



(A Government of Karnataka Undertaking)

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No.KIADB/JDTP/FCN:20456/ 5 6 9 3 /2021-22

Date: 13/08/2021

To,

The Ministry of Environment, Forest & Climate Change (MoEF&CC)

Regional Office (Southern Zone), Kendriva Sadan. 4th floor, F-Wing, 17th main road, II block, Koramangala, Bengaluru- 560 034.

Respected Sir/ Madam,

Subject: Submission of Half yearly point wise Environmental Compliance report for all the conditions stipulated in the Environmental Clearance issued with respect to Establishment of Jakkasandra Industrial Area, KIADB, Kolar District to an extent of 627.47 Acres.

1. ToR issued by MoEF&CC vide letter No.KSEAC/MEETING/2014 dated 18th June 2014

- 2. Environmental Public Hearing held on 22nd September, 2016.
- 3. Environmental Clearance reference no.: F.No. 21-313/2017-IA.III dated 16th October 2017.
- 4. General Condition imposed in the Environmental Clearance for submission of Half yearly Compliance @ Condition No. 3.

With reference to above subject, it is to be informed that MoEF&CC has issued Environmental Clearance for Establishment of Jakkasandra Industrial Area, KIADB, Kolar District to an extent of 627.47Acres, after finalizing the ToR granted vide letter No.KSEAC/MEETING/2014 dated 18th June 2014 and after conducting the public hearing on 22nd September, 2016.

In the said Environmental Clearance at the General Condition No. 3, it is stipulated that KIADB has to submit half yearly compliance report to all the conditions stipulated in the EC issued on 16th October 2017.

Hence, the detailed point wise compliance report to all the conditions stipulated in the Environmental Clearance issued to Jakkasandra Industrial Area is being submitted to MoEF&CC and the same is attached for your kind perusal and for information.

Kindly acknowledge the same.

Yours faithfully,

Chief Engineer-1 KIADB, Bengaluru Half Yearly Environmental Compliance Report for all the Conditions Stipulated in the Environmental Clearance issued with respect to Development of Jakkasandra Industrial Area, Jakkasandra village, Malur Taluk, Kolar District, Karnataka.

For

KARNATAKA INDUSTRIAL AREAS DEVELOPMENT BOARD (KIADB)

#49, 4th & 5th Floors, 'East Wing', Khanija Bhavan, Race Course Road,
Bengaluru – 560001.

Submission to

The APCCF, Regional office,
Ministry of Environment, Forest and Climate Change (MoEF&CC)

Kendriya Sadan, IV Floor, E & F wings, 17th Main Road, Koramangala II Block, Bangalore- 560 034.

Prepared by

ROBUST MATERIALS TECHNOLOGY PRIVATE LIMITED

(A MoEF&CC, DSIR-Recognized | FSSAI, ISO 45001:2018-Certified | NABL-Accredited | Drugs Control Department- Approved Company.)

Plot No.94, Thirumala Complex, 2nd Floor, NGEF Layout, Nagarabhavi Main Road, Bengaluru - 560 072.

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1.0. PROJECT DETAILS:

- Name of the Project: Development of Jakkasandra Industrial Area, Jakkasandra village, Malur Taluk, Kolar District, Karnataka.
- 2) Environmental Clearance reference no.: F.No. 21-313/2017-IA.III dated 16th October 2017.
- **3) Total Plot Area:** 254.04 ha (627.47 acres).
- 4) ToR issued: Issued by MoEF&CC vide letter No.KSEAC/MEETING/2014 dated 18th June 2014.
- 5) Public Hearing: Public hearing was held on 22nd September, 2016.
- 6) Category of Industries: Red, Orange and Green category.
- 7) Total Water requirement for the Industrial area: 3,696 KLD will be met by 1,943 KLD of fresh water & 1,753 KLD of treated water.
- 8) Total Wastewater generation: 1845 KLD.
- 9) Total Power requirement: 3250 KW will be sourced from BESCOM.
- 10) Project Cost: 151.60 Crores.
- 11) Schedule & Category: 7 (C) & B category

