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J.K. Cement Works, Mangrol C/o. Kailash Nagar-312617, Nimbahera Distt. Chittorgarh (Raj.) INDIA

CIN : L17229UP1994PLC017199 ISO 9001:2015 I ISO 14001:2015 I ISO 45001:2018 I ISO 50001:2018 CERTIFIED COMPANY

MGR/PC-14/C11

By Mail

Date: 29.05.2021

Τo,

The Director(M),

Ministry of Environment, Forests & Climate Change Indira Paryavaran Bhavan, JOR Bagh Road, Near JOR bagh Metro station **New Delhi 110003**

Sub: Environmental Clearance Compliance report of Mangrol-Tilakhera Limestone Mine. (M.L. No. 07/1997, Area 299.20 ha.)

Ref.: EC letter no. - J-11015/25/2011-IA.II (M) dated. 23rd January 2014.

Dear Sir,

Kindly refer to the above subject matter and refer EC letter no., please find attached herewith compliance of EC for the period of **October'2020 to March'2021**. As per MoEF & CC notification no. S.O. 5845 (E) 26.11.2018 the soft copy of same has been sent through email to <u>rocz.lko-mef@nic.in</u>, <u>moef@nic.in</u>, <u>m_env@rediffmail.com</u>, <u>ccb.cpcb@nic.in</u>, <u>member-secretary@rpcb.nic.in</u>, <u>cpcb.bhopal@gmail.com</u> <u>monitoring-ec@nic.in</u>.

We hope that the compliance is in order. Thanking you.

Yours Faithfully For J.K. Cement Works, Mangrol

Anil Kumar Jain Sr. General Manager- Environment

Enclosed: as above

Copy to:

1.The Director, Ministry of Environment, Forests & Climate Change, Regional office (Central Region), Kendriya Bhawan, 5th Floor, Sector 'H', Aliganj, lucknow-226020 (U.P.)

2.The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, Behind Karkarduma high court New Delhi-11032

3.The Member Secretary,_Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, Jaipur - 302004 (RAJASTHAN)

Corporate & Registered Office : Kamla Tower, Kanpur-208001, (U. P.) INDIA Phone : +91-512-2371478 to 81 Fax : 2399854 E-mail : ho.grey@jkcement.com



J. K. Cement Works, Nimbahera J. K. Cement Works Mangrol J. K. Cement Works, Gotan J. K. Cement Works, Jharli J. K. Power, Bamania J. K. Cement Works, Muddapur J. K. White Cement Works, Gotan

J. K. White, Katni





JKCement LTD.

HALF YEARLY COMPLIANCE REPORT

CEM.

OF

ENVIRONMENTAL CLEARANCE LETTER NO.

11015/25/ 2011 - IA. II (M) dated 23.01.2014

Period: October-2020 to March-2021

For Mangrol-Tilakhera Limestone Mine: 1.6 MMTPA

Submitted to:

MoEF& CC, New Delhi & Central Regional Office, Lucknow (UP) Central Pollution Control Board, New Delhi & Bhopal Rajasthan State Pollution Control Board, Jaipur

> Submitted by: M/s J.K.CEMENT WORKS, MANGROL, Vill. Mangrol, Tehsil: Nimbahera, District: Chittorgarh (Raj)

> > JK SUPER CEMENT BUILD SAFE

PROPONENT	J.K. CEMENT WORKS, MANGROL (RAJ.)	
Project	Expansion of Mangrol-Tilakhera Lime Stone Mine (M.L. No. 07/1997, Area 299.20 ha., Limestone 0.6 MMTPA to 1.6 MMTPA, villages- Mangrol & Tilakhera, Tehsil-Nimbahera, District-Chittorgarh, Rajasthan.	$D_{1} = \frac{1}{2} + \frac{1}{2$
<i>Environment Cl</i> 23.01.2014	earance issued from MOEF, New Delhi vide Letter No. J-11015/25/2011 – IA. II (M) dated	

S. No.	Detail of Conditions	Compliance Status
Specifi	ic Conditions	
(i)	The mining activity will not commence unless the NOC from the Gram Panchayat for grazing land has been obtained.	Complying with. Mining Lease was initially executed on 09.05.1978 and it was renewed (First renewal) from 09.05.1998. NOC from the Gram Panchayat will be obtained before the start of mining activities in that area. However, the acquiring is under process. Till date no grazing land was required for any mining activities.
(ii)	The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners asper the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.	Complying with. The Permission from the Rajasthan Government (Jamabandi) had been obtained to carry out mining as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.
(iii)	Implementation of the Conservation Plan for Schedule I species reported in the Study area namely <i>Pavo cristatus</i> (Indian peafowl)	Complying with. The Wildlife conservation plan has been prepared for six nos. of the followingSchedule-I species found in the buffer area during the survey: - (a.) <i>Pavocristatus</i> (Indian Peafowl), (b.) <i>Pantherapadusfusca</i> (Indian Leopard), (c.) <i>Prionailurusrubiginosus</i> (Rusty-Spotted Cat),(d.) <i>Canis</i>

	The proponent shell ongure	(e.) <i>indu</i> Com Udai form 21/ 15.10	Varanu icus/Gyp ibined W ipur and bal sancti 5002 da 0.2020 b	vildlife Conservation recommendations ion vide letter no. ited 24.09.2020 a	an Monitor Lizard) & (f.) <i>Gyps</i> lian Vulture) on Plan has been approved by the Principal C forwarded to Additional Chief Conservator F 5() forest conservation/ Principal conserv nd same proposal has been forwarded to After approval of APCCF conservation plan v	of Forest Jaipur for vator of Forest/2020- APCCF, Jaipur on
(vi) The proponent shall ensure implementation of Action Plan on the issues raised during the Public Hearing held on 20.12.2012. The proponent shall complete	Statu		plementation of a 2 for Mangrol-Til Category	ction plan on the issue raised during the H akhera Mine.	Publichearing held Expenditure	
	all the tasks as per the action plan					Rs. in Lakhs)
	submitted with the budgetary provisions during the public hearing.		1.	Education facilities	Furniture for School, Construction of rooms & boundary wall at school, water proofing, Adoption of schools, construction of building & Anganwadi centre & boundary wall -Completed	12.80
			2.	Medical & Health facilities	Construction of rooms for Hospitals, Medical camp for locals & nearby villages- Completed	23.18
			3.	Infrastructure – Road Construction	Construction of Concreate Cement (C.C.) road, Construction of slab/ gitti road - Completed	81.02
					Total	117.0
(v)	The proponent shall ensure implementation of commitment made for Socio economic welfare measures and report shall be submitted to the	The		conomic welfare	activities are being implemented by J.K. C nt in various CSR activities like comm	

