

Date of Commencement of Project /Activity: *	13-06-2013	Project Area as Per EC Granted (In Case of Mine Lease): *	132.00 Ha.
Actual Project Area (In Case of Mine Lease): *	115.23 Ha.		

PRODUCTION CAPACITY

Name of the Product*	Units*	As per EC granted*	Production during FY: 2021-22*	Production during FY*: 2022-23
Cement Grade Limestone	Million TPA	1.500	0.99208	0.109329
Subgrade Limestone	Million TPA	-	0.02580	0.000000
Interstitial Clay/ Screen rejects/ Waste	Million TPA	-	0.012156	0.000046
Topsoil	Million TPA	-	1.02990	0.109375
Total Excavation Quantity	Million TPA	1.500	0.99208	0.109329

Mangrol Limestone Mine (M.L. No.: 26/08, Area - 132.00 ha.)

M/s. J. K. Cement Works, at Village - Mangrol, Tehsil - Nimbahera, District - Chittorgarh, Rajasthan-312617

EC Compliance Report for the period: April-2023 to September-2023

Mangrol Limestone Mine (ML No.: 26/08, Area 132 ha., Limestone 1.5 MMTPA, Village-Mangrol, Tehsil-Nimbahera, District-Chittorgarh, Rajasthan

Environment Clearance vide No.: J-11015/427/2008-IA. II (M) dated 06th August, 2010

A SPECIFIC CONDITION					
S. No	Condition Type	Environmental Parameter	Description of Condition	Self-Declaration	Remarks/Reason
1	Specific Condition	Statutory Compliance	The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.	Noted for Compliance	Consent to operate has been obtained vide letter No:F(Mines)/Chittorgarh (Nimbahera)/1863(1)/2016-2017/7040-7044. dated 25.02.2019, valid up to 31.01.2024.
2	Specific Condition	Statutory Compliance	Environmental clearance is granted subject to outcome of Hon'ble Supreme Court of India in Contempt Petition (C) No.412/2004 in IA No. 833 in Writ Petition (C) No. 202 of 1995, as may be applicable to this project.	Agree	Wea re abide by law
3	Specific Condition	Miscellaneous	The environmental clearance is subject to approval of the State Land Use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.	Noted for Compliance	Private agriculture land is used only after diversion for non-agriculture use from state revenue department.
4	Specific Condition	Statutory Compliance	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.	Noted for Compliance	Permission for use of grazing land for mining purpose has been obtained from Revenue Department, Govt. of Rajasthan vide letter No.: Revenue/2011-12 dated 12/01/2012.
5	Specific Condition	Miscellaneous	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land	Noted for Compliance	Fodder plots are being developed in our purchased land having non-mineralized zone and are falling in our mines lease area.

6	Specific Condition	Statutory Compliance	The mining operations shall be restricted to above ground water table, and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	Noted for Compliance	<div>Water table will not be intersected during the conceptual phase/life of mine. Detail of the mine elevation ground water table and working level are given below.</div> <table><tr><th>S. N.</th><th>Particulars</th><th>Level (MSL)</th><th>BGL (M)</th></tr><tr><td>1</td><td>Highest Elevation</td><td>440</td><td>--</td></tr><tr><td>2</td><td>Lowest Elevation</td><td>432</td><td>--</td></tr><tr><td>3</td><td>General Ground Level</td><td>435</td><td>--</td></tr><tr><td>4</td><td>Water Table (Pre-Monsoon)</td><td>380-385</td><td>50-55</td></tr><tr><td>5</td><td>Water Table (Post-Monsoon)</td><td>395</td><td>40</td></tr><tr><td>6</td><td>Ultimate Pit Limit</td><td>395</td><td>40</td></tr></table>	S. N.	Particulars	Level (MSL)	BGL (M)	1	Highest Elevation	440	--	2	Lowest Elevation	432	--	3	General Ground Level	435	--	4	Water Table (Pre-Monsoon)	380-385	50-55	5	Water Table (Post-Monsoon)	395	40	6	Ultimate Pit Limit	395	40
S. N.	Particulars	Level (MSL)	BGL (M)																														
1	Highest Elevation	440	--																														
2	Lowest Elevation	432	--																														
3	General Ground Level	435	--																														
4	Water Table (Pre-Monsoon)	380-385	50-55																														
5	Water Table (Post-Monsoon)	395	40																														
6	Ultimate Pit Limit	395	40																														
7	Specific Condition	Statutory Compliance	The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations	Noted for Compliance	<div>There are no large channels or other sources of water in the area. The water drains out of the area following the natural slope. No natural water course is being obstructed during mining operation.</div>																												
8	Specific Condition	Mining Plan	The topsoil 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	Noted for Compliance	Topsoil generated during FY 22-23 is 0.000046 million TPA.																												
9	Specific Condition	Waste Management	The waste generated during the mining operation shall be stacked at the earmarked site and reclaimed by the plantation. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Lucknow on six monthly basis.	Noted for Compliance	<div>No waste/mineral tailings occurred between April 2023 to September 2023. Accumulated wastes and mineral wastes are piled up in a predetermined place and levelled and stabilized by planting.</div>																												

10	Specific Condition	Mining Plan	The void left unfilled in the entire excavated area of 88.55 ha. shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced, and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out all along the excavated area.	Partially Complied	Whole excavated area will be used for collection of harvested rainwater. The entire excavated area will be properly fenced along the periphery and plantation to be done at the end of life of mine.
11	Specific Condition	Miscellaneous	Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, temporary soil, mineral dumps, and waste dump(s) to arrest flow of silt and sediment directly into the agricultural fields, the Gambhiri dam, the Murlia reservoir, the Gambhiri river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. Garland drains, setting tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and waste dump(s) to prevent run off of water and flow of sediments directly into the agricultural fields, the Gambhiri dam, the Murlia reservoir, the Gambhiri river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site.	Complied	Construction of catchments and sludge ponds around mines prevents runoff & sediment from entering water bodies, Garland drainage system is also designed to prevent water drainage and sediment runoff.
12	Specific Condition	Miscellaneous	Dimension of the retaining wall at the toe of the waste dumps and the waste benches within the mine to check run-off and siltation should be based on the rain fall data.	Complied	Since there is no generation of waste, only topsoil is generated, which is being used in plantation. Garland drains and siltation pond has been constructed to check runoff.

13	Specific Condition	Green Belt Development	Plantation shall be raised in an area of 14 ha including a 7.5 m wide green belt in the safety zone around the mining lease, reclaimed area, around water body, around waste dumps along the roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department. The density of the trees should be around 1000 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Complied	In FY 2022-23, total plantation done in safety zone in 0.7 ha. with 3961 of saplings. In FY 2022-23, total plantation done within lease in 2.01 ha. with 2829 of saplings.
14	Specific Condition	Statutory Compliance	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.	Complied	Water sprinkling done on the haul roads by water tanker. Wet drilling system is practiced. AAQ monitoring in core & buffer zone are being conducted and the results are well within the norms
15	Specific Condition	Water Quality Management & Preservation	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.	Complied	Rainwater is being collected in mine pit and utilized in cement plant operation.