12) Address of the Correspondence:

Chief Development Officer & Chief Engineer,

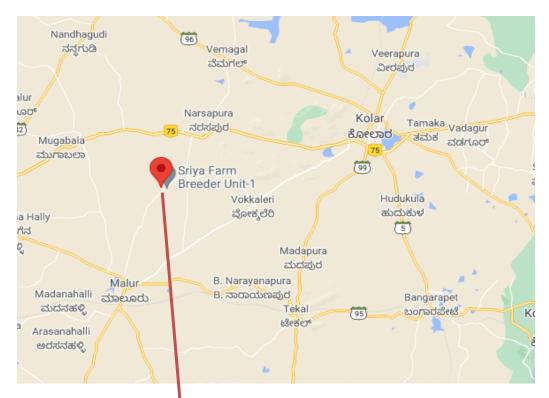
Karnataka Industrial Areas Development Board (KIADB),

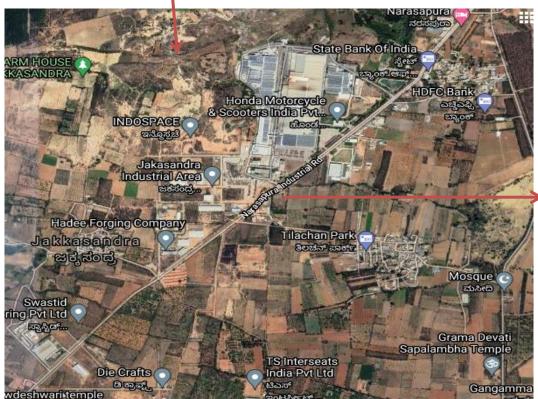
#49, 4th & 5th floors,

Khanija Bhavan, Race Course road,

Bengaluru- 560 001.

2.0. LOCATION MAP:





Jakkasandra Industrial Area.

Fig.1: Map showing Jakkasandra Industrial Area, Malur Taluk, Kolar district.

3.0. Half Yearly Environmental Compliance Report for all the Conditions Stipulated in the Environmental Clearance issued with respect to Establishment of Jakkasandra Industrial Area, Kolar District. (Ext-627.47Acres)

6.			
Sl. No.	CONDITIONS STIPULATED IN THE EC	COMPLIANCE STATUS	
A	SPECIFIC CONDITIONS:		
I	Construction Phase:		
1	The Industrial Area should be developed as per the revised layout plan submitted to the Ministry.	Complied.	
2	Two tanks adjacent to the existing area to be protected. For preserving the water body, a 75 m wide greenbelt shall be provided and an elevated bund shall be developed for protection of the water body.	Complied. 100 meters buffer has been provided from the village boundary and near water bodies for green belt development. Green belt of sufficient width will be developed with the local tree and shrub species. Also individual industrial units are also advised to maintain green belt for at least 33% of the allotted plot area as applicable.	
3	No groundwater extraction shall be done during construction and operation phases of the project.	Noted. Necessary permission will be obtained by KIADB for digging the new Borewell from Central Ground Water Authority and no ground water will be drawn without permission from the Central/State Ground Water Authority. Also during the operation phase, industries will also be informed about the same.	
4	Develop conservation plan for wildlife and biodiversity management.	Noted. All necessary precautionary and conservation measures will be developed and followed.	
5	Ensure 100% utilization of the fly ash generated in the industrial units.	Noted. As far as possible Fly ash will be used as building material during the construction phase. The individual Industrial units will be informed to strictly follow the provisions of Fly ash notification and use the fly ash products for building and construction purposes.	
6	Explore the possibility of hazardous waste disposal facility within 30 km of proposed industrial area.	Noted. The feasibility for the disposal facility will be duly considered.	