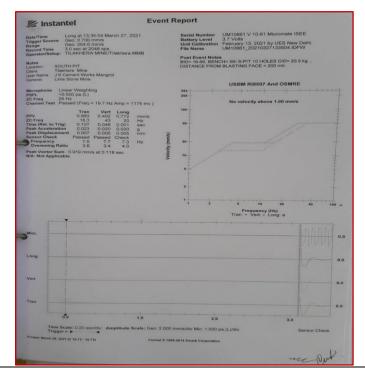
	Ministry of Environment & Forests and its RegionalOffice located at Lucknow on six monthly basis.	programmes, education programmes, drinking water supply and health care etc.in FY 2020-2021.
(vi)	Sufficient number of Gullies should be provided for better management of water. Regular Monitoring of PH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on six monthly basis.	Complied with. The garland drain has been constructed in the east of the subgrade dump tochannelize the rainwater. EC Compliance Report has been submitted to the Ministry of Environment &Forests and its Regional Office at Lucknow vide letter no. MGR/PC-14/C11 Dated 26.11.2020.
(vii)	Environment Clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.	Agreed, There is no Wildlife Sanctuary, National Park, within 10 Km periphery of the lease area. The same has been authenticated by Deputy Conservator of forest Chittorgarh vide letter no. AF () survey /UVS/2020-21/6048 dated 23.09.2020.
(viii)	No mining activities will be allowed in forest area, if applicable, for which the Forest Clearance is not available.	Agreed, There is no forest land involved in the lease area. The same has been authenticated by Deputy Conservator of forest Chittorgarh vide letter no. AF ()survey/UVS/2020-21/6048 dated 23.09.2020.
(ix)	The project proponent shall obtain Consent to Operate from the State Pollution Control Board, Rajasthan and effectively implement all the conditions stipulated therein.	Complied with. The Consent to Operate and its renewal has been obtained time to time as per the procedure from Rajasthan State Pollution Control Board and all the conditions laid down in Consent to Operate has been implemented. The latest Consent to Operate has been obtained under Air & Water act for upgraded production Capacity-Limestone- 1.6 MMTPA vide letter no. F(Mines)/ Chittorgarh(Nimbahera) /1868(1)/2017-2018/2126-2130, dated 26.06.2017 valid till 31/05/2022.

(x)	The mining operations shall be restricted to above groundwater table and it shall not be intersect ground water table. For	Complying with. The detail of the elevation, ground water table and working level is given below:-				
	working below groundwater table, prior	S. No.	Particulars	Levels (MSL)	BGL (m)	
	approval of the Ministry of Environment	1.	Highest Elevation	446		
	and Forests and Central Ground Water	2.	Lowest Elevation	454		
	Authority shall be obtained, for which a	3.	General Ground Level	430		
	detailed hydro- geological study shall be	4.	Water Table (Pre-Monsoon)	395-390	35-40	
	carried out.	5.	Water Table (Post-Monsoon)	409-397	21-33	
	carried out.	6.	Ultimate Pit Limit	374	56	
		7.	Present working depth pit 1	390	40	
		8.	Present working depth pit 2	390	40	
(xi)	(xi) Dimension of the retaining wall at the toe of overburden dumps and OB	Source: - As per approved Modified Mining Plan with PMCP dated 03.01.2019.Water table will be intersected in mining plan period 2022-23.CGWA permission for the mine seepage on account of mining intersecting the water table has been obtained from the Office of Central Ground Water Authority, Ministry of Water Resources, River Development & Ganga Rejuvenation vide letter No 21-4(34)/WR/CGWA/2005- 907 Dated 14/05/2018 and amended dated 28/05/2018. Renewal of NOC has been applied on 12.02.2020.Complied with.				
	benches within themine to check run-off and siltation shall be based on the rainfall data	been constructed. Details are given below: -				
			d Drain	Dimensions		
		East of	f Subgrade and wastedump	Length – 1015m Width – 1.0 m Deptl	h 1.0 m	
		Total available rainwater in single day (considering maximum 50 mm rainfall) 1. Subgrade dump & waste dump (area) X rainfall (m) X Runoff coefficient (20%)				

		of silta Total n three s	ation pond s rain water c iltation pit	5 M X 0.20 = 2180.3 M should be 4360.6 m ³ . collection capacity of with dimension as giv Length Wid (M) (M) 19 18 22 20	siltation pit requiven below: - th Dep (M 3	hires = 4 th	-360.6 m3Con Capac		capacity	
			3.	27 25				025		
				Total			43			
		The st	orm water i	s being collected to g	arland drain fror	n the pe	riphery of the	subgrade	e and the	
			dump area	routed to siltation po	nd. The collected	l water i	is being used f	or planta	tion and	
		water	sprinkling o	on haul road.						
(xii)	Blasting operation shall be carried out	Complying with.								
	only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of	(SBM)	Blasting operation is being carried out in day time only. Use of Sequential blasting machine (SBM), Delay detonator, Non-Electric detonator for blasting andto mitigate vibration. Vibration monitoring data of period Oct-20 to Mar-21 mention below:							
	ground vibrations and to arrest fly rocks and boulders should be implemented. Drills shall either be	S.NO	DATE	LOCATON OF BLASTING	APPROX . DIST.OF INSTRUMENT FROM BLAST	NO OF HOLES	MAX.CHARGE PER DELAY (KGS.)	PPV MM/SEC	Safe ppv level (mm/sec)	
	operated with dust extractors or	1	10.10.2020	BENCH=IE,BID=1634	300M FROM FACE	10	29.4	1.348	10	
	equipped with water injection system.	2	22.10.2020	BENCH=IE,BID=0021	250M FROM FACE	15	26.6	2.8	10	
	Advanced technologies for	3	10.11.2020	BENCH=III,BID=5-27	300M FROM FACE	4	25	1.649	10	
	environmental protection to be used	4	27.11.2020	BENCH=IIIE, BID=06-29	300M FROM FACE	18	34.7	3.178	10	
	for controlled blasting.	5	03.12.2020	BENCH=IE, BID=17-24	250M FROM FACE	8	28.8	2.575	10	
		6	12.12.2020	BENCH=IIIE, BID=06-30	250M FROM FACE	12	27.5	3.456	10	
		8	10.01.2021	BENCH=IIE,BID=1432	250M FROM FACE	11	25.4	1.486	10	
		9	12.01.2021	BENCH=IIE,BID=1434	150M FROM FACE	14	28.78	2.047	10	
		10	18.01.2021	BENCH=V,BID=15-26	150M FROM FACE	16	9.72	0.822	10	

11	22.01.2021	BENCH=V, BID=14-36	300M FROM FACE	16	9.72	1.146	10
12	05.02.2021	BENCH=IIE,BID=1530	150M FROM FACE	10	30	2.884	10
13	09.02.2021	BENCH=IE,BID=15-31	150M FROM FACE	11	29.54	2.04	10
14	25.02.2021	BENCH=IE, BID=16-49	300M FROM FACE	8	24.31	0.909	10
15	27.02.2021	BENCH=IE,BID=14-43	300M FROM FACE	11	22.72	0.904	10
16	02.03.2021	BENCH=IVS,BID=17-33	250M FROM FACE	6	22.23	3.484	10
17	12.03.2021	BENCH=IVS,BID=17-34	200M FROM FACE	6	23.15	3.34	10
18	22.03.2021	BENCH=IIE,BID=16-57	250M FROM FACE	10	24.05	1.85	10
19	27.03.2021	BENCH=VS,BID=16-60	200M FROM FACE	10	20.5	0.919	10