16	Specific Condition	Water Quality Management & Preservation	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 and Forests and its Regional Office, Lucknow, 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.	Complied	As per mining plan, groundwater values are measured in the network of existing wells. 3piezo holes for periodical and one DWLR with a telemetry system for online monitoring of groundwater levels.
17	Specific Condition	Water Quality Management & Preservation	Appropriate mitigative measures shall be taken to prevent pollution of the Gambhiri River and Murlia Dam in consultation with the State Pollution Control Board.	Noted for Compliance	Gambhiri dam and Murlia dam is far away from the mine and non-electrolyte delay detonator control blasting is implemented
18	Specific Condition	Water Quality Management & Preservation	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water required for the project.	Noted for Compliance	NOC Received Update Video Letter No.: CGWA/NOC/MIN/REN/3/2023/7879. Corrigendum vide letter No21-4/532/RJ/MIN/2012, dated 07/04/2023, valid up to 06/04/2025.
19	Specific Condition	Water Quality Management & Preservation	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	Complied	Rainwater harvesting is being done through mine pit water stored in lower most benches and constructed one recharge well & 02 Nos. Check Dams to augment the water resources in the mines area

Photographs of RWH Structures



20	Specific Condition	Miscellaneous	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.	Complied	Dump trucks used in mines are routinely tested for vehicle emissions every six months and are always kept below acceptable limits. The tippers are not being loaded above the rated capacity.
21	Specific Condition	Noise, Vibration Monitoring & Preservation	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Complied	A non-electrical delay detonator system is used during blasting. Regular monitoring of ground vibration is carried out. A lock breaker is used to avoid secondary explosions.
22	Specific Condition	Noise, Vibration Monitoring & Preservation	The project proponent shall take all mitigative measures during the mining operation to ensure that the buildings/structures in the nearby areas shall not be affected due to blasting.	Complied	No secondary blasting is being done during the mining operation. Oversized boulders are broken by use of Hydraulic Rock breaker.

23	Specific Condition	Air Quality Monitoring & Preservation	Drills shall either be operated with dust extractors or equipped with water injection system.	Complied	A water injection system is installed on the wagon drill to control dust at the source of generation.
24	Specific Condition	Air Quality Monitoring & Preservation	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.	Complied	Haul road water sprinkling system and wet muck pile for loading the material is practiced
25	Specific Condition	Water Quality Management & Preservation	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	Complied	STP is installed in the colony. No industrial wastewater is generated from mines operations. The wastewater from Workshop (Pit followed by Oil separation tank) is used for dust suppression.
26	Specific Condition	Human Health Environment	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.	Complied	Pre-placement initial medical examination of the workers is carried out and record being maintained. The health checkup schedule is stipulated to be conducted once every five years for each employee
27	Specific Condition	Miscellaneous	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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Noted for Compliance	No construction labour is being engaged

28	Specific Condition	Air Quality Monitoring & Preservation	The critical parameters such as RSPM (Particulate matter with size less than 10 microns 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 the 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-IA. II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	Complied	Critical Air Quality parameters are measured regularly. No wastewater is generated during mines operation. KMP parameters are uploaded to the website www.jkcement.com/environmental-compliance .
29	Specific Condition	Mining Plan	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.	Noted for Compliance	Progressive Mine Closure Plan is prepared along with approved Mining plan. There is no plan of final mine closure in first five year of Mining Plan.
30	General Condition	Statutory Compliance	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest, and Climate Change.	Noted for Compliance	There is no change in the technology and scope of work.
31	General Condition	Mining Plan	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	Complied	Mining is being done in accordance with approved Mining Plan.
32	General Condition	Biodiversity	Conservation measures for protection of flora and fauna in the core and buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.	Noted for Compliance	Integrated WLCP has been prepared for 5 Nos. of captive Limestone Mines and 2 Nos. of Integrated Cement Plant of J K Cement Ltd within 10 Km radius in Tehsil Nimbahera, Chittorgarh District.

33	General Condition	Air Quality Monitoring & Preservation	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 10 micron 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.	Complied	Ambient Air Quality Monitoring stations has been established in consultation with the State Pollution Control Board vide letter no. MGR/PC/28/1600 on dated 4/10/2013.
34	General Condition	Air Quality Monitoring & Preservation	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 and Forests including its Regional Office located at Lucknow and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Complied	Monitoring data is regularly submitting to the concerned offices. Latest EC compliance report for the period: October 2022 to March 2023 has been submitted dated 18.05.2023, e-mailed on 27.05.2023
35	General Condition	Air Quality Monitoring & Preservation	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.	Complied	Water sprinkling for haul roads, loading & unloading point and transfer points has been provided. Green belt developed in and around mine lease area to control fugitive dust emission.
36	General Condition	Noise, Vibration Monitoring & Preservation	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	Complied	Regular maintenance of the HEMM is performed to keep noise levels within specified limits. Earplugs will be provided to operators operating HEMMs.
37	General Condition	Water Quality Management & Preservation	Industrial wastewater (workshop and wastewater 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 31st December 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	Noted for Compliance	No industrial wastewater is generated during the operation of the mine, and wastewater from the workshop is collected (pit followed by Oil separation tank) and used for dust control.

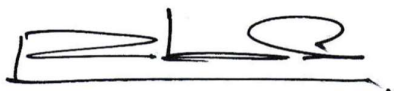
39	General Condition	Human Health Environment	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Complied	PPES are provided for all personnel working in dusty areas. Training and information on safety and health aspects will be provided & monitor the health of workers in the workplace.
40	General Condition	Statutory Compliance	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.	Complied	The Environmental Management Cell consists of qualified personnel who report directly to FH, UH and COH.
41	General Condition	Corporate Environment Responsibility	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 and Forests and its Regional Office located at Lucknow.	Complied	Established a separate fund for environmental conservation measures. Reports are sent periodically to the competent authorities.
42	General Condition	Miscellaneous	The project authorities should be informed to the Regional Office located at Lucknow regarding data of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Complied	Total project cost of mine is 44.0662 Cr. and commercial date of production is 13.06.2013 of this mine.
43	General Condition	Statutory Compliance	The Regional Office of this Ministry located at Lucknow 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.	Noted for Compliance	Noted and will extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/ monitoring reports.

