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GTN/WH/MINES/RO-MOEF/COMP./125 1696

Regd. A/D
Date: 17.05.2022

To,
Ministry of Environment Forest & Climate Change
Integrated Regional Office, Jaipur
A-209 & 218," ARANYA BHAWAN"
Jhalana Institutional Area,
Jaipur-302004 (Raj)

EC Letter No.: J-11015/03/2009-IA-II (M) dated 30.08.2010

Sub.: Six monthly Compliance Report from the period of Oct. 2021 to March 2022 in respect of Dhanappa limestone Mines, Tehsil Merta city, District Nagaur, Rajasthan

Sir,

Please find enclosed herewith the six monthly compliance report from the period of Oct. 2021 to March 2022 of our Dhanappa Limestone mines near village Dhanappa, Tehsil Merta city, District Nagaur in Rajasthan admeasuring 400.00 ha. And M.L. 03/1993.

Thanks

Yours Truly,
For JK White Cement Works
(Unit of JK Cement Ltd)



(Deepak Kalla)
General Manager (Mines)

Enc.: - Monitoring Reports.

697 CC: The Additional Director (S),
Ministry of Environment & Forests,
Paryavaran Bhavan, CGO Complex,
Lodi Road. New Delhi -110003

Regd. A/D

698 CC: Member Secretary
Rajasthan State Pollution Control Board,
4th Institutional Area, Jhalana Doongari,
Jaipur - 302004

Regd. A/D

SIX MONTHLY COMPLIANCE REPORT

Name of the Project: Dhanappa Limestone Mine (ML No. 03/93)

Enc. Clearance Letter No.: J-11015/03/2009-IA-II(M) dated 30.08.2010

Period of Compliance Report: October. 2021 to March. 2022

S. No.	A. SPECIFIC CONDITIONS	COMPLIANCE STATUS
(i)	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.	The Consent to Establish and Consent to Operate obtained from RSPCB vide letter no. F (Mines)/Nagaur (Merta) /43 (1)/ 2010 -2011/6693-6697 dated 25.01.2011 and F (Mines)/Nagaur (Merta) /2652(1)/ 2017 -2018/9170-9174 dated 31.01.2018 respectively.
(ii)	Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition © No. 412/2004 in IA No. 833 in Writ Petition © No. 202 of 1995, as may be applicable to this project.	The area doesn't falls in Aravalli hills range therefore doesn't cover by the order of the Hon'ble Supreme Court dated 08.04.2005 in the contempt petition © 412/2004 in the writ petition 202 of 1995 in the matter of Godavarman vs Union of India, however we are communicating our agreement for final outcome of above said petition, as may be applicable for this project.
(iii)	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.	Agreed
(iv)	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.	Mining lease renewal was granted for 20 years from 08/04/1994 to 07/04/2014 and extended up to 07.04.2034 as per the MMDR Amendment ACT 2015. The permission for mining was granted by State Department of Mines & Geology, Govt. of Rajasthan.
(v)	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	The fodder plots in the non-mineralized area shall be developed in lieu of use of grazing land.
(vi)	The mining operation 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 Forest and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	The avg. ultimate working depth of mine will be 25 m bgl whereas the ground water table in the area is more than 80 m bgl in the area during post-monsoon so no ground water intersection will be there due to mining operations.
(vii)	The project proponent shall ensure that no	Shall be complied with.

	natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken for protection of the 1 st order and 2 nd order streams, if any emanating/ passing through the mine lease during the course of mining operation.	
(viii)	The top soil shall temporarily be stored at earmarked sit (s) only & it should not be kept unutilized for long. The top soil shall be used for land reclamation & plantation.	Topsoil availability is very poor. Topsoil available, if any is being utilized by means of spreading on reclaimed (backfilled) area for plantation purposes simultaneously with mining operations.
(ix)	The overburden (OB) generated during the mining operation shall be concurrently backfilled. The existing waste dump shall be liquidated by the end of the 7 th year and thereafter there shall be no external OB dump. The entire excavated area of 156.12 ha, shall be backfilled and reclaimed by 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.	Presently OB/waste is being backfilled in the worked out area for the reclamation & rehabilitation point of view. The phased restoration, reclamation and rehabilitation are being carried out as per MCDR. A total of 49.10 ha area has been backfilled by the end of March, 2022 and is kept continue.
(x)	Catch drains and siltation ponds of the appropriate size shall be constructed for the working pit, temporary soil, OB and mineral dumps to arrest flow of silt and sediment directly into the agricultural fields, the Jojri Nadi and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly. Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and the temporary over burden dumps to prevent runoff of water and flow of sediments directly into the agricultural fields, the Jojri Nadi 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. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the	Catch drains and siltation ponds of appropriate size have been constructed to arrest silt and sediment flows from mine pit and temporary over burden dump. The water collected in mine pit is being utilized for watering the mine area, roads, green belt development etc.