Vibration monitoring report

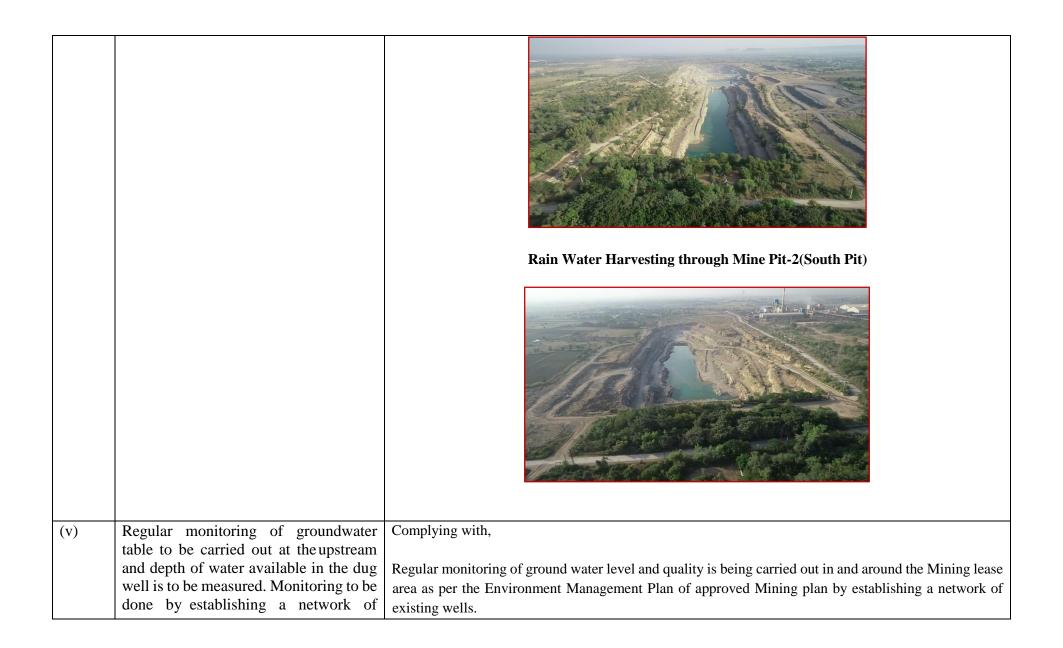


(xiii)	Water sprinkling shouldbe increased at places loading and unloading points & transfer point to reduce fugitive emissions.	Regular water spraying arrangement on haul roads and on blast material before loading is					
(xiv)	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and groundwater for the project.	Complied with. NOC has been obtained from the Office of Central Ground Water Authority, Ministry of Water Resources, River Development & Ganga Rejuvenation vide letter No 21- 4(34)/WR/CGWA/2005-907 Dated 14/05/2018 and amended dated 28/05/2018. Renewal of NOC has been applied on 12.02.2020.					
(xv)	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 covered	ept Complying with. red. Tippers engaged in the mine are regularly checked once in six months for vehice for are kept under permissible limits as per the guidelines issued by the Authoritie not being loaded above the rated capacity.					
	dumpers and further leading to the	Sr. N		Mfg. Year	PUCC No.	Validate Upto	
	plant through covered conveyor belt.		RJ09-GC-0028 RJ09-GC-0128	2018	D3RJ50119214	12.06.2021	
	The vehicles carrying the mineral	2	RJ09-GC-0128 RJ09-GC-0228	2017 2017	D3RJ50119215 D3RJ50119216	12.06.2021 12.06.2021	
	shall not be overloaded.	4	RJ09-GC-0228	2017	D3RJ50119210	12.06.2021	
		5	RJ09-GC-9152	2020	D3RJ50119222	12.06.2021	
1		6	RJ09-GC-9155	2020	D3RJ50119218	12.06.2021	

	7	RJ09-GC-9156	2020	D3RJ50119220	12.06.2021
	8	RJ09-GC-9198	2020	D3RJ50119219	12.06.2021
	9	RJ09-GB-9928	2017	D3RJ50119313	14.06.2021
	10	RJ09-GB-1928	2015	D3RJ50119217	12.06.2021
	11	RJ09-GB-2528	2015	D3RJ50119204	12.06.2021
	12	RJ09-GB-2728	2015	D3RJ50119205	12.06.2021
	13	RJ09-GB-2828	2015	D3RJ50119206	12.06.2021
	14	RJ09-GB-5028	2016	D3RJ50119211	12.06.2021
	15	RJ09-GB-5828	2016	D3RJ50119212	12.06.2021
	16	RJ09-GB-5928	2016	D3RJ50119213	12.06.2021
	17	RJ09-GB-7828	2014	D3RJ50119208	12.06.2021
	18	RJ09-GB-8328	2014	D3RJ50119207	12.06.2021
	19	RJ09-GB-8628	2014	D3RJ50119209	12.06.2021
	20	RJ09-GB-8928	2015	D3RJ50119210	12.06.2021
	21	RJ09-GB-8428	2014	D3RJ50119223	12.06.2021
	22	RJ09-GB-8528	2014	D3RJ50119224	12.06.2021
	23	RJ09-GB-4828	2015	D3RJ50119226	12.06.2021
			ar of Ragn i 08401767 ar of Ragn i 08401767 i So 20.202 18-02.202 ake i 178-02.202 ake i 18-02.202 ake i 13-12.202 ima i 094-07.03 AA ald upro i 13-26-202 antex Levy i 094-07.03 AA antex Kawati 094-07.03 AA antex Kawati 094-07.03 AA antex Kawati 09-07.03 AA antex Rawati 09-07.03 AA Flushing Cycle Avg RPM Min RPM Max Avg RPM Min Max 606 2.5 Sa0 1984 0.614 1.5 Sa0 1903 0.519 2.3 Sa0 1944 0.476 3.580 1944 0.476 Avgasthan 0.536 Get Certific Seal of Texting Station Min and Na Rayathan Wein Reg No: R0805015215 PUC No: R325012015	B VALDE IN B Freedback Comparing Freedback<	Lights Henryldg ymbon com Henryldg 1.62 55 1.62 50 0.7 / 1.5 26 / Bharat Stage III or Stage IV/VI vehice stage III or throrised Signat HIGATE UPCATE 900 1812011021 100
			Scan QR Code to Validate	Valid up to : 12 Scan QR Code to	2-06-2021

Fugitive dust emissions from all the	Complied with.			
sources shall be controlled regularly.	Regular water spraying arrangement on hau	l roads and on blast material before loading & dense		
Water spraying arrangement on haul	green belt development is practices to control of fugitive emission.			
	Along with fugitive emission monitoring car	ried out regularly.		
, 6				
1 1				
Pre-placement medical examination	Complying with.			
and periodical medical examination of	Pre placement Initial medical examination	of the workers engaged is carried out regularly and		
the workers engaged in the project shall		amination will be drawn in such a manner that every		
be carried out and recordsmaintained.				
For the purpose, schedule of health	•			
examination of the workers should be				
drawn and followed accordingly.	Particular	Medical Exam. Carried out (in Nos.)		
	No. of persons examined	9		
1		6		
e e		3		
		NA		
,				
		amination under rule 29 B		
	a the second	Issued in triplicate **)		
	cartified that shri KALU RAM MEENA 5/0 MJ	NULAL IN SUPPRIVISOR IN THA KHERA LIME STONE MINES,		
	Form ANO. 160 Has been examined for an initial / periodic	I medical examination. He appears to be 33 years of age.		
	The findings of the examining authority are g	en in the attached sheet. It is considered that \neg		
	(a) * is medically fit for any employment in m	nes, V 1 is medically unfit for – V		
	(i) July controls	nd, or		
	(iii) Any employment or work	his disability cured / controlled * and should be again examined		
	within a period ofmonths. He will a and the opinion of	opear for re- examination with the result of tex or		
	Specialist from	hitted / not permitted * to carry on his duties during this period		
		stenature of the examining		
		Authority Dz. S. E. CHAUSTRAWY Authority C.M.O.		
		Res. No. 21732 Name and designation in Block letters.		
		use of the certificate shall be handed over to the period concerned and another		
	*Opdete whatever is no solutional ** One s copy shall be shall be sent to the manager the examising authority.	py of the contribute that be handed over to the pin and over your part of the mine concerned by registered point; and the third copy shall be resumed by Page 1 of 6		
	Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained. 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.	sources shall be controlled regularly. Water spraying arrangement on hau roads, loading and unloading and at transfer points should be provided and properly maintained. Pre-placement medical examination of the workers engaged in the project shall be carried out and recordsmaintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. Occupational health and safety measures for workers who are having some ailments like BP,diabetes or are habitual smokers, should have health checkup once in six months.		