44	General Condition	Statutory Compliance	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 and Forests, its Regional Office located at Lucknow, 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 and Forests, Lucknow, the respective Zonal Office of Central Pollution Control Board, and the State Pollution Control Board.	Complied	The last Six-Monthly EC Compliance Reports has been submitted dt 18.05.2023, e-mailed on 27.05.2023 and uploaded on company website: https://www.jkcement.com/environmental-compliance
45	General Condition	Miscellaneous	A copy of the clearance letter shall be sent by the proponent to be 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.	Complied	Copies of the EC have been forwarded to the relevant authorities, Panchayat, Jira Parishad, local governments, and municipalities. The EC letter is also published on our website public domain
46	General Condition	Miscellaneous	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	Not Applicable	This condition not related to us.

47	General Condition	Statutory Compliance	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 also 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 and Forests, Lucknow by e-mail.	Complied	The Environmental Statement Report for fiscal year 2022-23 has been submitted with Video Letter No.: MGR/PC/ESR/21/639, dated 23 rd September 2023.
48	General Condition	Statutory Compliance	The project authorities should advertise at least in two local newspapers widely circulated, 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 website of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.	Complied	Implemented and the necessary information already sent to the concerned authority.

Yours Sincerely,

For, J. K. Cement Works, Mangrol
Tilakhera Limestone Mines



R.B.M. Tripathi
Unit Head & President (Operations)
(Authorized Signatory)

Date/Time Tran at 13:45:29 August 5, 2023
Trigger Source Geo: 0.500 mm/s
Range Geo: 254.0 mm/s
Record Time 3.0 sec at 2048 sps
Operator/Setup: Operator/ATKM.MMB

Serial Number UM19522 V 10-90GC Micromate ISEE
Battery Level 3.4 Volts
Unit Calibration September 7, 2022 by UES New Delhi
File Name UM19522_20230805134529.IDFW

Notes

Location: NORTH PIT
Client: AMAL TILAKHERA MINE
User Name: J K CEMENT WORKS MANGROL
General: LIMESTONE MINE

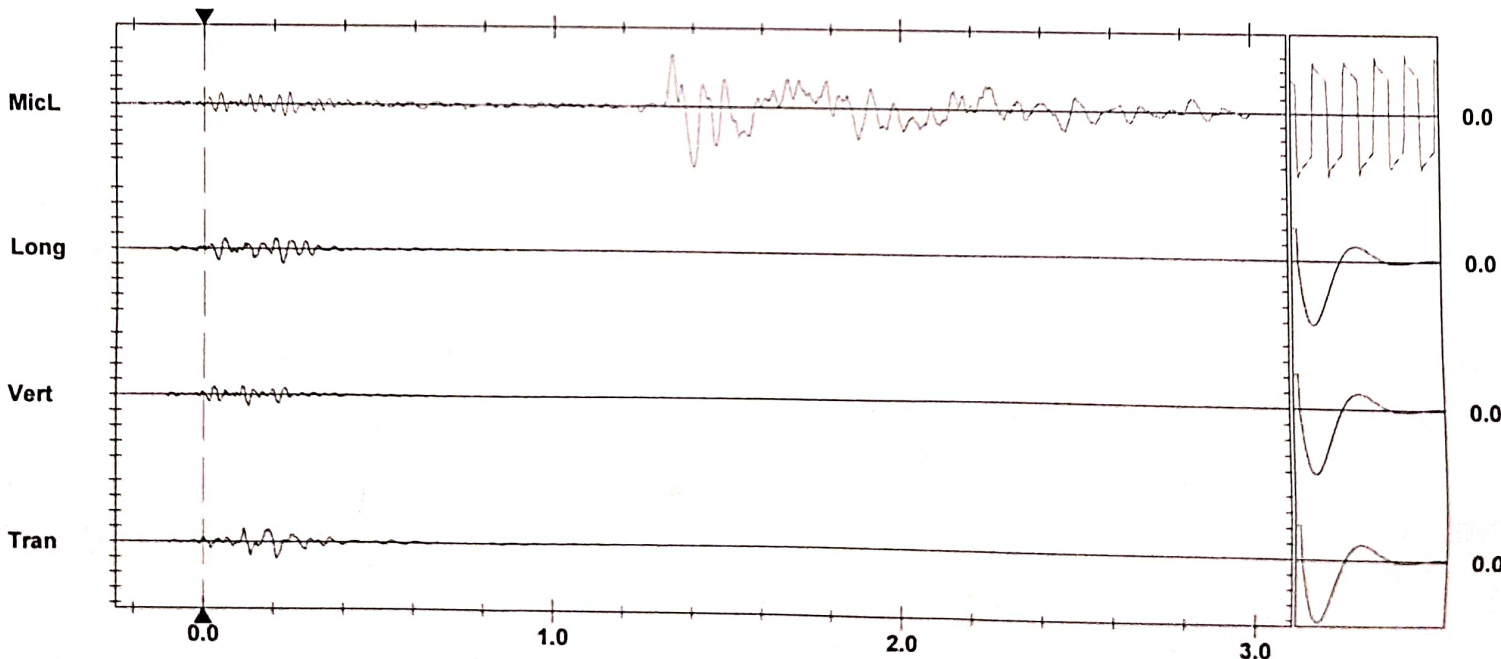
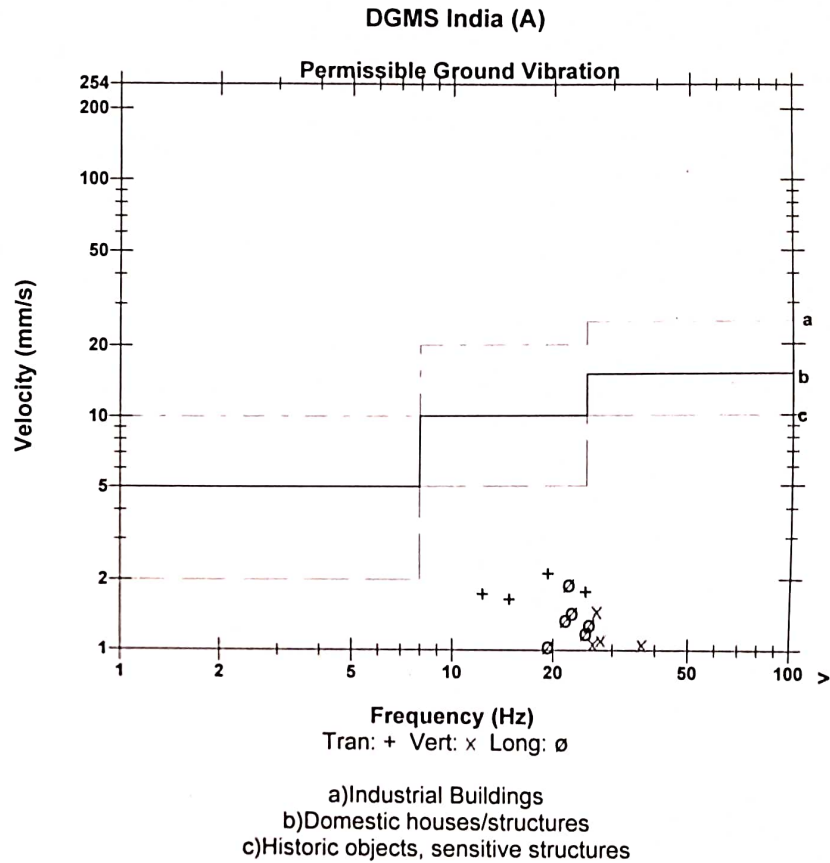
Post Event Notes

Mangrol Limestone Mine
 BID= 1--131, Bench- III N-Pit, 7 holes , C/D= 21.50 Kg
 Distance from back side of Blasting Face= 300 Mtr.