	garland drains and desilted at regular intervals.	
(xi)	Dimension of the retaining wall at the toe of the temporary OB dumps and the OB benches within the mine to check run-off and siltation should be based on the rain fall data.	Retaining walls at the toe of the OB dumps has been constructed.
(xii)	Plantation shall be raised in an area of 172.2 ha including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, 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.	Presently 50.07 ha area is covered under greenbelt/plantation up to September. 2021. We have planted 3966 nos. of plant saplings covering 3.9 ha area in our ML area during the current financial year 2021-22. Plantation shall be raised in an area of 172.20 ha area during the mine life along periphery, along road and on backfilled and dump area.
(xiii)	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.	Water spraying arrangement on haul roads, dump, and trucks (loading & unloading) has been provided to control the fugitive dust emission. Regular monitoring for ambient air quality has been carried out; results are well within the stipulated norms.
(xiv)	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.	We are maintaining Seven no. of rainwater harvesting stations and utilizing rain water collected in mining pits for plantation and spraying on haul roads.
(xv)	The project proponent shall undertake provision of artificial recharge to ground water through rainwater harvesting to the tune of 2.5 to 3.0 ML/year in the area in consultation with the Rajasthan State Ground Water Department.	The project of rainwater harvesting has been completed. We have constructed seven rainwater harvesting stations within lease area and maintaining them in good conditions for recharging the ground water.
(xvi)	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); one in each season)] shall be carried out in consultation with the State Ground Water Board /Central Ground Water Authority and the data thus	<p>We are doing regular monitoring of ground water level in the mines as per guideline. Piezometers are installed and complete monitoring record is maintained.</p> <p>Comply with conditions, ground water level monitoring details are being regularly submitted to the concerned office.</p>

	collected may be sent regularly to the Ministry of Environment and Forest 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.	
(xvii)	Appropriate mitigative measures shall be taken to prevent pollution of the Jojri Nadi in consultation with the State Pollution Control Board.	The Nadi Jojri flows at about 1.25 km south of the lease area which is a seasonal one. No impact is envisaged due to mining activities on this said Nadi.
(xviii)	The project proponent shall obtain necessary prior permission of the component authorities for drawl of requisite quantity of water (surface water Ground water, if any) required for the project.	Not applicable. The water requirement for the site is being met from the mine sump water and nearby area.
(xix)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	We have planned and implemented seven nos.of rain water harvesting structures in the lease area.
(xx)	The project proponent shall be ensure that the fluoride level in the water to be used for drinking purpose in this area are within prescribed limits by making provision of RO System.	The J.K. White Cement Works Management already has installed RO System in the factory colony for workers, staff. The management also installed RO System in village Gotan for nearby villagers to check fluoride level.
(xxi)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance 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.	All the vehicles used for mining operations are on hired basis and we supervise & force them for periodic maintenance & servicing. PUC certified vehicles are being used.
(xxii)	The project proponent shall take specific safeguard measure to control RSPM levels in the area.	Safeguard measures area being taken to control RSPM levels in the area. The RSPM results area within the stipulated norms.
(xxiii)	Blast vibration study shall be carried out. Based on the same, charge per delay should be so adjusted that there is no adverse impact in the surrounding area due to vibration.	Blast Vibration Study is being regularly carried out and no adverse impact of blasting in the surrounding area due to vibration.
(xxiv)	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Blasting operation is being carried out during the daytime only. Controlled blasting is being practiced by

		using most advance and safe technology i.e. Shock Tubes Blasting by competent persons and also as per recommendations made in Blast Vibration Studies Report.
(xxv)	Drills shall either be operated with dust extractors or equipped with water injection system.	Wet drilling operation is being practiced.
(xxvi)	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.	Not applicable as handling of mineral is being carried out by manual means only. No loading of limestone by mechanized means.
(xxvii)	Sewage treatment plant shall be installed for the colony. ETP shall be provided for the workshop and wastewater generated during the mining operation.	Not applicable, as no effluents are envisaged from mine. The workers come from nearby villages.
(xxviii)	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.	Pre-placement medical examination and periodical medical examination is being carried out and records are maintained.
(xxix)	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office located at Lucknow.	Digital Processing of the entire lease area using remote sensing technique is being conducted regularly once in every three years. Latest digital processing has been done during 2020-21 by Mr. Shailendra Kumar Soni (QP), Jodhpur and report has been sent to MOEF and its regional Office.
(xxx)	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 structure to be removed after the completion of the project.	Not applicable as it is mining project hence no construction activity is involved.
(xxxi)	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e. PM ₁₀), NO _x 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 discharge water shall also be monitored [(TDS, DO, pH and	Ambient Air Quality-monitoring stations have been set up in mines area. Periodical monitoring is being carried out by our environment Cell and third party monitoring is being also done. All the parameters w. r. t. SPM, RSPM, NO _x , SO ₂ are well within the stipulated

	Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forest, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	norms. Annexure-I. The monitored data have been displayed on a display board at the Mine site. No water is being discharged from the lease area.
(xxxii)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forest 5 years in advance of final closure for approval.	A final mine closure plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forest well before as directed.
	B. General Conditions	
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forest.	No change in mining technology and scope of working shall be made without prior approval of Ministry of Environment & Forests.
(ii)	No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.	No change in the calendar plan including excavation, quantum of mineral limestone and waste is made.
(iii)	Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department and effectively implemented.	No endangered to endemic species of flora and fauna found in the study area. However 10 hectares land has been developed for conservation of flora and fauna in the area.
(iv)	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. PM ₁₀), NOx monitoring. Location of the stations should be decided based on the meteorological, topographical features and environmentally and 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.	Ambient Air Quality-monitoring stations have been set up in Core and Buffer zone. Regular monitoring of AAQ is being carried out.
(v)	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀), NOx should be regularly submitted to the Ministry of Environment and Forest including its Regional office located at Lucknow and the	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀), NOx is attached herewith. Annexure –I