(xviii)	Environmental clearance is granted subject to final outcome of Hon"ble High Court of Rajasthan and any other Court of Law, as maybe applicable to this project.	Noted and will be complied
	ERAL CONDITIONS	
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Complying with. Mining is being done in accordance with Approved Modified Mining Plan.
(ii)	No change in the calendar plan including excavation, quantum of limestone mineral and waste should be made.	Complying with. Mining is being done in accordance with Approved Modified Mining Plan.
(iii)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Will be complied. Presently it is a working mine and will expire on 31.03.2030 and final closure plan will be submitted due course of time.
(iv)	There shall be planning, developing and implementing facility of rainwater harvestingmeasures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment groundwater resources in the area in consultation with Central Ground Water Board.	Complied with. To augment the water resources, rain water harvesting is done through mine pit water stored in lower most benches and one recharge well. Rain Water Harvesting through Mine Pit-1(North Pit)



	existing wells and constructing new piezometers.	We have installed 4 Nos. of piezometer holes for periodic & o with telemetry system for online monitoring of ground water le Screen shot of DWLR live data	
		🍕 GLens 🗙 🕇 Thermofisher x 🛆 Sustainability Platform x 🔮 Whatsa	App × @ CII × +
		\leftrightarrow \rightarrow \mathbf{C} $\ $ $\ $ $\ $ sustainability.logicladder.com/dashboard/recent/tree	
		Water Level (Telemetry BW 3 (Akirpura Mine)/Telemetry BW	
		Telemetry BW_4 (Tilakhera Mine)	
		few seconds ago	
		40.38 _m	
		Water Level (Telemetry BW 4 (Tilakhera Minel)/Telemetry BW	
		Telemetry BW_6 (Mangrol Plant)	
		1 min ago 🗠	
		62.02 m	
		Water Level (Telemetry BW 4 (Manarol Plant)/Telemetry BW	
		2021 © LogicLadder Technologies Private Limited Terms of	Service Privacy 🜑 May 28, 2021
(The project proponent shall ensure that	Complying with.	
(vi)	no natural water course and/or water resourcesshall be obstructed due to any mining operations.	No natural water course/ water resources are obstructed d	ue to any mining operation.
(vii)	The top soil, if any, shall temporarily	Complied with.	
	be stored atearmarked site(s) onlyand	The top soil is being used for the plantation purpose.	
	it should not be kept unutilized for	The top som is come used for the planation purpose.	
	long. The topsoil shall be used forland	No of Overburden Dump and No of sub grade stack	mineral Height and
	reclamation and plantation. The overburden (OB) generated during	total quantity generated at present (31.03.2021) total quantity generated present (31.03.2021)	
	themining operations shall be stacked	No 03 No 02	45 degree
	at earmarked dump site(s) only and it	Quantity : 61,978.00 Tons Quantity : 8,92,562	2.00 OB Dump – 3.7-
	should not be kept active for a long		5.98m.

	period of time. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface runoff. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated areashall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self- sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on six monthly basis.		orage in 52.879 Ha. No backfilling is proposed. and geo textile will be done after the dump are
(viii)	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, greenbelt developmentetc. The drains shall be regularly desilted particularly after monsoon and maintained	Complied with. Catch drains/ Garland drain to collect wat follows: Location Garland drain (east of Sub grade stack and waste dump) Total available rainwater in single day (const	ter and siltation ponds are in placedetails are as Drain size 38.539 Ha sidering 100 mm rainfall)

	properly. The drains, settling tanks	1. Subgrade dum	np & waste dump	(area) X rainfall (m)X Runoff coeffi	cient (04%)		
	and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and overburden dumps to prevent	$\begin{array}{ll} 218030 \ \text{M}^2 \ \text{X} \ 0.10 \ \text{M} \ \text{X} \ .04 = 872.12 \ \text{M}^3 \ \text{and considering} \ 50\% \ \text{safety margin thentotal} \\ \text{capacity of siltation pond should be} \ 1744.24 \ \text{m}^3. \\ \text{Total rain water collection capacity of siltation pit requires} = 1744.24 \ \text{m}^3 \text{Constructed three} \end{array}$						
	runoff of water and flow of sediments directly into the river and other water	siltation pit with o	dimension as give	n below: -				
	bodies and sump capacity should be	Sr.	Length	Width	Depth	Capacity		
	designed keeping 50% safety margin	No.	(M)	(M)	(M)	M3)		
	over and above peak sudden rainfall	1	18	17	3	918		
	(based on 50 years data) and	2	17	17	3	867		
	maximum discharge in the area		То	tal		1785		
	adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be	side of sub grade	dump from the	periphery of the p	oit area and the was	ed around east and south ste dump area routed to vater sprinkling on haul		
(ix)	constructed at the corners of the garland drains and desilted at regular intervals. Plantation shall be raise in a 7.5m wide	Complying with,						

		Photographs of Dense green belt development
(x)	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain.	There is no seasonal nala falls within mines area.
(xi)	Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the	Complying with, There is no water bodies within the lease area, however regular monitoring of ground and surface water quality has been carried out & report submitted at concern offices.

	Ministry of Environment and Forests, its Regional Office, Lucknow, Central Groundwater Authority, Regional Director, Central Groundwater Board, State Pollution Control Board and Central Pollution Control Board.	
(xii)	Regular monitoring of ground water	Complying with,
	level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new peizometers during the mining operation. The monitoring shall be carried out four times in a year pre-monsoon (April- May), monsoon (August), post- monsoon (November) and winter (January) and the data thus collected maybe sent regularly to Ministry of Environment and Forests, and its Regional Office, Lucknow, Central Ground Water Authority and Regional Director,, Central Ground Water Board.	 Regular monitoring of ground water level and quality is being carried out in and around the Mining lease area as per the Environment Management Plan of approved Mining plan by establishing a network of existing wells. We have installed 4 Nos. of piezometer holes for periodic & one DWLR (Digital water level Recorder) with telemetry system for online monitoring of ground water level. Latest ground water level and quality report is being submitted vide letter no. MGR/PC/14/C11/658, Dated 08.02.2021to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board. Copy enclosed as Annexure-II
(xiii)	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely leopard, elephant, etc. spotted 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	Complying with. The Wildlife conservation plan has been prepared for six nos. of the following Schedule-I species found in the buffer area during the survey: - (a.) <i>Pavocristatus</i> (Indian Peafowl), (b.) <i>Pantherapadusfusca</i> (Indian Leopard), (c.) <i>Prionailurusrubiginosus</i> (Rusty-Spotted Cat),(d.) <i>Canis</i> <i>lupus pallipes</i> (Indian Wolf), (e.) <i>Varanusbengalensis</i> (Indian Monitor Lizard) & (f.) <i>Gyps</i>