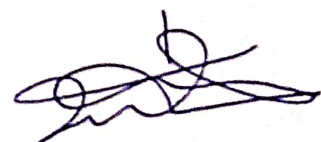
Microphone Linear Weighting
PSPL 106.9 dB(L) at 1.404 sec
ZC Freq 11.6 Hz
Channel Test Passed (Freq = 20.5 Hz Amp = 1221 mv)

	Tran	Vert	Long	
PPV	2.120	1.474	1.915	mm/s
ZC Freq	19.3	27	22	Hz
Time (Rel. to Trig)	0.210	0.129	0.224	sec
Peak Acceleration	0.044	0.063	0.058	g
Peak Displacement	0.017	0.008	0.013	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.3	7.5	Hz
Overswing Ratio	4.1	4.1	4.3	

Peak Vector Sum 2.486 mm/s at 0.209 sec



Rajni
(RKR AVS)





J.K.CEMENT WORKS,MANGROL (RAJ.)

AMBIENT AIR QUALITY REPORT

Period: April-2023 to September-2023

Mangrol Limestone mine

Sr.No	Month	Towards Factory Gate						Near Ravana Office					
		SPM ($\mu\text{g}/\text{M}^3$)	PM-10 ($\mu\text{g}/\text{M}^3$)	PM-2.5 ($\mu\text{g}/\text{M}^3$)	SO2 ($\mu\text{g}/\text{M}^3$)	Nox ($\mu\text{g}/\text{M}^3$)	CO ($\mu\text{g}/\text{M}^3$)	SPM ($\mu\text{g}/\text{M}^3$)	PM-10 ($\mu\text{g}/\text{M}^3$)	PM-2.5 ($\mu\text{g}/\text{M}^3$)	SO2 ($\mu\text{g}/\text{M}^3$)	Nox ($\mu\text{g}/\text{M}^3$)	CO ($\mu\text{g}/\text{M}^3$)
		500	100	60	120	120	5000	500	100	60	120	120	5000
1	Apr-23	367	67.6	33.9	13	23.4	796	407	72.9	34	16.2	15.8	882
2	May-23	389	71.7	24.4	10.5	19.3	899	358	76.8	28.5	9.3	12.4	653
3	Jun-23	344	68.7	35.9	11.2	21.6	705	330	73.4	30.7	8.4	22.5	670
4	Jul-23	361.4	68.4	42.4	11.2	24.0	699	364.6	69.7	42.9	7.6	22.8	664
5	Aug-23	374.5	66.2	34.9	9.7	21.6	716	347.4	64.4	32.9	11.6	21.3	705
6	Sep-23	360.1	66.9	38.5	14.0	20.9	619	365.9	65.9	37.9	9.2	17.8	596
Half-Yearly Average		366	68.3	35.0	11.6	21.8	739	362	70.5	34.5	10.4	18.8	695
Sr.No	Month	3 to10 Meter Distance from Drilling Operation						Near Loading point					
		SPM ($\mu\text{g}/\text{M}^3$)			SO2 ($\mu\text{g}/\text{M}^3$)	Nox ($\mu\text{g}/\text{M}^3$)	CO ($\mu\text{g}/\text{M}^3$)	SPM ($\mu\text{g}/\text{M}^3$)		SO2 ($\mu\text{g}/\text{M}^3$)	Nox ($\mu\text{g}/\text{M}^3$)	CO ($\mu\text{g}/\text{M}^3$)	
		600			120	120	5000	600		120	120	5000	
1	Apr-23	359			12	26	733	337		13	29	779	
2	May-23	430			16	20	785	363		15	18	727	
3	Jun-23	358			11	19	682	365		12	17	705	
4	Jul-23	377			9	21	723	384		10	20	718	
5	Aug-23	368			11	21	735	379		12	21	756	
6	Sep-23	376			11	21	645	398		11	22	698	
Half-Yearly Average		378			11.5	21.4	717	371		12.2	21.1	731	

Monitored By

Checked By





J.K. CEMENT WORKS, MANGROL,(RAJASTHAN)

NOISE MONITORING REPORT FOR PHERIPHARY OF MANGROL LIMESTONE MINE

Period: APRIL 2023 to SEPTEMBER 2023

NOISE LEVEL

Sr.No.	Month	Day / Night	Towards Factory Gate	Near Ravana Office	Remarks
1	Apr-23	Day	65.1	64.7	
		Night	50.1	49.6	
2	May-23	Day	62.7	68.4	
		Night	48.4	47.8	
3	Jun-23	Day	68.1	63.8	
		Night	50.2	49.6	
4	Jul-23	Day	62.1	64.3	
		Night	50.8	51.4	
5	Aug-23	Day	65.3	67.1	
		Night	51.8	52.4	
6	Sep-23	Day	66.5	64.8	
		Night	51.8	50.6	
Half-Yearly Average		DAY	65.0	65.5	
		NIGHT	50.5	50.2	

Monitored By

Checked By

J.K. CEMENT WORKS, MANGROL, VILLAGE-MANGROL, TEHSIL-NIMBAHERA, DISTRICT-CHITTORGARH, RAJASTHAN





TEST REPORT

1. **Name of Customer** : Tilakhera Limestone Mine,
Mine Lease Area(MLA) - 07/97
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. **Purchase Order Number** : 4600093211 Dated:- 13.06.2023
3. **Date & Time of Monitoring** : 08.06.2023/11:50AM
4. **Sample Identification** : Air Sample
5. **Condition of Sample** : Sealed/Ok
6. **Sample Received On** : 10.06.2023
7. **Period of Analysis** : 10.06.2023 to 22.06.2023
8. **Name of Location** : Arnia Joshi Village, Tilakhera
9. **Method of Sampling** : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1427.9
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.175
3.	Ambient Temperature	°C	32.7
4.	Relative Humidity	%	49