	State Pollution Control Board / Central Pollution Control Board once in six month.	
(vi)	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.	Water spraying arrangement on haul roads, unloading of waste trucks has been provided to control the fugitive dust emission. Blasted/ fragmented limestone loading in trucks is by manual means so no dust generation is envisaged.
(vii)	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.	All the equipment's are maintained properly & workers are provided with all necessary PPE. Noise monitoring is being done & results are well within the prescribed norms.
(viii)	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 effluent.	Not applicable. There is no generation of industrial waste water from the Dhanappa Limestone Mines.
(ix)	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.	PPE has been provided to person working in such area & time to time training about safety & awareness is given to all the workers. Occupational health surveillance program of the workers is being conducted periodically. There is no occupational disease observed so far.
(x)	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.	A separate environmental management cell with suitable qualified personnel has been set-up.
(xi)	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.	The funds earmarked for environmental protection measures kept in a separate account and not diverted for other purpose. Expenditure incurred for the environmental protection measures during the compliance period is Rs. 10.42 lacs.
(xii)	The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The mining project in question is an operative mining unit since 1987.

(xiii)	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.	We are extending full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports regularly.
(xiv)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC 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 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 EC 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 Forest, Lucknow, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	The reports on the status of compliance of stipulated EC conditions including results of monitoring is being sent to concern offices within time frame (Both in hard copies as well as by e-mail) The status of compliance in hard copies is being done.
(xv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the Local NGO, If any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Copy of clearance letter has sent to the concerned Panchayat / Local NGO.
(xvi)	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.	Complied with.
(xvii)	The environmental statement for each financial year ending 31 st 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 EC conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.	The Environmental Statement for financial year April 2021 to 31 st March 2022 will be submitted in Sept. 2022

(xviii)	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 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 at Lucknow	Advertisement of Environmental Clearance published in Rajasthan Patrika & Dainik Bhaskar dated 10 Sept. 2010.
3	The Ministry of other competent authority may alter/ modify the above conditions or stipulate any further condition in the interest of environment protection.	Agreed
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.	Agreed
5	The above conditions will be enforced inter-alia, under the provisions of the water (Prevention & Control of Pollution) Act 1974, the Air (prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court of Rajasthan and any other Court of Law relating to subject matter.	We are communicating our agreement to fulfill the other statutory requirements under any law/ rules/ notifications if any applicable.
6	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.	Agreed

Thanking you,

Yours faithfully

For J.K. White Cement Works

(Unit of J.K. Cement Ltd.)


(Deepak Kumawat)

Sr. Manager-Dhanappa Limestone Mines



Test Report

Sample Number: VEL/JK/A/01 Report No.: VEL/A/2203190009
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist. Nagaur (Rajasthan) Format No.: 7.8 F 01
Party Reference No.: NIL
Report Date: 25/03/2022
Sample Description: Ambient Air Quality Monitoring Period of Analysis: 19/03/2022-25/03/2022
Receipt Date: 19/03/2022

General Information:-

Sampling Location : Pit -1 (M.L. No. 03/93) (Core Zone)
Sample collected by : VEL Team
Sampling Equipment used : RDS & FPS
Instrument Code : VEL/RDS/FPS/02
Instrument Calibration Status : Calibrated
Latitude : 26°33'32"
Longitude : 73°46'18"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 14/03/2022 to 15/03/2022
Time of Sampling : 17:00 to 17:00 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 37 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	31.51	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	72.68	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	17.54	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	9.9	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.54	mg/m ³	4
6.	Ammonia (NH ₃)	IS: 11255 (P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene (C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene, (B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	7.15	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/m ³	20

Note :- *BDL-Below Detection Limit, **DL-Detection Limit.

(Checked By)

(Authorized Signatory)



www.vardan.co.in



Test Report

Sample Number: VEL/JK/A/02 Report No.: VEL/A/2203190010
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan) Format No.: 7.8 F 01
Party Reference No.: NIL
Report Date: 25/03/2022
Period of Analysis: 19/03/2022-25/03/2022
Receipt Date: 19/03/2022

Sample Description : Ambient Air Quality Monitoring

General Information:-

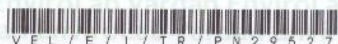
Sampling Location : Pit-2 (M.L. No-03/93) (Core Zone)
Sample collected by : VEL Team
Sampling Equipment used : RDS & FPS
Instrument Code : VEL/RDS/FPS/26/15
Instrument Calibration Status : Calibrated
Latitude : 26°33'37"
Longitude : 73°46'9"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 14/03/2022 to 15/03/2022
Time of Sampling : 17:15 to 17:15 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 37 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	32.67	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	74.28	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	18.17	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	9.05	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.55	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene(C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene,(B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	9.27	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/ m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/ m ³	20

Note :-*BDL-Below Detecation Limit,**DL-Detecation Limit.

(Checked By)

(Authorized Signatory)





Test Report

Sample Number: VEL/JK/A/03 Report No.: VEL/A/2203190011
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan) Format No.: 7.8 F 01
Party Reference No.: NIL
Sample Description : Ambient Air Quality Monitoring Report Date: 25/03/2022
Period of Analysis: 19/03/2022-25/03/2022
Receipt Date: 19/03/2022

General Information:-

Sampling Location : Pit -3 (M.L. No. 03/93) (Core Zone)
Sample collected by : VEL Team
Sampling Equipment used : RDS & FPS
Instrument Code : VEL/RDS/FPS/24
Instrument Calibration Status : Calibrated
Latitude : 26°33'52"
Longitude : 73°46'05"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 14/03/2022 to 15/03/2022
Time of Sampling : 17:30 to 17:30 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 39 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	35.36	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	78.47	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	22.45	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	13.05	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.79	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene(C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene,(B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	12.84	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/ m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/ m ³	20

Note :-*BDL-Below Detecation Limit ,**DL-Detecation Limit.