	implementation of the concernation plan	indiana (Cuna bangalansis (Indian) (ultura)
	implementation of the conservation plan	indicus/Gyps bengalensis (Indian Vulture)
	shall be made and the funds so allocated	
	shall be included in the project cost. All	Combined Wildlife Conservation Plan has been approved by the Principal Conservator of Forest,
	the safeguard measures brought out in	Udaipur and recommendations forwarded to Additional Chief Conservator of Forest Jaipur for
	the Wildlife Conservation Plan so	formal sanction vide letter no. F 5() forest conservation/ Principal conservator of Forest/2020-
	prepared specific to the project site shall	21/ 5002 dated 24.09.2020 and same proposal has been forwarded to APCCF, Jaipur on
	be effectively implemented. A copy of	15.10.2020 by DYCF, Jaipur. After approval of APCCF conservation plan will be implemented.
	action plan shall be submitted to the	
	Ministry of Environment and Forests	
	and its Regional Office, Lucknow.	
(xiv)	Provision shall be made for the housing	No construction labours are engaged in Mine.
	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 maybe in the	
	form of temporary structures to be	
	removed	
	after the completion of the project	
(xv)	Monitoring of Ambient Air Quality	Complied with.
()	shall be carried out based on the	r
	Notification, as amended from time to	Ambient air quality monitoring report of core & buffer zone by NABL accredited lab enclosed
	time by the Central Pollution Control	
	Board.	as Annexure-III.
	Dualu.	

(xvi)	The critical parameters such as SPM RSPM, (Particulate matter with size						Complying with.												
	less than 10 micron i.e., PM10), NOx in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habittation, whichever is closer shall be monitored periodically			Amt	Ambient Air Quality Monitoring data (µg/m³) of Period Oct-20 to Mar-21 mention below table:									ble:					
	Near Mine Office			ice			Near Ray	vana O	ffice				Distance F Deration	rom	Near loading point				
	Month	PM10	PM 2.5	SO ₂	NOx	со	PM10	PM 2.5	SO ₂	NOx	со	SPM	SO ₂	NOx	со	SPM	SO ₂	NOx	со
	Oct-20	43.3	31.6	11.0	21.4	561	50.4	39.3	12.8	22.7	596	381	14.9	22.9	538	371	13.5	23.7	653
	Nov-20	52.4	40.3	13.4	25.7	773	69.7	36.5	18.0	25.0	808	429	19.2	27.4	567	377	16.5	28.7	876
	Dec-20	66.2	42.2	16.5	24.6	636	77.5	49.0	15.6	25.2	773	442	18.5	26.7	699	390	18.1	27.9	905
	Jan-21	40.7	33.1	12.0	24.4	550	53.3	32.8	16.1	24.0	739	417	18.2	26.1	745	370	14.7	27.4	670
	Feb-21	42.5	38.5	14.8	25.7	613	50.6	31.4	17.6	26.5	699	424	20.4	29.4	785	387	16.2	28.5	705
	Mar-21 AVERAGE	48.7 48.9	34.4 36.7	12.7 13.4	23.1 24.1	767 650	51.6 58.9	30.5 36.6	13.0 15.5	23.8 24.5	842 743	370 411	14.8 17.7	24.9 26.2	816 692	361 376	13.8 15.5	23.6 26.6	802 768
(xvii)				Reg spe etc.	Complied with. Regular maintenance (including cabin) of HEMMbeing done to keep noise level within the specified limits. Ear plugs have been provided to Workers engaged in operation of HEMM etc. Ambient noise level data (in Db) of period Oct-20 to Mar-21 mention below Table:							MM							
		-	-				Month			Near	Mines	s Gate			Near Ravana Office				
							WIOHU		DA			NIGHT		DA	Y		NIG	HT	
							Oct-20		59.			53.0		66.			58		
							Nov-20		58.			52.6		65.			57		
							Dec-20		59.			53.4		66.			56		
							Jan-21 Feb-21		<u> </u>			51.7 55.2		67. 63.			55 62		
							Mar-2		<u> </u>			55.2		63.		-	62		
						Δm					l ng rer	ort carri	ed out			redited	-		d as

		Annexure-IV.
(xviii)	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 19 th May, 1993 and 31 st December, 1993 or as amended from time to time.Oil and grease trap should be installed before discharge of workshop effluents.	Agreed. No industrial waste water is generated in the Mine
(xix.)	Personal working in dusty areas should wear protective respiratory devices and they should also be provided and adequate training and information on safety and health aspects	Complied with. Dust mask has been provided to persons engaged in drilling, dozing and loading. VT is being provided as required under MVT rules 1966. Regular periodic check-up of workers is being carried out.
(xx.)	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. 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 with. Agreed, Protective respiratory devices are provided to every personal working in dusty area. Training and information on safety and health aspects is imparted. Occupational health surveillance program of the workers is being undertaken periodically. Environment awareness program have conducted time to time in plant, mines& near villages Health, Safety, Environment related awareness display, displayed at mine, plant & near villages.

		Environment Awareness Rally by J.K.ITI
		Image: Solution of the second seco
		In the online of the online
(xxi.)	A separate environmental management	Complied with.
	cell with suitable qualified personnel	A separate environmental management cell withqualified personnel is already established &
	should be set-up under the control of a	hassufficient monitoring equipment in environmental laboratory.

	senior Executive, who will report directly to the Head of the Organization.			
(xxii)	The funds earmarked for environmental	Complying	g with.	
	protection measures should be kept in	A separate	fund is kept for environment protection meas	ures and report is being sent regularly
	separate account and should not be	-	cerned authority.	
	diverted for other purpose. Year wise		nment protection measures expenditure made d	luring EV 2020-21 was 69 59 lacs
	expenditure should be reported to the		e mention table:	aring 1 1 2020-21 was 09.59 facs.
	Ministry and its regional Office located			Recurring Cost per Annum
	at Lucknow.	S. No.	Activity	(Rs. In lacs)
		1.	Pollution control expenses (Others)	0.697
		2.	Pollution control expenses (Statutory)	3.193
		3.	Gardening Expenses	10.5
		4.	CSR Expenses	55.1977
			Total (Rs.)	69.59
(xxiii)	The project authorities should inform	Complied.		
	to the Regional Office located at	1		
	Lucknow regarding date of financial			
	closure and final approval of the			
	project by the concerned authorities			
	and the date of start of land			
	development work.			
(xxiv)	The Regional Office of this	Noted &	full cooperation is /will be extended to the	officer (s) of the Regional Office by
	Ministry located at Lucknow shall	furnishing	the requisite data/information/monitoring repo	rts will be given.
	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			
(xxv)	The project proponent shall submit six	Complying	g with.	
. /	monthly reports on the status of the		-	

	environmental safeguard to the	Six monthly reports are being submitted to all concern offices as given in clearance letter. Latest
	Ministry of Environment and Forests,	
	its Regional Office ,Lucknow , Central	Six Monthly Monitoring report sent to RO & HO, MoEF&CC Lucknow, vide letter no. MGR/PC-14/C11, dated 26.11.2020.
	Pollution Control Board.	MGR/PC-14/C11, dated 20.11.2020.
(xxvi)	A copy of clearance letter will be	Complied.
	marked to concerned Panchayat / local	
	NGO, if any, from whom suggestion /	
	representation has been received while	
	processing the proposal.	
(xxvii)	State Pollution Control Board should	Complied.
	display a copyof the clearance letter at	
	the Regional office, District Industry	
	Centre and Collector's office/	
	Tehsildar's Office for 30 days.	
(xxviii)	The project authorities should	Implemented & the necessary information alreadysent to the concerned authority
	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 web site of the Ministry of	
	Environment and Forest at http://	
	envfor.nic.in and a copy of the same	
	should be forwarded to the Regional	
	Office of this Ministry located	
	Lucknow.	