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	49.06	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	25.31	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	11.31	80
5.	Ozone as O ₃	IS:5182 (Part-9)	µg/m ³	BDL(<20)	100
6.	NH ₃	CPCB manual & 401-Method Air sampling & analysis, 3rd Edition	µg/m ³	21.13	400
7.	Lead	IS:5182 (Part-22)	µg/m ³	BDL(<0.05)	1 (24 hour average)
8.	Nickel	CPCB Guidelines 1988	ng/m ³	BDL(<4)	20 (Annual average)

BDL- Below Detection Limit

Tested By

Leena Sharma
(Leena Sharma)
Chemist

Authorized Signatory

Manish Bhagora
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

1. Complaint Register is available in lab / Email ID lab.office@wolkem.com
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Page 1 of 1
_ End of Report _

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India

Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941
Our Commitment.. Your Trust

Report No. 20230610022/B

Report Issue Date : - 23.06.2023

TEST REPORT

1. Name of Customer : Tilakhera Limestone Mine,
Mine Lease Area(MLA) - 07/97
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 08.06.2023/11:50AM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 10.06.2023
7. Period of Analysis : 10.06.2023 to 22.06.2023
8. Name of Location : Arnia Joshi Village, Tilakhera
9. Method of Sampling : IS: 5182(Part 11, 12) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	32.7
2.	Relative Humidity	%	49

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

1.	CO	BY CO Meter	mg/m ³	0.29	04 (1 hour)
2.	Benzo(a)pyrene	IS:5182 (Part-12) NAAQS Guideline	ng/m ³	BDL(<0.01)	1 (Annual average)
3.	Arsenic	CPCB Guideline 2011	ng/m ³	BDL(<3)	6 (Annual average)
4.	Benzene	IS:5182 (Part-11) NAAQS Guideline	µg/m ³	BDL(<0.01)	5 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/09:10AM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : Towards Factory Gate (Mangrol Mine)
9. Method of Sampling : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1434.6
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.14
3.	Ambient Temperature	°C	30.2
4.	Relative Humidity	%	42

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	59.04	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	31.07	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	12.60	80
5.	Ozone as O ₃	IS:5182 (Part-9)	µg/m ³	BDL(<20)	100
6.	NH ₃	CPCB manual & 401-Method Air sampling & analysis, 3rd Edition	µg/m ³	20.46	400
7.	Lead	IS:5182 (Part-22)	µg/m ³	BDL(<0.05)	1 (24 hour average)
8.	Nickel	CPCB Guidelines 1988	ng/m ³	BDL(<4)	20 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report





Report No. 20230617002/B

Report Issue Date: - 29.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/09:10AM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : Towards Factory Gate (Mangrol Mine)
9. Method of Sampling : IS: 5182(Part 11, 12) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	30.2
2.	Relative Humidity	%	42

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution - Ambient Air					
1.	CO	BY CO Meter	mg/m ³	0.34	04 (1 hour)
2.	Benzo(a)pyrene	IS:5182 (Part-12) NAAQS Guideline	ng/m ³	BDL(<0.01)	1 (Annual average)
3.	Arsenic	CPCB Guideline 2011	ng/m ³	BDL(<3)	6 (Annual average)
4.	Benzene	IS:5182 (Part-11) NAAQS Guideline	µg/m ³	BDL(<0.01)	5 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



OHSAS
Certificate No
01130126322

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TEST REPORT

1. Name of Customer : Tilakhera Limestone Mine,
Mine Lease Area(MLA) - 07/97
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.09.2023/01:30PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : Arnai Joshi Village, Tilakhera
9. Method of Sampling : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1439.3
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.15
3.	Ambient Temperature	°C	30.1
4.	Relative Humidity	%	40

Results Ambient Air Quality


S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution – Ambient Air

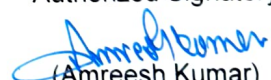
1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	44.68	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	22.60	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL (<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	9.57	80

BDL- Below Detection Limit

Tested By


(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)
Head & Dy. GM
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20230915034/A

Report Issue Date: - 26.09.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.09.2023/01:35PM
4. Sample Identification : Fugitive Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : 3-10 meter distance from drilling point of
Mangrol Mine
9. Method of Sampling : IS: 5182(Part 2, 4, 6) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	483.5
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.115
3.	Ambient Temperature	°C	30.2
4.	Relative Humidity	%	41

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution – Fugitive Emission					
1.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
2.	NO ₂	IS:5182 (Part-6)	µg/m ³	12.0	80
3.	SPM	IS:5182 (Part-4)	µg/m ³	373.31	600

BDL - Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Report No. 20230915034/B

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
4600093211 Dated:- 13.06.2023
2. Purchase Order Number : 12.09.2023/01:35PM
3. Date & Time of Monitoring : Fugitive Sample
4. Sample Identification : Sealed/Ok
5. Condition of Sample : 15.09.2023
6. Sample Received On : 15.09.2023 to 25.09.2023
7. Period of Analysis : 3-10 meter distance from drilling point of
8. Name of Location : Mangrol Mine

9. Method of Sampling

Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	30.2
2.	Relative Humidity	%	41

Results Ambient Air Quality


S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution – Fugitive Emission					
1.	CO	BY CO Meter	mg/m ³	0.35	04 (1 hour)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



Report No. 20230915035/A

Report Issue Date: - 26.09.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 13.09.2023/03:15PM
4. Sample Identification : Fugitive Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : Near Loading point of Mangrol Mine
9. Method of Sampling : IS: 5182(Part 2, 4, 6) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	481.4
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.2
3.	Ambient Temperature	°C	32.6
4.	Relative Humidity	%	43

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution – Fugitive Emission

1.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
2.	NO ₂	IS:5182 (Part-6)	µg/m ³	11.35	80
3.	SPM	IS:5182 (Part-4)	µg/m ³	315.99	600

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



Report No. 20230915035/B

Report Issue Date: - 26.09.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 13.09.2023/03:15PM
4. Sample Identification : Fugitive Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : Near Loading point of Mangrol Mine
9. Method of Sampling : Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	32.6
2.	Relative Humidity	%	43

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution – Fugitive Emission					
1.	CO	BY CO Meter	mg/m ³	0.35	04 (1 hour)

BDL- Below Detection Limit

Tested By

Leena
(Leena Sharma)
Chemist

Authorized Signatory

Amreesh Kumar
(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
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Page 1 of 1

End of Report



TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
4600093211 Dated:- 13.06.2023
2. Purchase Order Number : 12.09.2023/10:05AM
3. Date & Time of Monitoring : Air Sample
4. Sample Identification : Sealed/Ok
5. Condition of Sample : 15.09.2023
6. Sample Received On : 15.09.2023 to 25.09.2023
7. Period of Analysis : Tie Village (Mangrol)
8. Name of Location : IS: 5182(Part 2,6,9,22,23) & Instrument Manual
9. Method of Sampling :

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1436.8
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.175
3.	Ambient Temperature	°C	27.8
4.	Relative Humidity	%	30