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Test Report

Sample Number: VEL/JK/A/04 Report No.: VEL/A/2203190012
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan) Format No.: 7.8 F 01 Party Reference No.: NIL
Sample Description : Ambient Air Quality Monitoring Report Date: 25/03/2022 Period of Analysis: 19/03/2022-25/03/2022 Receipt Date: 19/03/2022

General Information:-

Sampling Location : Mines Office (ML. No. 03/93) (Core Zone)
Sample collected by : VEL Team
Sampling Equipment used : RDS & FPS
Instrument Code : VEL/RDS/FPS/32/28
Instrument Calibration Status : Calibrated
Latitude : 26°33'53"
Longitude : 73°45'42"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 14/03/2022 to 15/03/2022
Time of Sampling : 17:45 to 17:45 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 37 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	30.29	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	71.54	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	16.87	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	9.95	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.52	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene (C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene, (B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	8.16	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/m ³	20

Note :-*BDL-Below Detection Limit, **DL-Detection Limit.

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Test Report

Sample Number: VEL/JK/A/05
Name & Address of the Party: M/s JK White Cement Works, Gotan
(unit of JK Cement LTD) Dhanappa Lime
Stone Mines (M.L. No. -03/93)
Village Dhanappa, Tehsil- Merta
Dist. Nagaur (Rajasthan)

Report No.: VEL/A/2203190013
Format No.: 7.8 F 01
Party Reference No.: NIL

Sample Description: Ambient Air Quality Monitoring

Report Date: 25/03/2022
Period of Analysis: 19/03/2022-25/03/2022
Receipt Date: 19/03/2022

General Information:-

Sampling Location: Dhanappa Village (Buffer zone Ml. No. 03/93, 75/90,25/2006)
Sample collected by: VEL Team
Sampling Equipment used: RDS & FPS
Instrument Code: VEL/RDS/FPS/21
Instrument Calibration Status: Calibrated
Latitude: 26°33'51"
Longitude: 73°44'50"
Meteorological condition during monitoring: Clear sky
Date of Sampling: 15/03/2022 to 16/03/2022
Time of Sampling: 18:10 to 18:10 Hrs.
Ambient Temperature (°C): Min. 22°C, Max. 38 °C
Surrounding Activity: Human & Vehicular Activities
Scope of Monitoring: Regulatory Requirement
Sampling & Analysis Protocol: IS-5182 & CPCB Guidelines
Sampling Duration: 24 hrs.
Parameter Required: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	37.16	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	76.28	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	14.97	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	10.20	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.52	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene (C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene, (B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	8.64	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/ m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/ m ³	20

Note :-*BDL-Below Detecation Limit, **DL-Detecation Limit.

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Test Report

Sample Number: VEL/JK/A/06 Report No.: VEL/A/2203190014
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan) Format No.: 7.8 F 01
Party Reference No.: NIL
Report Date: 25/03/2022
Period of Analysis: 19/03/2022-25/03/2022
Receipt Date: 19/03/2022

Sample Description : Ambient Air Quality Monitoring

General Information:-

Sampling Location : Village Basni (Buffer zone Ml. No. 03/93, 75/90,25/2006)
Sample collected by : VEL Team
Sampling Equipment used : RDS & FPS
Instrument Code : VEL/RDS/FPS/24
Instrument Calibration Status : Calibrated
Latitude : 26°36'31"
Longitude : 73°48'37"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 15/03/2022 to 16/03/2022
Time of Sampling : 18:25 to 18:25 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 38 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	*SOP No. VEL/SOP/01, Section No. SP 63	36.27	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	73.05	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	19.64	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	11.24	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.53	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene(C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene,(B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	11.86	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/ m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/ m ³	20

Note :-*BDL-Below Detecation Limit ,**DL-Detecation Limit.

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Test Report

Sample Number: VEL/JK/A/07
Name & Address of the Party: M/s JK White Cement Works, Gotan
(unit of JK Cement LTD) Dhanappa Lime
Stone Mines (M.L. No. -03/93)
Village Dhanappa, Tehsil- Merta
Dist.Nagaur (Rajasthan)

Report No.: VEL/A/2203190015

Format No.: 7.8 F 01

Party Reference No.: NIL

Sample Description : Ambient Air Quality Monitoring

Report Date: 25/03/2022

Period of Analysis: 19/03/2022-25/03/2022

Receipt Date: 19/03/2022

General Information:-

Sampling Location : Village Ramnagar (Buffer zone Ml. No. 03/93,
75/90,25/2006)
Sample collected by : VEL Team
Sampling Equipment used : RDS & FPS
Instrument Code : VEL/RDS/FPS/26/15
Instrument Calibration Status : Calibrated
Latitude : 26°36'42"
Longitude : 73°45'20"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 15/03/2022 to 16/03/2022
Time of Sampling : 18:40 to 18:40 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 38 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	41.84	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	74.67	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	16.95	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	10.06	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.51	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene(C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene,(B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	10.67	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/ m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/ m ³	20

Note :-*BDL-Below Detecation Limit,**DL-Detecation Limit.