Mitra S.K. Private Limited ANNEXURE-I

Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

T: 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com

TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/1729Date: 07.01.2021Sample No. : MSKGL/ED/2020-21/12/01659Sample Description : Fugitive AirSampling Location : 3-10 Meter Distance from DrillingOperation (Tilakhera Mine)Date of Sampling : 12.12.2020

Reference No.& Date : e-mail dtd: 23.04.2019

SL. N0.	Pollutants	Result	Method of Test Refference
1	Suspended Particulate Matter (SPM) in µg/m3	345	IS 5182 (Part-4) - 1999
2	Sulphur dioxide(SO2) in µg/m ³	9.1	IS: 5182 (Part-2)-2001
3	Nitrogen dioxide (NOx) in µg/m ³	30.9	IS: 5182 (Part- 6)-2006
4	Carbon monoxide(CO) in mg/m ³	0.56	IS 5182 :(Part-10) :1999

For Mitra (Author onato



Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

T: 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com



TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/1730Date: 07.01.2021Sample No. : MSKGL/ED/2020-21/12/01660Sample Description : Fugitive AirSampling Location : Near Loading Point (Tilakhera Mine)Date of Sampling : 12.12.2020

Reference No.& Date : e-mail dtd: 23.04.2019

SL. NO	Pollutants	Result	Method of Test Refference
1	Suspended Particulate Matter (SPM) in µg/m3	342	IS 5182 (Part-4) - 1999
2	Sulphur dioxide(SO2) in µg/m ³	11.2	IS: 5182 (Part-2)-2001
3	Nitrogen dioxide (NOx) in $\mu g/m^3$	28.5	IS: 5182 (Part- 6)-2006
4	Carbon monoxide(CO) in mg/m ³	0.62	IS 5182 :(Part-10) :1999

For Mit

Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

T: 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com



TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.) Report No. : MSK/UDR/2020-21/2155 Date : 19.03.2021 Sample No. : MSKGL/ED/2020-21/03/00181 Sample Description : Fugitive Air Sampling Location : 3-10 Meter Distance from Drilling Operation (Tilakhera Mine) Date of Sampling : 13.02.2021

Reference No.& Date : e-mail dtd: 23.04.2019

SL. N0.	Pollutants	Result	Method of Test Refference
1	Suspended Particulate Matter (SPM) in µg/m3	355	IS 5182 (Part-4) - 1999
2	Sulphur dioxide(SO2) in µg/m ³	10.0	IS: 5182 (Part-2)-2001
3	Nitrogen dioxide (NOx) in µg/m ³	18.0	IS: 5182 (Part- 6)-2006
4	Carbon monoxide(CO) in mg/m ³	0.66	IS 5182 :(Part-10) :1999

heck

For Mitra Ltd. Re) (Authorized Signatory)

Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

T: 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com



TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.) Report No. : MSK/UDR/2020-21/2156 Date : 19.03.2021 Sample No. : MSKGL/ED/2020-21/03/00182 Sample Description : Fugitive Air Sampling Location : Near Loading Point (Tilakhera Mine) Date of Sampling : 13.02.2021

Reference No.& Date : e-mail dtd: 23.04.2019

SL. N0.	Pollutants	Result	Method of Test Refference
1	Suspended Particulate Matter (SPM) in µg/m3	390	IS 5182 (Part-4) - 1999
2	Sulphur dioxide(SO2) in µg/m ³	12.0	IS: 5182 (Part-2)-2001
3	Nitrogen dioxide (NOx) in µg/m ³	25.0	IS: 5182 (Part- 6)-2006
4	Carbon monoxide(CO) in mg/m ³	0.68	IS 5182 :(Part-10) :1999

hecked

Pvt. Ltd. Mitra or (Authorized Signatory)





 Phone
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 Fax
 : +91-1477-220027, 220049

 E-mail
 : jkc.mgrl@jkcement.com

 Web
 : www.jkcement.com

J.K. Cement Works, Mangrol C/o. Kailash Nagar-312617, Nimbahera Distt. Chittorgarh (Raj.) INDIA

CIN : L17229UP1994PLC017199 ISO 9001:2015 I ISO 14001:2015 I ISO 45001:2018 I ISO 50001:2018 CERTIFIED COMPANY MGR/PC/14/C11/ CSO Regd.AD. Date: 0.

Date: 08.02.2021

To, The Additional Director Indira Paryavaran Bhavan, JOR Bagh Road, Near JOR bagh Metro station New Delhi 110003

Subject: Compliance to General condition No. B (XII) of Environmental Clearance.

Dear Sir,

TM

Kindly refer Environmental Clearance letter no. J – 11015/25/2011/IA. II (M) dated. 23rd January 2014 of our **Tilakhera Lime Stone Mine**. We are enclosing herewith ground water level & water quality data of **winter (January' 2021)** in response to the Clearance General Condition No. B (XII) of above referred letter for your reference & record.

Thanking you,

Yours faithfully For J.K. Cement Works, Mangrol

Anil Kumar Jain Sr. General Manager- Environment

Encl: a/a

Copy to :

The Director, Ministry of Environment and Forest, Regional Office (Central Region), Kendriya Bhawan, 5th Floor, Sector 'H', ALIGANJ, LUCKNOW-226020 (U.P.) The Member Secretary, Central Ground Water Authority, Ministry of Water Resources (G.O.I.), 16/11, Jam Nagar House, Mansingh Road NEW DELHI- 110011 The Regional Director,

Central Ground Water Board (Western Region), Jhalana Dungri Institutional Area, Jaipur – 302004 (Rajasthan)



Corporate & Registered Office : Kamla Tower, Kanpur-208001, (U. P.) INDIA Phone : +91-512-2371478 to 81 Fax : 2399854 E-mail : ho.grey@jkcement.com

J. K. Cement Works, Nimbahera

- J. K. Cement Works Mangrol
- J. K. Cement Works, Gotan
- J. K. Cement Works, Jharli