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution – Ambient Air					
1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	47.37	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	24.81	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	10.13	80

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20230915036/B

Report Issue Date: - 26.09.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.09.2023/10:05AM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : Tie Village (Mangrol)
9. Method of Sampling : Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	27.8
2.	Relative Humidity	%	30

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution – Ambient Air

1.	CO	BY CO Meter	mg/m ³	0.31	04 (1 hour)
----	----	-------------	-------------------	------	-------------

BDL- Below Detection Limit

Tested By


(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 13.09.2023/12:10PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : Mangrol Village
9. Method of Sampling : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1440.2
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.125
3.	Ambient Temperature	°C	29.9
4.	Relative Humidity	%	38

Results Ambient Air Quality

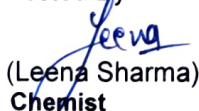
S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution – Ambient Air

1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	45.93	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	23.84	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	10.43	80

BDL- Below Detection Limit

Tested By


(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)
Head & Dy. GM

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Report No. 20230915037/B

Report Issue Date: - 26.09.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 13.09.2023/12:10PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 15.09.2023
7. Period of Analysis : 15.09.2023 to 25.09.2023
8. Name of Location : Mangrol Village
9. Method of Sampling : Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	29.9
2.	Relative Humidity	%	38

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution – Ambient Air					
1.	CO	BY CO Meter	mg/m ³	0.36	04 (1 hour)

BDL- Below Detection Limit

Tested By

Leena
(Leena Sharma)
Chemist

Authorized Signatory

Amreesh Kumar
(Amreesh Kumar)

Head & Dy. GM

Environmental & Chemical Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

__End of Report__

Report No. 20230811021

Report Issue Date: - 22.08.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08 ,
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase order Number : 4600093211 Dated:- 13.06.2023
3. Sample Identification : Potable water
4. Condition of Sample : Sealed/Ok
5. Date & Time of Sampling : 10.08.2023/03:40PM
6. Sample received on : 11.08.2023
7. Period of Analysis : 11.08.2023 to 22.08.2023
8. Name of Sample & Location : Potable & Domestic water
(Mangrol Mine Pit-water Surface water)
9. Method of Sampling : IS:3025 (Pt 1) 1987

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	34.6
2.	Relative Humidity	%	58


S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible

Chemical Testing – Water- Potable Water						
1.	pH (at 27°C)	IS:3025(Part-11)	-	7.84	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025(Part-14)	µs/cm	415.2	-	-
3.	Color	IS:3025(Part-4)	Hazen	<5	5	15
4.	Odour	IS:3025(Part-5)	-	Agreeable	Agreeable	Agreeable
5.	Turbidity	IS:3025(Part-10)	NTU	0.90	1	5
6.	Total Dissolve Solid	IS:3025(Part-16)	mg/L	266	500	2000
7.	Total Suspended Solid	IS:3025(Part-17)	mg/L	BDL(<5)	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Part-21)	mg/L	172	200	600
9.	Calcium as Ca ²⁺	IS:3025(Part-40)	mg/L	44.8	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Part-46)	mg/L	14.4	30	100
11.	Total Alkalinity	IS:3025(Part-23)	mg/L	60	200	600
12.	Chlorides as Cl ⁻	IS:3025(Part-32)	mg/L	36	250	1000
13.	Oil & Grease	IS:3025(Part-39)	mg/L	BDL(<0.4)	-	-
14.	Fluoride as F ⁻	APHA 23rd Ed., 4500 FD	mg/L	BDL(<0.1)	1.0	1.5


Chemical Testing – Residues – Potable water						
15.	Iron as Fe	APHA 23rd Ed.3111B	mg/L	BDL(<0.1)	0.3	No Relaxation

BDL-Below Detection Limit

Tested By


(Manali Vyas)
Asst.Chemist

Authorized Signatory


(Puran Singh)
Sr.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India

Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust

Report No. 20230811023

Report Issue Date: - 22.08.2023

TEST REPORT

1. Name of Customer : M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase order Number : 4600093211 Dated:- 13.06.2023
3. Sample Identification : Waste water
4. Condition of Sample : Sealed/Ok
5. Date & Time of Sampling : 10.08.2023/03:35PM
6. Sample received on : 11.08.2023
7. Period of Analysis : 11.08.2023 to 22.08.2023
8. Name of Sample & Location : Treated waste water source (Mangrol Mines work shop)
9. Method of Sampling : IS:3025 (Pt 1) 1987

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	33.3
2.	Relative Humidity	%	54

S. No.	Parameters	Test Method	Unit	Results	Limits as per Environment Protection rules, 1986
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Chemical Testing– Pollution and Environment - Waste Water


1.	pH (at 27°C)	IS:3025(Part-11)	-	7.01	5.5-9.0
2.	Total Suspended Solid	IS:3025(Part-17)	mg/L	40	100
3.	Oil & Grease	IS:3025(Part-39)	mg/L	4.4	10
4.	B.O.D. 3 days @27°C	IS:3025(Part-44)	mg/L	19.2	30
5.	Chemical Oxygen Demand	IS:3025 (Part-58)	mg/L	125.4	250
6.	Residual Chlorine	IS:3025(Part-26)	mg/L	BDL(<0.01)	1.0
7.	Chlorides as Cl-	IS:3025(Part-32)	mg/L	248	-
8.	Sulphate as SO ₄	APHA 23 rd Ed.4500 SO ₄ E	mg/L	91.7	Not Specified
9.	Phosphate as PO ₄	IS:3025(Part-31)	mg/L	BDL(<0.1)	5.0

Chemical Testing – Residues – Waste water


10.	Copper as Cu	APHA 23rd Ed.3111B	mg/L	BDL(<0.1)	3.0
11.	Zinc	APHA 23rd Ed.3111B	mg/L	0.10	5.0
12.	Iron as Fe	APHA 23rd Ed.3111B	mg/L	0.12	3.0
13.	Total Chromium	APHA 23rd Ed.3111B	mg/L	BDL(<0.02)	2.0

BDL-Below Detection Limit

Tested By


(Manali Vyas)
Asst.Chemist

Authorized Signatory


(Puran Singh)
Sr.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India

Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust



Report No.20230811053

Report Issue Date: - 22.08.2023

TEST REPORT

1. Name of Customer : M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order No. : 4600093211 Dated:- 13.06.2023
3. Sample Identification : Waste water
4. Condition of sample : Sealed/Ok
5. Source/ Location : Treated waste water source (Mangrol Mine Work Colony)
6. Sampling done by : Environmental & Chemical Laboratory, Wolkem India Limited
7. Sample Received on : 11.08.2023
8. Period of Testing : 11.08.2023 to 17.08.2023
9. Environmental conditions : Temp 33.3°C/ RH 54%
10. Sampling method : IS: 1622-1981

S. No.	Parameters	Test Method	Unit	Results	Limits as per Environment Protection rules, 1986
Biological Testing – Water- Waste water					
1.	E.coli	IS 1622:1981	MPN/ 100ml	60	-
2.	Total Coliforms	IS 1622:1981	MPN/ 100ml	170	-

Authorized Signatory



Amreesh Kumar

(Head & Dy. GM)

Microbiology Testing Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

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5. Any discrepancy in test results should be reported within 03 days.