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Test Report

Sample Number: VEL/JK/A/08 Report No.: VEL/A/2203190016
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan) Format No.: 7.8 F 01
Party Reference No.: NIL
Report Date: 25/03/2022
Period of Analysis: 19/03/2022-25/03/2022
Receipt Date: 19/03/2022

Sample Description : Ambient Air Quality Monitoring

General Information:-

Sampling Location : Village Pundlu (Buffer zone Ml. No. 03/93, 75/90,25/2006)
Sample collected by : VEL Team
Sampling Equipment used : RDS &FPS
Instrument Code : VEL/RDS/FPS/32/28
Instrument Calibration Status : Calibrated
Latitude : 26°32'57"
Longitude : 73°48'41"
Meteorological condition during monitoring : Clear sky
Date of Sampling : 15/03/2022 to 16/03/2022
Time of Sampling : 18:50 to 18:50 Hrs.
Ambient Temperature (°C) : Min. 22°C, Max. 38 °C
Surrounding Activity : Human & Vehicular Activities
Scope of Monitoring : Regulatory Requirement
Sampling & Analysis Protocol : IS-5182 & CPCB Guidelines
Sampling Duration : 24 hrs.
Parameter Required : As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	#SOP No. VEL/SOP/01, Section No. SP 63	36.28	µg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS: 5182 (P-23), 2006	72.81	µg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS: 5182 (P-6), Reaffirmed-2006	17.48	µg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS: 5182 (P-2), Reaffirmed-2012	9.86	µg/m ³	80
5.	Carbon Monoxide (CO)	IS: 5182 (P-10), Reaffirmed-2003	0.55	mg/m ³	4
6.	Ammonia (NH ₃)	IS:11255(P-6), Reaffirmed-2009	BDL (DL 2.0)	µg/m ³	400
7.	Lead (Pb)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 0.02)	µg/m ³	1
8.	Benzene(C ₆ H ₆)	IS: 5182 (P-11), 2004	BDL (DL 1.0)	µg/m ³	05
9.	Benzo(a)pyrene,(B(a)P)	IS: 5182 (P-12), 2004	BDL (DL 0.5)	ng/m ³	01
10.	Ozone (O ₃)	IS: 5182 (P-9), Reaffirmed-2003	9.36	µg/m ³	180
11.	Arsenic as (As)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 1.0)	ng/ m ³	6
12.	Nickel as (Ni)	IS: 5182 (P-22), Reaffirmed-2009	BDL (DL 5.0)	ng/ m ³	20

Note :-*BDL-Below Detecation Limit ,**DL-Detecation Limit.

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Test Report

Sample Number:	VEL/JK/AN/01	Report No.:	VEL /N/2203190009
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist. Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	: Pit -1 (ML. No. 03/93) (Core Zone)
Instrument Code	: VEL/SLM/01
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 14/03/2022 to 15/03/2022
Time of Monitoring	: 06:00 AM to 06:00 AM
Ambient Temperature (°C)	: Min. 22°C, Max. 37 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	58.14	46.35

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.
2. Night Time is reckoned between 10.00 PM to 6.00 AM.
3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.
Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number:	VEL/JK/AN/02	Report No.:	VEL /N/2203190010
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa ,Tehsil- Merta Dist.Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	: Pit -2 (ML. No. 03/93)(Core Zone)
Instrument Code	: VEL/SLM/02
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 14/03/2022 to 15/03/2022
Time of Monitoring	: 06:00 AM to 06:00AM
Ambient Temperature (°C)	: Min. 22°C, Max. 37 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	54.92	44.05

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.
2. Night Time is reckoned between 10.00 PM to 6.00 AM.
3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.
Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number:	VEL/JK/AN/03	Report No.:	VEL /N/2203190011
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa ,Tehsil- Merta Dist.Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	: Pit -3 (ML. No. 03/93)(Core Zone)
Instrument Code	: VEL/SLM/03
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 14/03/2022 to 15/03/2022
Time of Monitoring	: 06:00 AM to 06:00AM
Ambient Temperature (°C)	: Min. 22°C, Max. 39 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	61.48	48.64

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.
2. Night Time is reckoned between 10.00 PM to 6.00 AM.
3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number:	VEL/JK/AN/04	Report No.:	VEL /N/2203190012
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	: Mines Office (ML.No.03/93) (Core Zone)
Instrument Code	: VEL/SLM/4
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 14/03/2022 to 15/03/2022
Time of Monitoring	: 06:00 AM to 06:00AM
Ambient Temperature (°C)	: Min. 22°C, Max. 37 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	53.27	43.12

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.
2. Night Time is reckoned between 10.00 PM to 6.00 AM.
3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.
Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number:	VEL/JK/AN/04	Report No.:	VEL /N/2203190013
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	Dhanappa Village (Buffer Zone ML. : No.03/93,75/90,25/2006)
Instrument Code	: VEL/SLM/01
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 15/03/2022 to 16/03/2022
Time of Monitoring	: 06:00 AM to 06:00AM
Ambient Temperature (°C)	: Min. 22°C, Max. 38 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	54.22	42.54

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

- Day Time is from 6.00 AM to 10.00 PM.
- Night Time is reckoned between 10.00 PM to 6.00 AM.
- Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number: VEL/JK/AN/04 Report No.: VEL/N/2203190014
Name & Address of the Party: M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Format No.: 7.8 F 01
Village Dhanappa, Tehsil- Merta Party Reference No.: NIL
Dist.Nagaur (Rajasthan) Reporting Date: 25/03/2022
Sample Description: Ambient Noise Level Monitoring Receipt Date: 19/03/2022
Scope of Monitoring: Regulatory Requirement Sampling Duration: 24 Hrs.
Protocol Used: IS 9989: IS 9876 Sample Collected by: VEL Team
Instrument Used: SLM Instrument Calibration Status: Calibrated