7	Traffic circulation plan to be prepared and strictly implemented including development of service roads merging with highways.	Noted. Depending on the width of the roadways surrounding the project site and traffic conditions in the proposed area, entry and exit points have been provided and the roads inside the project area will be well built to avoid any kind of traffic congestion. Individual industries are strictly advised to provide parking facilities only in the allotted plot areas and not to use public space.
8	Abandoned quarry in existing Industrial area to be filled up to ground level and used for green belt development or otherwise make fencing and used as natural water body for augmentation of ground water recharge.	Noted. Adequate measures will be taken for the development of the green belt and for ground water recharge systems wherever applicable.
9	Adequate safety protection measures to be made around the LPG unit.	Noted.
10	All the existing water bodies adjacent to the project area to be maintained and water conservation measures to be adopted.	Agreed as suggested. No alterations are made in case of existing natural drainage patterns, water bodies, rajakaluve etc. and the adequate buffer zone will be provided in the required areas.
11	Green belt must be developed using only native species of plants. No exotic species to be used. Plants of native species can be procured from local forest department.	Agreed. Required buffer area will be provided from the village boundary and water bodies for green belt development. Green belt of sufficient width will be developed with the local tree and shrub species. No exotic species will be introduced in the area. Also individual industrial units are also encouraged to maintain required green belt area of 33% of the allotted plot area as applicable.
12	No further land acquisition will be permitted for proposed industrial area without shifting of Jakkasandra village.	Noted.
13	Consent to Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Noted. Consent for Establishment from Karnataka State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, has been obtained on 04 th June 2019. Copy has been submitted to MoEF&CC, Regional Office, Bangalore.

14	To achieve the Zero Liquid Discharge, waste water generated from different industrial operations should be properly collected, treated to the prescribed standards and then recycled or reused for the identified uses.	Noted. Individual industries have agreed to install in-house STP/ ETP to treat the wastewater generated within the industry. The industries are also advised to adapt Zero Liquid discharge technology wherever possible/ applicable for efficient wastewater treatment, so that the treated water conform to the standards prescribed by KSPCB/CPCB and also so that there is zero discharge of untreated effluent from the industry & 100% reuse of the treated water.
15	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	Agreed. Necessary direction will be issued to individual industries for obtaining authorization by individual industries once the industries will start the operation and they will be advised to strictly follow the rules and regulations made under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 & Solid Waste Management Rules, 2016. Necessary directions will be issued for segregation and collection of Hazardous wastes in safe and secured manner and will be disposed to authorized disposers/recyclers /vendors etc. for ensuring safe disposal.
16	During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.	Complied- Competent persons from KIADB & Construction workers available at the Project site were advised to take necessary precautions and measures to reduce the noise and air emissions, contributed during construction phase and necessary measures will be undertaken to keep the emission within the norms. Necessary steps will be taken to dispose the solid waste to authorized vendors for recycling and safe disposal. Construction wastes were disposed as per the guidelines stipulated in the Construction and Demolition Waste Management Rules, 2016.

21	All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to RO, MoEF&CC along with half yearly compliance report.	Noted and complied with all the recommendations made in the Environmental Management Plan and applicable mitigation measures are adapted wherever required and mitigation plans so adapted shall be included in the half yearly Compliance report and shall be submitted to the Regional Office of MoEF&CC, Bangalore.
20	Special purpose vehicle shall be established for implementation, monitoring and compliance of the environmental safeguards.	Noted.
19	The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the concerned Regional Office, MoEF&CC along with six monthly Monitoring reports.	Noted and complied as suggested. Individual industries will be directed to maintain log book for recording water consumption and wastewater generation by respective industries, once the industries start operation in the proposed area.
18	There shall be a continuous green belt along the plant premises, except at the designated entry and exit points.	Noted. Avenue plantation and green belt development of local tree species in allotted area & buffer zones are done.
17	This environmental clearance is only for the said Industrial Area. Any other activity within the Industrial Area would require separate environmental clearance, as applicable under EIA Notification, 2006 as amended from time to time. For all the individual units, environmental clearances, as applicable, shall be obtained from the respective regulatory authorities.	Noted. Individual industries will be strictly advised to obtain necessary Environmental Clearance from the respective Competent Authority, as applicable under EIA notification, 2006, based on the manufacturing activity proposed by individual industries. A condition will also be included in the agreement of Lease/ Sale deed to obtain EC as applicable. No permission/ approval will be issued for the industries to operate without the prior approval from the Competent Authority.