J. K. Power, Bamania

- J. K. Cement Works, Muddapur
- J. K. White Cement Works, Gotan

J. K. White, Katni



		JK Ceme	ement Works	
Generated On Period Stations	2021-02-06 17 47:31 2021-01-01 00:000 - 2021-01-31 17:41:00 Telemetry BW_4 (Tilakhera Mine)	1 17:41:00	Generated By Station Type Parameters	Sunil Singh GROUND WATER Water Level
S.No.		Time		Telemetry BW_4 (Tilakhera Mine) Water Level (m)(avg)
-		2021-01-01 00:00:00:000		35.54
2		2021-01-02 00:00:00:000		35.09
З		2021-01-03 00:00:00:000		35.15
4		2021-01-04 00:00:00:000		35.81
Ð		2021-01-05 00:00:00:000		36.21
6		2021-01-06 00:00:00:000		36.48
7		2021-01-07 00:00:00:000		36.18
ß		2021-01-08 00:00:00:000		36.11
G		2021-01-09 00:00:00:000		36.28
10		2021-01-10 00:00:00:000		36.36
11		2021-01-11 00:00:00:000		36.22
12		2021-01-12 00:00:00:000		35.76
13	10 15 16	2021-01-13 00:00:00:000		35.38
14		2021-01-14 00:00:00:000		35.07
15		2021-01-15 00:00:00:000		34.57
16		2021-01-16 00:00:00:000		34.57
17		2021-01-17 00:00:00:000		35.17
18		2021-01-18 00:00:00:000		35.99
19		2021-01-19 00:00:00:000		36.22
20	¥.	2021-01-20 00:00:00:000		36.69
21		2021-01-21 00:00:00:000		36.96

	un,													1 . a. a		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				31-Jan
/	ater Level (1		i. An analas an Analas an			10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -		29-Jan
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	etry BW_4															1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23-Jan
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11 ⁻	Time	021-01-22 (021-01-23 (021-01-24 (021-01-25 (021-01-26 (021-01-27 (021-01-28 (021-01-29 (021-01-30 (021-01-31 ([0 =			11-Jan
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									8			ilakhera N	1		-		1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			3-Jan
												Telemetry BW_4 (Tilakhera Mine)-Water Level Chart								1-Jan
	S.No.	22	23	24	25	26	27	28	29	30	31	Telemetr	ſ	0 0 0 7 0		, с ләл			5	

- Telemetry BW_4 (Tilakhera Mine)

Date

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2of 2



TESTING . INSPECTION

Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

Name & Address of the Customer :

Maugrol - Disu. Chittorgarh (Raj.)

Reference No.& Date : e-mail dtd: 23.04.2019

J.K. Cement Works, Mangrol

Cio Kailash Nagar - 312617

T; 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com

TEST REPORT

Report No. : MSK/UDR/2020-21/1899Date: 31.01.2021Sample No. : MSKGL/ED/2020-21/01/00603Sample Description : Ground Water from Tube wellSample Mark: Tilakhera Lime Stone MineDate of Sampling: 07.01.2021

ANALYSIS RESULT OF WATER AS PER IS : 10500 - 2012

No	Parameter	Desirable Limit	Permissible Limit	Method	Result
1. J	pH at 25°C	6.5-8.5	No Relaxation	IS 3025 (Part 11)-1983; Rffm: 2012	7.18
2]	Conductivity at 25°C in jumhos/cm		and the second	IS 3025 (Part 14)- 2013	972
8	Colour in Hazen	5	15	IS 3025 (Part 4)-1983; Rffin:2002	0.17
1.	Qdour	Agreeable	Agreeable	IS 3025 (Part 5)-1983 Rffm:2012	Agreeable
S	Turbidity in N.T.U]	5	IS 3025 (Part 10)-1984 Rffm: 2012	~ 1.0
b.,	Total Dissolved Solids in mg/l	500	2000	1S 3025 (Part 16)-1984; Rffm:2002	630
	Total Suspended Solids in mg/I			IS 3025 (Part 24)-1986; Rffm:2009	<2.5
N	Total Hardness as CaCO ₃ in mg/I	200	600	IS 3025 (Part 21)-2013	300
te .	Caterum as Ca in mg/l	75	200	1S 3025 (Part 40)- 1991 Rffm: 2009	96
11	Magnesium as Mg in mg/l	30	100	IS 3025 (Part 46)-1994 Rffm: 2009	14
l 1	Total Alkalinity as CaCO ₃ in mg/l	200	600	IS 3025 (Part 23)- 1986 Rffin: 2009	384
12	Chloride as CI in mg/l	250	1000	IS 3025 (Part 32)-1988 Rffm: 2009	64
	이 & Grease in mg/l		~ * * *	IS 3025(Part 39)-Rffm 2009	1.4
4	Fluoride as F in mg/l	1.0	1.5	1S 3025 (Part 60)- 2008 Rffm: 2013	0.53
1.5	tron as Fe in mg/l	0.3	No relaxation	IS 3025 (Part 53)-1988 Rffm: 2009	-0.05

thecked By Explanation

Authorized Signatory

Mitra S.K. Private Limited ANNEXURE-II

Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata - 700 016, West Bengal India CIN: U51909WB1956PTC023037

T: 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com

TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/1707 Date :07.01.2021 Sample No. : MSKGL/ED/2020-21/12/01637 Sample Description : Ambient Air Sampling Location : Near Mine Office (Tilakhera Mine) Date of Sampling : 10/11.12.2020

Reference No.& Date : e-mail dtd:23.04.2019

ANALYSIS RESULT

SL. N0.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM $_{10}$) in μ g/m ³	100	78	IS: 5182:(Part-23)-2006
2	Particulate matter(PM $_{2.5}$) in μ g/m ³	60	50	TPM/MSK/ENV (AP) /01/03
3	Sulphur dioxide(SO2) in μg/m ³	80	8.1	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	25.9	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	. 2	0.66	IS 5182 :(Part-10) :1999

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Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/1708Date: 07.01.2021Sample No. : MSKGL/ED/2020-21/12/01638Sample Description : Ambient AirSampling Location : Near Ravana Office (Tilakhera Mine)Date of Sampling : 10/11.12.2020

Reference No.& Date : e-mail dtd:23.04.2019

ANALYSIS RESULT

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SL. N0.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM ₁₀) in µg/m ³	100	92	IS: 5182:(Part-23)-2006
2	Particulate matter(PM 2.5) in µg/m ³	60	58	TPM/MSK/ENV (AP) /01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	9.2	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	29.4	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.88	IS 5182 :(Part-10) :1999

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/1709Date: 07.01.2021Sample No. : MSKGL/ED/2020-21/12/01639Sample Description : Ambient AirSampling Location : Arnia Joshi Village (Tilakhera Mine)Date of Sampling : 10/11.12.2020

Reference No.& Date : e-mail dtd:23.04.2019

ANALYSIS RESULT

SL. N0.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM $_{10}$) in µg/m ³	100	74	IS: 5182:(Part-23)-2006
2	Particulate matter(PM 2.5) in µg/m ³	60	43	TPM/MSK/ENV (AP) /01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	7.2	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in $\mu g/m^3$	80	28.1	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.55	IS 5182 :(Part-10) :1999

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/1710Date: 07.01.2021Sample No. : MSKGL/ED/2020-21/12/01640Sample Description : Ambient AirSampling Location : Near Shahbad (Tilakhera Mine)Date of Sampling : 10/11.12.2020

Reference No.& Date : e-mail dtd:23.04.2019

ANALYSIS RESULT

SL. N0.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM 10) in µg/m ³	100	80	IS: 5182:(Part-23)-2006
2	Particulate matter(PM 2.5) in µg/m ³	60	49	TPM/MSK/ENV (AP) /01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	8.1	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	31.5	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.52	IS 5182 :(Part-10) :1999

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/2141Date: 19.03.2021Sample No. : MSKGL/ED/2020-21/03/00135Sample Description : Ambient AirSampling Location : Near Mine Office, Tilakhera MineDate of Sampling : 12/13.02.2021