Page 1 of 1

End of Report



TEST REPORT

1. **Name of Customer** : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. **Purchase Order Number** : 4600093211 Dated:- 13.06.2023
3. **Date & Time of Monitoring** : 12.06.2023/10:15AM
4. **Sample Identification** : Air Sample
5. **Condition of Sample** : Sealed/Ok
6. **Sample Received On** : 17.06.2023
7. **Period of Analysis** : 17.06.2023 to 28.06.2023
8. **Name of Location** : Near Ravana Office (Mangrol Mine)
9. **Method of Sampling** : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1433.6
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.135
3.	Ambient Temperature	°C	30.9
4.	Relative Humidity	%	45

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	53.72	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	28.99	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	12.70	80
5.	Ozone as O ₃	IS:5182 (Part-9)	µg/m ³	BDL(<20)	100
6.	NH ₃	CPCB manual & 401-Method Air sampling & analysis, 3rd Edition	µg/m ³	22.93	400
7.	Lead	IS:5182 (Part-22)	µg/m ³	BDL(<0.05)	1 (24 hour average)
8.	Nickel	CPCB Guidelines 1988	ng/m ³	BDL(<4)	20 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust

Report No. 20230617003/B

Report Issue Date: - 29.06.2023

TEST REPORT

1. **Name of Customer** : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. **Purchase Order Number** : 4600093211 Dated:- 13.06.2023
3. **Date & Time of Monitoring** : 12.06.2023/10:15AM
4. **Sample Identification** : Air Sample
5. **Condition of Sample** : Sealed/Ok
6. **Sample Received On** : 17.06.2023
7. **Period of Analysis** : 17.06.2023 to 28.06.2023
8. **Name of Location** : Near Ravana Office (Mangrol Mine)
9. **Method of Sampling** : IS: 5182(Part 11, 12) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	30.9
2.	Relative Humidity	%	45

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution - Ambient Air					
1.	CO	BY CO Meter	mg/m ³	0.32	04 (1 hour)
2.	Benzo(a)pyrene	IS:5182 (Part-12) NAAQS Guideline	ng/m ³	BDL(<0.01)	1 (Annual average)
3.	Arsenic	CPCB Guideline 2011	ng/m ³	BDL(<3)	6 (Annual average)
4.	Benzene	IS:5182 (Part-11) NAAQS Guideline	µg/m ³	BDL(<0.01)	5 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

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Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



OHSAS
Certificate No
01130126322

Our Commitment.. Your Trust



TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/11:25AM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : Tie Village (Mangrol)
9. Method of Sampling : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1438.6
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.145
3.	Ambient Temperature	°C	32.1
4.	Relative Humidity	%	48

Results Ambient Air Quality


S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution - Ambient Air					
1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	51.86	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	28.06	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL (<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	9.89	80
5.	Ozone as O ₃	IS:5182 (Part-9)	µg/m ³	BDL (<20)	100
6.	NH ₃	CPCB manual & 401-Method Air sampling & analysis, 3rd Edition	µg/m ³	BDL (<20)	400
7.	Lead	IS:5182 (Part-22)	µg/m ³	BDL (<0.05)	1 (24 hour average)
8.	Nickel	CPCB Guidelines 1988	ng/m ³	BDL (<4)	20 (Annual average)

BDL- Below Detection Limit

Tested By


(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust

Report No. 20230617004/B

Report Issue Date: - 29.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/11:25AM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : Tie Village (Mangrol)
9. Method of Sampling : IS: 5182(Part 11, 12) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	32.1
2.	Relative Humidity	%	48

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution - Ambient Air					
1.	CO	BY CO Meter	mg/m ³	0.27	04 (1 hour)
2.	Benzo(a)pyrene	IS:5182 (Part-12) NAAQS Guideline	ng/m ³	BDL(<0.01)	1 (Annual average)
3.	Arsenic	CPCB Guideline 2011	ng/m ³	BDL(<3)	6 (Annual average)
4.	Benzene	IS:5182 (Part-11) NAAQS Guideline	µg/m ³	BDL(<0.01)	5 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)

Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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CIN- U29299RJ1971PLC001379


OHSAS
Certificate No.
01130126322

Our Commitment.. Your Trust

TEST REPORT

1. **Name of Customer** : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. **Purchase Order Number** : 4600093211 Dated:- 13.06.2023
3. **Date & Time of Monitoring** : 12.06.2023/12:10PM
4. **Sample Identification** : Air Sample
5. **Condition of Sample** : Sealed/Ok
6. **Sample Received On** : 17.06.2023
7. **Period of Analysis** : 17.06.2023 to 28.06.2023
8. **Name of Location** : Mangrol Village
9. **Method of Sampling** : IS: 5182(Part 2,6,9,22,23) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1437
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.18
3.	Ambient Temperature	°C	33.5
4.	Relative Humidity	%	52

Results Ambient Air Quality

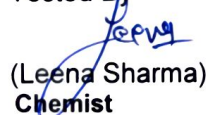
S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

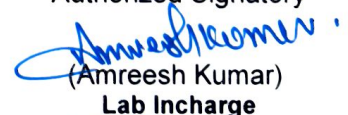
1.	PM ₁₀	IS:5182 (Part-23)	µg/m ³	50.53	100
2.	PM _{2.5}	WIL/SOP No. 10/25 Issue date 01.05.2019	µg/m ³	27.67	60
3.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
4.	NO ₂	IS:5182 (Part-6)	µg/m ³	12.33	80
5.	Ozone as O ₃	IS:5182 (Part-9)	µg/m ³	BDL(<20)	100
6.	NH ₃	CPCB manual & 401-Method Air sampling & analysis, 3rd Edition	µg/m ³	BDL(<20)	400
7.	Lead	IS:5182 (Part-22)	µg/m ³	BDL(<0.05)	1 (24 hour average)
8.	Nickel	CPCB Guidelines 1988	ng/m ³	BDL(<4)	20 (Annual average)

BDL- Below Detection Limit

Tested By


(Leena Sharma)
Chemist

Authorized Signatory


(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust



Report No. 20230617005/B

Report Issue Date: - 29.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/12:10PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : Mangrol Village
9. Method of Sampling : IS: 5182(Part 11, 12) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	33.5
2.	Relative Humidity	%	52