22	The member units shall provide storage tanks for storage of effluent for monitoring the characteristics of effluent and to treat the same to meet the prescribed inlet norms before taking into the CETP for further treatment.	Noted and Complied as suggested. Industries are strictly advised to obtain necessary approval from KSPCB and adhere to the terms and conditions mentioned in the said consent. Storage tanks of sufficient capacity are provided to store the effluent generated from the industrial process. A direction will be issued to individual industries to have an agreement between the CETP facility and individual industry for the scientific disposal of wastewater. The industry that does not have in-house ETP facility is advised to carryout pre-treatment of wastewater generated and neutralize the same with acid/alkali and then discharge this wastewater for further treatment in CETP facility. The treated water shall meet the prescribed norms and the test reports of characteristics of raw effluent water and treated water will be submitted to competent authority.
23	Proper meters with recording facilities shall be provided to monitor the effluent quality and quantity from member industries to CETP and from CETP to re-use for identified purpose on continuous basis.	Noted. Industries which are operated in the respective industrial area are directed to provide water meter for all the water sources and maintain logbooks for water flow meters for recording quantity of water consumption and wastewater generation and they are informed to reuse the treated water on daily basis.
24	The project proponent shall establish an environmental monitoring cell with all the potential polluting units as members to review the environmental monitoring data and suggest for improvements.	Noted and Environmental Cell has been created with qualified Engineer to review the environmental monitoring data and suggest for improvements.
25	Internal Road widths within the industrial estate shall be minimum 18 m ROW.	Noted and complied as per the local zoning regulation.
26	Common facilities such as repair shops, rest rooms for drivers and attendants shall be provided.	Noted and Basic facilities will be provided for all the workers and employees involved during construction phase of the proposed industrial area.
27	All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.	Complied. All necessary infrastructure facilities and basic sanitary facilities were provided to the workers in the site during the construction phase of the industrial area.

28	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	Noted. All necessary steps will be taken to ensure that there is no contamination of soil and ground water during construction activities. Once the industries are made operational Red Category industries will be directed to carryout regular monitoring of Environmental attributes to observe the changes if any.
29	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	Noted. All the construction debris generated during the construction phase will be used for filling up of low lying area. However, all the construction and hazardous waste generated during the operation phase of industries will be directed to store in safe and secure manner and disposed carefully, to prevent the contamination of the ground water.
30	Parking space to accommodate trucks, cars, two wheelers and bicycles shall be provided as per the norms.	Agreed. Required area as per the norms for Parking space to accommodate trucks, cars, two wheelers and bicycles will be provided.
31	Any hazardous waste generated during development/ construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.	Agreed as suggested Necessary approvals from the competent authority will obtained for the safe disposal of generated hazardous waste as per the applicable rules and regulations.
32	The diesel generator sets to be used during development/ construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.	Noted and Complied. DG sets used during construction was of low sulphur diesel type and the air and noise emissions were within the prescribed norms, so that there was no disturbance created due to use of DG sets. DG sets with acoustic enclosures were used to comply with the norms.
33	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.	Complied. Necessary actions will be taken to store diesel in safe and secure manner, so that there are no accidents or harm to the environment. Individual industries in the notified site will be advised to take necessary steps and they will be advised to obtain clearances from competent authority for the safe storage of diesel.