Reference No.& Date : e-mail dtd: 07.06.2018

AMBIENT AIR QUALITY MONITORING REPORT

SL. NO.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM ₁₀) in µg/m ³	100	62.0	IS: 5182:(Part-23)-2006
2	Particulate matter(PM 2.5) in µg/m ³	60	32.2	TPM/MSK/ENV(AP)/01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	7.4	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	22.0	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.92	IS 5182 :(Part-10) :1999
6	Ozone (O3) in µg/m ³	180	<20.0	TPM/MSK/ENV(AP)/01/07
7	Ammonia (NH3) in μg/m ³	400	14.0	TPM/MSK/ENV(AP)/01/08
8	Lead (Pb) in µg/m ³	1	< 0.01	EPA-IO 3.4
9	Nickel (Ni) in ng/m ³	20	<5.0	EPA-IO 3.4
10	Arsenic (As) in ng/m ³	6	<1.0	EPA-IO 3.4
11	Benzene (C6H6) in µg/m ³	5	<4.2	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m ³	1	<0.5	IS 5182 : Part. 12 : 2004

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/2142 Date : 19.03.2021 Sample No. : MSKGL/ED/2020-21/03/00136 Sample Description : Ambient Air Sampling Location : Near Ravana Office, Tilakhera Mine Date of Sampling : 12/13.02.2021

Reference No.& Date : e-mail dtd: 07.06.2018

AMBIENT AIR QUALITY MONITORING REPORT

SL. NO.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM $_{10}$) in μ g/m ³	100	73.8	IS: 5182:(Part-23)-2006
2	Particulate matter(PM $_{2.5}$) in μ g/m ³	60	42.1	TPM/MSK/ENV(AP)/01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	6.9	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	20.0	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.78	IS 5182 :(Part-10) :1999
6	Ozone (O3) in µg/m ³	180	<20.0	TPM/MSK/ENV(AP)/01/07
7	Ammonia (NH3) in μg/m ³	400	15.0	TPM/MSK/ENV(AP)/01/08
8	Lead (Pb) in µg/m ³	1	0.02	EPA-IO 3.4
9	Nickel (Ni) in ng/m ³	20	<5.0	EPA-IO 3.4
10	Arsenic (As) in ng/m ³	6	<1.0	EPA-IO 3.4
11	Benzene (C6H6) in µg/m ³	5	<4.2	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m ³	1	<0.5	IS 5182 : Part. 12 : 2004

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/2143 Date : 19.03.2021 Sample No. : MSKGL/ED/2020-21/03/00137 Sample Description : Ambient Air Sampling Location : Arnia Joshi Village,Tilakhera Mine Date of Sampling : 12/13.02.2021

Reference No.& Date : e-mail dtd: 07.06.2018

AMBIENT AIR QUALITY MONITORING REPORT

SL. N0.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM 10) in µg/m ³	100	60.6	IS: 5182:(Part-23)-2006
2	Particulate matter(PM 2.5) in µg/m ³	60	37.0	TPM/MSK/ENV(AP)/01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	7.4	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	33.0	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.38	IS 5182 :(Part-10) :1999
6	Ozone (O3) in µg/m ³	180	<20.0	TPM/MSK/ENV(AP)/01/07
7	Ammonia (NH3) in μg/m ³	400	17.0	TPM/MSK/ENV(AP)/01/08
8	Lead (Pb) in µg/m ³	1	0.02	EPA-IO 3.4
9	Nickel (Ni) in ng/m ³	20	<5.0	EPA-IO 3.4
10	Arsenic (As) in ng/m ³	6	<1.0	EPA-IO 3.4
11	Benzene (C6H6) in µg/m ³	5	<4.2	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m ³	.1	<0.5	IS 5182 : Part. 12 : 2004

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TEST REPORT

Name & Address of the Customer :

J.K. Cement Works, Mangrol Distt. Chittorgarh (Raj.)

Report No. : MSK/UDR/2020-21/2144Date: 19.03.2021Sample No. : MSKGL/ED/2020-21/03/00138Sample Description : Ambient AirSampling Location : Shahbad, Tilakhera MineDate of Sampling : 12/13.02.2021

Reference No.& Date : e-mail dtd: 07.06.2018

AMBIENT AIR QUALITY MONITORING REPORT

SL. N0.	Pollutants	Limit	Result	Method of Test Refference
1	Particulate matter (PM 10) in µg/m ³	100	69.5	IS: 5182:(Part-23)-2006
2	Particulate matter(PM 2.5) in µg/m ³	60	36.4	TPM/MSK/ENV(AP)/01/03
3	Sulphur dioxide(SO2) in µg/m ³	80	6.9	IS: 5182 (Part-2)-2001
4	Nitrogen dioxide (NO2) in µg/m ³	80	23.0	IS: 5182 (Part- 6)-2006
5	Carbon monoxide(CO) in mg/m ³	2	0.64	IS 5182 :(Part-10) :1999
6	Ozone (O3) in µg/m ³	180	<20.0	TPM/MSK/ENV(AP)/01/07
7	Ammonia (NH3) in µg/m ³	400	12.0	TPM/MSK/ENV(AP)/01/08
8	Lead (Pb) in $\mu g/m^3$	1	0.03	EPA-IO 3.4
9	Nickel (Ni) in ng/m ³	20	<5.0	EPA-IO 3.4
10	Arsenic (As) in ng/m ³	6	<1.0	EPA-IO 3.4
11	Benzene (C6H6) in µg/m ³	5	<4.2	IS 5182 : Part. 11 : 2006
12	Benzo(a) pyrene (BaP) in ng/m ³	1	<0.5	IS 5182 : Part. 12 : 2004

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TEST REPORT

ANNEXURE-IV

Name & Address of the Customer : J.K. Cement Works, Mangrol

Distt. Chittorgarh (Raj.)

 Report No.
 : MSK/UDR/2020-21/1739

 Date
 : 07.01.2021

 Sample No.
 : MSKGL/ED/2020-21/12/01669 &

 1670
 No.
 : MSKGL/ED/2020-21/12/01669 &

Sample Description : Noise Monitoring

Reference No.& Date : e-mail dtd:23.04.2019

Sl. No.	Sampling Date	Sampling Location	Results Leq dB(A)	
			Day Time	Night Time
1.	10/11.12.2020	Near Mine Office (Tilakhera Mine)	60.1	44.1
2.		Near Ravana Office (Tilakhera Mine)	58.6	41.2
Limit As per CPCB (Environment Protection Rules, 1986)		in Industrial Area Leq dB(A)	75	70

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Shrachi Center (5th Floor) 74B, Acharya Jagadish Chandra Bose Road Kolkata – 700 016, West Bengal India CIN: U51909WB1956PTC023037

T: 91 33 22172249 / 40143000 / 22650006 / 22650007 F: 91 33 22650008 E: info@mitrask.com w: www.mitrask.com

TEST REPORT

Name & Address of the Customer : J.K. Cement Works, Mangrol

Distt. Chittorgarh (Raj.)

 Report No.
 : MSK/UDR/2020-21/2168

 Date
 : 19.03.2021

 Sample No.
 : MSKGL/ED/2020-21/03/00206 &

 00207
 Sample Description : Noise Monitoring

Reference No.& Date : e-mail dtd:23.04.2019

SI. No.	Sampling Date	Sampling Location	Results Leq dB(A)	
			Day Time	Night Time
1.	12/13.02.2021	Near Mine Office (Tilakhera Mine)	59.5	42.3
2.	12/13.02.2021	Near Ravana Office (Tilakhera Mine)	56.9	40.4
Limit As per CPCB (Environment Protection Rules, 1986)		in Industrial Area Leq dB(A)	75	70

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PI For Mitra S.K Private Limited Authorised Signatory