General Information:-

Sampling Location: Basni Village (Buffer Zone ML. No.03/93,75/90,25/2006)
Instrument Code: VEL/SLM/02
Meteorological condition during monitoring: Clear sky
Date of Monitoring: 15/03/2022 to 16/03/2022
Time of Monitoring: 06:00 AM to 06:00AM
Ambient Temperature (°C): Min. 22°C, Max. 38 °C
Surrounding Activity: Human & Vehicular Activities
Parameter Required: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	53.84	43.61

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.
2. Night Time is reckoned between 10.00 PM to 6.00 AM.
3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.
Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number:	VEL/JK/AN/09	Report No.:	VEL /N/2203190015
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist.Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	Ramnagar Village (Buffer Zone ML. : No.03/93,75/90,25/2006)
Instrument Code	: VEL/SLM/03
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 15/03/2022 to 16/03/2022
Time of Monitoring	: 06:00 AM to 06:00AM
Ambient Temperature (°C)	: Min. 22°C, Max. 38 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	52.36	42.54

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM.
2. Night Time is reckoned between 10.00 PM to 6.00 AM.
3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.
Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number:	VEL/JK/AN/10	Report No.:	VEL /N/2203190016
Name & Address of the Party:	M/s JK White Cement Works, Gotan (unit of JK Cement LTD) Dhanappa Lime Stone Mines (M.L. No. -03/93) Village Dhanappa, Tehsil- Merta Dist. Nagaur (Rajasthan)	Format No.:	7.8 F 01
Sample Description:	Ambient Noise Level Monitoring	Party Reference No.:	NIL
Scope of Monitoring	Regulatory Requirement	Reporting Date:	25/03/2022
Protocol Used:	IS 9989: IS 9876	Receipt Date:	19/03/2022
Instrument Used	SLM	Sampling Duration	24 Hrs.
		Sample Collected by	VEL Team
		Instrument Calibration Status	Calibrated

General Information:-

Sampling Location	Pandlu Village (Buffer Zone ML. : No.03/93,75/90,25/2006)
Instrument Code	: VEL/SLM/04
Meteorological condition during monitoring	: Clear sky
Date of Monitoring	: 15/03/2022 to 16/03/2022
Time of Monitoring	: 06:00 AM to 06:00AM
Ambient Temperature (°C)	: Min. 22°C, Max. 38 °C
Surrounding Activity	: Human & Vehicular Activities
Parameter Required	: As per Work Order

Sr.No.	Test Parameter	Protocol	Test Result dB(A)	
			Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	54.81	44.63

Category of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

- Day Time is from 6.00 AM to 10.00 PM.
- Night Time is reckoned between 10.00 PM to 6.00 AM.
- Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

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Test Report

Sample Number: VEL /JK/01
Name & Address of Party: M/s JK white Cement works, Gotan
(unit of JK Cement LTD) Dhanappa Lime
Stone Mines (M.L. No. -03/93)
Village Dhanappa, Tehsil- Merta
Dist.Nagaur (Rajasthan)

Report No.: VEL/W/2203190010
Format No.: 7.8 F 01
Party Reference No.: NIL
Reporting Date: 25/03/2022

Sample Description: Ground Water
Sampling Location: Dhanappa village (Tubewell ML.No.03/9)
Sample Collected by: VardanTeam
Preservation: Refrigerated
Sampling & Analysis Protocol: IS-10500-2012

Period of Analysis: 19/03/2022 to
25/03/2022
Receipt Date: 19/03/2022

Sampling Date: 15/03/2022
Sampling Type: Grab
Sample Quantity: 2.0 Ltr.

TEST RESULTS

S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Desirable limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
1.	pH (at 25 °C)	APHA 23 rd Edition, 4500-H ⁺ B	7.65	--	6.5 to 8.5	No Relaxation
2.	Total Dissolved Solids	APHA 23 rd Edition, 2540 C	1790.0	mg/l	500	2000
3.	Alkalinity as CaCO ₃	APHA 23 rd Edition, 2320 B	360.25	mg/l	200	600
4.	Total Hardness as CaCO ₃	APHA 23 rd Edition, 2340 C	461.17	mg/l	200	600
5.	Nitrate as NO ₃	IS 3025 (P-34) 1988:RA.2019	33.48	mg/l	45	No Relaxation
6.	Chloride as Cl	APHA 23 rd Edition, 4500-Cl ⁻ B	794.61	mg/l	250	1000
7.	Sulphate as SO ₄	APHA 23 rd Edition, 4500 E	110.02	mg/l	200	400
8.	Calcium as Ca	APHA 23 rd Edition, 3500 Ca B	109.45	mg/l	75	200
9.	Magnesium as Mg	APHA 23 rd Edition, 2340 B	47.52	mg/l	30	100
10.	Fluoride as F	APHA 23 rd Edition, 2017, 4500-F ⁻ D	0.60	mg/l	1.0	1.5
11.	Boron as B	APHA 23 rd Edition, 2017, 4500B	BDL(DL 0.20)	mg/l	0.5	1.0
12.	Iron as Fe	APHA 23 rd Ed., 2017, 3500 Fe- B	0.24	mg/l	1.0	No relaxation
13.	Arsenic as As	APHA (23 rd Edition) 3030D, 3114C, 2017	BDL(DL 0.002)	mg/l	0.01	No relaxation
14.	Mercury as Hg	APHA (23 rd Edition) 3114C, 2017	BDL(DL 0.0005)	mg/l	0.001	No relaxation
15.	Lead as Pb	APHA 23 rd Edition 2017, 3030D, 3111B	BDL(DL 0.002)	mg/l	0.01	No relaxation
16.	Cadmium (as Cd)	APHA (23 rd Edition) 3030D, 3113B	BDL(DL 0.002)	mg/l	0.003	No relaxation
17.	Silver (as Ag)	APHA (23 rd Edition) 3030D, 3113B	BDL(DL 0.002)	mg/l	--	--
18.	Nickel (as Ni)	APHA (23 rd Edition) 3030D, 3113B	BDL(DL 0.002)	mg/l	--	--
19.	Copper (as Cu)	APHA (23 rd Edition) 3030D, 3113B	BDL(DL 0.002)	mg/l	0.05	1.5