34	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	Complied- the owners of the hired Vehicles will be informed to keep all the vehicles in good condition and emission documents will be maintained by the vehicle owner which conforms to the prescribed standards and the workers were advised to use the vehicles during the non-peak hours as per the guidelines of Honourable High court of Karnataka in WP. No. 1958/2011 (LB-RES-PIL) on 04.12.2012 for different activities involved in construction work.
35	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during development/ construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ SPCB.	Complied- Competent persons from KIADB & Construction workers available at the Project site were advised to take necessary precautions and measures to reduce the noise and air emission levels, contributed during construction and adequate measures were taken to keep the emission within the norms.
36	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003.	Noted and complied. As far as possible Fly ash will be used as building material during the construction phase. The individual Industrial units will be directed to strictly follow the provisions of Fly ash notification and use the fly ash products for building and construction purposes.
37	Ready mixed concrete must be used in site development and building construction.	Noted.
38	Storm water control and its re-use as per CGWB and BIS standards for various applications.	Noted.
39	Water demand during development/ construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Noted.
40	Permission to draw ground water, if any, shall be obtained from the competent Authority prior to construction/ operation of the project.	Noted and being complied. No permission will be given by KIADB for new Borewell drilling without the prior approval from Central Ground Water Authority and no ground water will be drawn without permission from the Central/ State Ground Water Authority. Also the industries units will also be informed about the same.

41	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.	Noted and complied. During the operation phase, in order to reduce the water consumption & wastewater generation, individual industries will be informed to install latest technologies for efficient and limited use of water wherever possible. Industries will also be directed to conserve the water resource by adopting the same.
42	Regular supervision of the above and other measures for monitoring should be in place all through the development/ construction phase, so as to avoid disturbance to the surroundings.	Complied. Regular supervision was done to ensure that there is no disturbance to the surroundings during the construction phase.
43	The responses/commitments made to the issues raised during public hearing shall be complied with in letter and spirit, and action taken shall be submitted to the Ministry.	Noted. The suggestions/observations and concerns made during the public hearing will be duly considered and all relevant measures are being taken to improve the socio-economic conditions of the project and surrounding area.
44	For Corporate Social Responsibility activities, 2% of the project cost shall be earmarked. The CSR funds shall be allocated for vocational training programme, development of infrastructure like construction of public toilets etc.	Noted and will be complied as suggested. Steps with respect to CSR/CER responsibilities are being taken. Allotted funds are being used for the development of required infrastructure. Awareness programmes, training programmes, distributions of saplings for planting in forest areas are being done as part of CSR/CER responsibilities.
45	All member industries shall be instructed to comply with the consent conditions given by PCB/ MoEF&CC strictly to maintain ambient air quality within the stipulated standards of CPCB.	Noted. Individual Industrial units will be strictly directed to follow the prevalent rules and regulations of all the concerned regulatory authorities while allotting the plots to the industries, before starting any type of construction activities and comply with those rules. They will be informed to obtain consent from the concerned authorities such as CPCB/ KSPCB and comply with the prescribed norms and standards of the competent authority.
46	Existing State/Central Government norms shall be followed for providing employment, preference will be given to local educated and unemployed people based on their educational qualification. Vocational training shall be conducted to improve the skills of local people so that they can get employment/ self-employment.	Noted. Industries are also advised to do the same as per the prevalent norms of State/Central Government.

47	Compensation will be paid as per the land acquisition act of State.	Noted and Complied.
48	KIADB should allot the plots only for orange and green category industries in the proposed industrial area. If red category industry has to come up in the same industrial area, that particular industry requires taking a separate clearance from appropriate authorities.	Noted. As mentioned plots will only be allotted for orange and green category industries. If red category industry has to come up, prior approval from the concerned authorities will be obtained.
49	There should be fire stations in civic amenity sites provided in the layout taking into account the direction of wind as fire hazard industries are also to be located in safe zones not affecting any other immediate neighbourhood as per wind rose diagram.	Noted.
50	Corporate Environment Responsibility:	
	(a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.	Noted. Individual Industrial units in the project area will be informed the same. All norms, standards and policies laid down by the competent authority will be strictly followed by the industrial units.
	(b) The Environment Policy shall prescribe for standard operating process/ procedures to bring into focus any infringements/deviation/ violation of the environmental or forest norms/ conditions.	Noted. Industrial units in the project area will be informed the same. Standard Operating Procedures will be laid down to keep the track, if there is any kind of deviations, non-compliances.
	(c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.	Noted. Industrial units in the project area have been informed the same. Hierarchical system will be followed to all the concerned authorities when required.
	(d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	Noted. Individual Industrial units at the time of operation in the project area will be informed to have well laid down system of reporting of non-compliances/ violations of environmental norms.