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

1.	CO	BY CO Meter	mg/m ³	0.25	04 (1 hour)
2.	Benzo(a)pyrene	IS:5182 (Part-12) NAAQS Guideline	ng/m ³	BDL(<0.01)	1 (Annual average)
3.	Arsenic	CPCB Guideline 2011	ng/m ³	BDL(<3)	6 (Annual average)
4.	Benzene	IS:5182 (Part-11) NAAQS Guideline	µg/m ³	BDL(<0.01)	5 (Annual average)

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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CIN- U29299RJ1971PLC001379



OHSAS
Certificate No.
01130126322

Our Commitment.. Your Trust

Report No. 20230617006/A

Report Issue Date: - 29.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. - 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District - Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/01:35PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : 3-10 meter distance from drilling point of
Mangrol Mine
9. Method of Sampling : IS: 5182(Part 2, 4, 6) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1438.1
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.145
3.	Ambient Temperature	°C	34.1
4.	Relative Humidity	%	56

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution - Ambient Air					
1.	SO ₂	IS:5182 (Part-2)	µg/m ³	BDL(<6)	80
2.	NO ₂	IS:5182 (Part-6)	µg/m ³	13.18	80
3.	SPM	IS:5182 (Part-4)	µg/m ³	393.57	600

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amresh Kumar)
Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20230617006/B

Report Issue Date: - 29.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/01:35PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : 3-10 meter distance from drilling point of
Mangrol Mine
9. Method of Sampling : Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	34.1
2.	Relative Humidity	%	56

Results Ambient Air Quality

S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air

1.	CO	BY CO Meter	mg/m ³	0.39	04 (1 hour)
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BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)

Lab Incharge

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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CIN- U29299RJ1971PLC001379



Certificate No
01130126322

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Report Issue Date: 23.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbaheera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase order Number : 4600093211 Dated:- 13.06.2023
3. Date of Monitoring : 13.06.2023
4. Sample Identification : Noise Sample
5. Condition of Sample : NA
6. Sample Received On : 17.06.2023
7. Period of Analysis : NA
8. Test Methods Reference : IS: 9989– 1981 (Reaffirmed 2014)

Noise Level Monitoring Results

S. No	Station Point	Report No.	Sound pressure Level dB Day Time		Sound pressure Level dB Night Time	
			Maximum	Minimum	Maximum	Minimum
1.	Towards Factory Gate, Mangrol Mine	20230617007	63.4	58.9	52.6	46.3
2.	Near Ravana Office, Mangrol Mine	20230617008	59.1	52.8	54.7	47.4

CPCB Norms

S. No	Category of area	Day time dB 6.00 AM to 10.00PM	Night Time dB 10.00PM to 6.00am
1.	Industrial area	75.0	70.0
2.	Commercial area	65.0	55.0
3.	Residential area	55.0	45.0
4.	Silence area	50.0	40.0

Tested By

(Leena Sharma)
Chemist

Authorized Signatory

(Amreesh Kumar)
Lab Incharge

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End of Report



Report Issue Date: 23.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase order Number : 4600093211 Dated:- 13.06.2023
3. Date of Monitoring : 13.06.2023
4. Sample Identification : Noise Sample
5. Condition of Sample : NA
6. Sample Received On : 17.06.2023
7. Period of Analysis : NA
8. Test Methods Reference : IS: 9989– 1981 (Reaffirmed 2014)

Noise Level Monitoring Results

S. No	Station Point	Report No.	Sound pressure Level dB Day Time		Sound pressure Level dB Night Time	
			Maximum	Minimum	Maximum	Minimum
1.	Towards Factory Gate, Mangrol Mine	20230617007	63.4	58.9	52.6	46.3
2.	Near Ravana Office, Mangrol Mine	20230617008	59.1	52.8	54.7	47.4

CPCB Norms

S. No	Category of area	Day time dB 6.00 AM to 10.00PM	Night Time dB 10.00PM to 6.00am
1.	Industrial area	75.0	70.0
2.	Commercial area	65.0	55.0
3.	Residential area	55.0	45.0
4.	Silence area	50.0	40.0

Tested By

(Leena Sharma)
Chemist

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(Amreesh Kumar)
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Page 1 of 1
End of Report



Report No. 20230617020/A

Report Issue Date: - 29.06.2023

TEST REPORT

1. Name of Customer : Mangrol Limestone Mine,
ML No. – 26/08
M/s J.K. Cement Works Mangrol,
Tehsil - Nimbaheera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. Purchase Order Number : 4600093211 Dated:- 13.06.2023
3. Date & Time of Monitoring : 12.06.2023/03:25PM
4. Sample Identification : Air Sample
5. Condition of Sample : Sealed/Ok
6. Sample Received On : 17.06.2023
7. Period of Analysis : 17.06.2023 to 28.06.2023
8. Name of Location : Near Loading point of Mangrol Mine
9. Method of Sampling : IS: 5182(Part 2, 4, 6) & Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Duration of Survey	Minutes	1436.9
2.	Average Flow rate for PM ₁₀	M ³ / Min	1.155
3.	Ambient Temperature	°C	36.4
4.	Relative Humidity	%	52

Results Ambient Air Quality


S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Testing - Atmospheric Pollution - Ambient Air					
1.	SO ₂	IS:5182 (Part-2)	µg/m ³	2.02	80
2.	NO ₂	IS:5182 (Part-6)	µg/m ³	11.66	80
3.	SPM	IS:5182 (Part-4)	µg/m ³	325.33	600

BDL- Below Detection Limit

Tested By

(Leena Sharma)
Chemist

Authorized Signatory


(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
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TEST REPORT

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ML No. – 26/08
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Tehsil - Nimbahera, District – Chittorgarh,
State- Rajasthan (INDIA),
2. **Purchase Order Number** : 4600093211 Dated:- 13.06.2023
3. **Date & Time of Monitoring** : 12.06.2023/03:25PM
4. **Sample Identification** : Air Sample
5. **Condition of Sample** : Sealed/Ok
6. **Sample Received On** : 17.06.2023
7. **Period of Analysis** : 17.06.2023 to 28.06.2023
8. **Name of Location** : Near Loading point of Mangrol Mine
9. **Method of Sampling** : Instrument Manual

S. No	Monitoring Details	Unit	Results
1.	Ambient Temperature	°C	36.4
2.	Relative Humidity	%	52

Results Ambient Air Quality

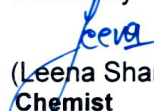
S. No	Parameters	Test Method	Unit	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
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Chemical Testing - Atmospheric Pollution - Ambient Air


1.	CO	BY CO Meter	mg/m ³	0.32	04 (1 hour)
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BDL- Below Detection Limit

Tested By


(Leena Sharma)
Chemist

Authorized Signatory


(Manish Bhagora)
Chemist

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