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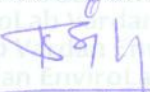




Test Report

Sample No.: VEL/JK/01					Report No.: VEL/W/2203190010	
S. No.	Parameter	Test-Method	Result	Unit	Limits of IS:10500 -2012	
					Desirable limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
20.	Selenium as Se	APHA (23 rd Edition)3114C,2017	BDL(DL 0.001)	mg/l	0.01	No relaxation
21.	Zinc as Zn	APHA 23 rd Ed. 2017,	BDL(DL 0.20)	mg/l	5	15
22.	Turbidity	APHA 23 rd Edition, 2130 B	BDL(DL 1.0)	NTU	1	5
23.	Aluminium as Al	APHA 23 rd Edition, 3111 D	BDL(DL 0.002)	mg/l	0.03	0.2
24.	Manganese as Mn	APHA 23 rd Edition, 3111 B	BDL(DL 0.01)	mg/l	0.1	0.3
25.	Residual Free Chlorine	APHA (23 rd Edition 2017)3500 Cl B	BDL(DL 0.15)	mg/l	0.2	1
26.	Total.Coliform	IS:1622:2009	Absent	MPN/ 100ml	Shall Not Be detectable in 100 ml Sample	NA
27.	E.Coli	IS:1622:2009	Absent	Per 100ml	Shall Not Be detectable in 100 ml Sample	NA
28.	Colour	APHA 23 rd Edition, 2120 B	BDL(DL 1.0)	Hazen	5	15
29.	Odour	APHA 23 rd Edition, 2150 B	Agreeable	--	Agreeable	Agreeable
30.	Taste	APHA 23 rd Edition, 2160 B	Agreeable	--	Agreeable	Agreeable
31.	Anionic Detergents as MBAS	APHA 23 rd Edition,2017, 5540 C	BDL(DL 0.05)	mg/l	0.2	1.0
32.	Phenolic Compounds	APHA 23 rd Edition, 5530 C	BDL(DL 0.0004)	mg/l	0.001	0.002
33.	Chromium as Cr	APHA 23 rd Ed.,2017, 3111 B	BDL(DL 0.002)	mg/l	0.05	No relaxation
34.	Silver (as Ag)	IS 1622	BDL(DL 0.01)	mg/l	0.1	No relaxation
35.	Mineral Oil	IS 3025 (Part 39)	BDL(DL 0.05)	mg/l	0.5	No relaxation
36.	Barium as (Ba)	APHA 23 rd Ed.,2017, 3111 B	BDL(DL 0.002)	mg/l	0.7	No relaxation
37.	Molybdenum as (Mo)	APHA	BDL(DL 0.01)	mg/l	0.7	No relaxation
38.	Carbonate as CO3	IS 3025 (Part 23):1986	BDL(DL 2.0)	mg/l	-	-
39.	Polychlorinated biphenyls(PCB)	APHA 5175/6630	BDL(DL 0.01)	mg/l	0.0005	No relaxation
40.	Polynuclear aromatic Hydrocarbon (PAH)	APHA 23 rd Ed.,2017, 6040	BDL(DL 0.01)	mg/l	0.0001	No relaxation
41.	Chloramines as Cl	IS 3025 (Part 26)	BDL(DL 0.5)	mg/l	4	No relaxation
42.	Sulphide	IS 3025 (Part 29):1986 RA 2009	BDL(DL 0.2)	mg/l	200	400
43.	Free Residual Chlorine	IS 3025 (Part 26):1986 RA 2019	BDL(DL 0.02)	mg/l	0.2	1
44.	Ammonia (as NH3)	IS 3025 (Part 34):1984 RA 2019	BDL(DL 0.3)	mg/l	0.5	No relaxation
45.	Sodium	IS 3025 (Part 45):1993 RA 2019	420	mg/l	NA	NA
46.	Potassium	IS 3025 (Part 45):1993 RA 2019	3.43	mg/l	NA	NA

Note:- *BDL-Below Detection Limit, *DL- Detection Limit.


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Test Report

Sample Number: VEL /JK/02
Name & Address of Party: M/s JK white Cement works, Gotan
(unit of JK Cement LTD) Dhanappa Lime
Stone Mines (M.L. No. -03/93)
Village Dhanappa, Tehsil- Merta
Dist.Nagaur (Rajasthan)

Report No.: VEL/W/2203190011
Format No.: 7.8 F 01
Party Reference No.: NIL
Reporting Date: 25/03/2022

Sample Description: Surface Water
Sampling Location: Dhanappa village(Pitwater MI.No.03/93)
Sample Collected by: Vardan Team
Preservation: Refrigerated
Sampling & Analysis Protocol: IS-10500-2012

Period of Analysis: 19/03/2022to
25/03/2022
Receipt Date: 19/03/2022

Sampling Date: 15/03/2022
Sampling Type: Grab
Sample Quantity: 2.0 Ltr.

TEST RESULTS

S. No.	Parameter	Test-Method	Result	Unit
1.	pH (at 25 °C)	APHA 23 rd Edition, 4500-H+ B	7.84	--
2.	Total Dissolved Solids	APHA 23 rd Edition, 2540 C	182.0	mg/l
3.	Alkalinity as CaCO ₃	APHA 23 rd Edition, 2320 B	36.12	mg/l
4.	Total Hardness as CaCO ₃	APHA 23 rd Edition, 2340 C	24.47	mg/l
5.	Nitrate as NO ₃	IS 3025 (P-34) 1988:RA.2019	7.08	mg/l
6.	Chloride as Cl	APHA 23 rd Edition, 4500-Cl- B	50.34	mg/l
7.	Sulphate as SO ₄	APHA 23 rd Edition, 4500 E	14.46	mg/l
8.	Calcium as Ca	APHA 23 rd Edition, 3500 Ca B	9.37	mg/l
9.	Magnesium as Mg	APHA 23 rd Edition, 2340 B	2.75	mg/l
10.	Fluoride as F	APHA 23 rd Edition, 2017, 4500-F- D	0.26	mg/l
11.	Boron as B	APHA 23 rd Edition, 2017, 4500B	BDL(DL 0.20)	mg/l
12.	Sodium as Na	IS 3025 (Part 45):1993	26.42	mg/l
13.	Potassium as K	IS 3025 (Part 45):1993	1.63	mg/l
14.	Iron as Fe	APHA 23 rd Ed., 2017, 3500 Fe- B	BDL(DL 0.10)	mg/l
15.	Arsenic as As	APHA (23 rd Edition)3030D,3114C,2017	BDL(DL 0.002)	mg/l
16.	Mercury as Hg	APHA (23 rd Edition)3114C,2017	BDL(DL 0.0005)	mg/l
17.	Lead as Pb	APHA 23 rd Edition 2017,3030D,3111B	BDL(DL 0.002)	mg/l
18.	Cadmium (as Cd)	APHA (23 rd Edition)3030D,3113B	BDL(DL 0.002)	mg/l
19.	Silver (as Ag)	APHA (23 rd Edition)3030D,3113B	BDL(DL 0.002)	mg/l
20.	Nickel (as Ni)	APHA (23 rd Edition)3030D,3113B	BDL(DL 0.002)	mg/l
21.	Copper (as Cu)	APHA (23 rd Edition)3030D,3113B	BDL(DL 0.002)	mg/l

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Test Report

Sample No.: VEL/GW/02			Report No. VEL/W/2203190011	
S. No.	Parameter	Test-Method	Result	Unit
22.	Selenium as Se	APHA (23 rd Edition)3114C,2017	BDL(DL 0.001)	mg/l
23.	Zinc as Zn	APHA 23 rd Ed. 2017,	BDL(DL 0.20)	mg/l
24.	Turbidity	APHA 23 rd Edition, 2130 B	BDL(DL 1.0)	NTU
25.	Aluminium as Al	APHA 23 rd Edition, 3111 D	BDL(DL 0.002)	mg/l
26.	Manganese as Mn	APHA 23 rd Edition, 3111 B	BDL(DL 0.01)	mg/l
27.	Residual Free Chlorine	APHA (23 rd Edition 2017)3500 Cl B	BDL(DL 0.15)	mg/l
28.	Total.Coliform	IS:1622:2009	Absent	MPN/ 100ml
29.	E.Coli	IS:1622:2009	Absent	Per 100ml
30.	Colour	APHA 23 rd Edition, 2120 B	BDL(DL 1.0)	Hazen
31.	Odour	APHA 23 rd Edition, 2150 B	Agreeable	--
32.	Taste	APHA 23 rd Edition, 2160 B	Agreeable	--
33.	Anionic Detergents as MBAS	APHA 23 rd Edition,2017, 5540 C	BDL(DL 0.05)	mg/l
34.	Phenolic Compounds	APHA 23 rd Edition, 5530 C	BDL(DL 0.0004)	mg/l
35.	Chromium as Cr	APHA 23 rd Ed.,2017, 3111 B	BDL(DL 0.002)	mg/l
36.	Silver (as Ag)	IS 1622	BDL(DL 0.01)	mg/l
37.	Mineral Oil	IS 3025 (Part 39)	BDL(DL 0.05)	mg/l
38.	Barium as (Ba)	APHA 23 rd Ed.,2017, 3111 B	BDL(DL 0.002)	mg/l
39.	Molydenum as (Mo)	APHA	BDL(DL 0.01)	mg/l
40.	Carbonate as CO ₃	IS 3025 (Part 23):1986	BDL(DL 2.0)	mg/l
41.	Polychlorinated biphenyls(PCB)	APHA 5175/6630	BDL(DL 0.01)	mg/l
42.	Polynuclear aromatic Hydrocarbon (PAH)	APHA 23 rd Ed.,2017, 6040	BDL(DL 0.01)	mg/l
43.	Chloramines as Cl	IS 3025 (Part 26)	BDL(DL 0.5)	mg/l
44.	Sulphide	IS 3025 (Part 29):1986 RA 2009	BDL(DL 0.2)	mg/l
45.	Free Residual Chlorine	IS 3025 (Part 26):1986 RA 2019	BDL(DL 0.02)	mg/l
46.	Ammonia (as NH ₃)	IS 3025 (Part 34):1984 RA 2019	BDL(DL 0.3)	mg/l

Note:- *BDL-Below Detection Limit, *DL- Detection Limit.

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