II	Operation Phase	
1	To achieve the Zero Liquid Discharge, waste water generated from different industrial operations should be properly collected, treated to the prescribed standards and then recycled or reused for the identified uses.	Noted. During the operation phase Individual industries will be informed to install in-house STP/ ETP to treat the wastewater generated within the industry. The industries are also advised to adapt Zero Liquid discharge technology wherever possible/ applicable for efficient wastewater treatment, so that the treated water conform to the standards prescribed by KSPCB/CPCB and also so that there is zero discharge of untreated effluent from the industry & 100% reuse of the treated water.
2	All the topsoil excavated during development/ construction activities should be stored for use in horticulture/landscape development within the project site.	Complied. The topsoil excavated will be used for landscaping, levelling and plantation purposes in the project site.
3	Disposal of muck during development/ construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	Noted. The construction debris will be reused / recycled for backfilling and for construction of roads and the excess debris is disposed in safe and secure manner as per the Construction and Demolition rules 2016.
4	The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.	Noted. During the construction phase, all the wastes will be collected systematically in a safe and secure manner and will be disposed to authorized vendors/ disposers. Industries are informed to follow the guidelines issued by KSPCB/ CPCB or the local authority.
5	The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. The location of the DG sets may be decided with in consultation with State Pollution Control Board.	Noted. Required Stack height for DG sets will be provided as per CPCB/ KSPCB norms.
6	Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	Noted as suggested. Each individual industry will be informed to maintain the noise levels as per the CPCB /KSPCB norms.

7	The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	Complied. It is proposed to develop 15 m green belt all along the boundary of the industrial area. During the construction and development of the industrial area, plantation will be undertaken in a phased manner. Green belt is developed with the local tree and shrub species. Avenue plantation has done along the adjoining roads of the project site. Also individual industrial units are also advised to maintain green belt for at least 33% of the allotted plot area as applicable.
8	Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.	Noted and weep holes will be provided as suggested. Individual industries are advised to do the same.
9	Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 4 mts. above the highest ground water table.	Noted. The project area and the industries proposed to operate within the area will be directed to provide with rain water harvesting systems and the industries will be advised to adapt pre-treatment systems as per the guidelines set by KSPCB/CPCB. The rainwater recharge well of sufficient capacity will be dug as per the guidelines.
10	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	Complied. Necessary approvals will be obtained and CGWA guidelines will be followed to monitor ground water level and its quality. No permission will be given by KIADB for new Borewell drilling without the prior approval from Central Ground Water Authority.
11	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking, loading and unloading should be fully internalized and no public space should be utilized.	Noted. Depending on the width of the roadways surrounding the project site and traffic conditions in the proposed area, entry and exit points have been provided and the roads inside the project area will be well built to avoid any kind of traffic congestion. Individual industries are strictly advised to provide parking facilities only in the allotted plot areas and not to use public space.

12	Energy conservation measures like installation of LED for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used LEDs should be properly collected and disposed off/ sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.	Noted. Energy conservation measures will be adopted wherever possible. Necessary safety measures will be taken for the disposal of CFLs and TFLs or any type of waste which can result in contamination. Solar panels will be used wherever possible. Industrial units in the project area will also be advised to do the same.		
13	The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	·		
В	GENERAL CONIDITIONS:			
1	The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.	Agreed. All necessary measures and steps will be taken for the protection of environment and conservation of natural resources.		
2	Provision should be made for supply of kerosene or cooking gas and pressure cooker to the labourers during construction phase.	Noted. Required infrastructure facility and fuel will be provided to all the labourers for cooking during construction phase.		
3	Six monthly monitoring reports should be submitted to the Ministry and its concerned Regional Office.	Noted.		
4	A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the concerned Regional Office, District Industries centre and Collector's Office/Tehsildar's office for 30 days.	Noted and Complied.		
5	The project proponent shall set up a separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Complied. KIADB has already setup an Environment management cell with necessary facilities and qualified personnel to look after the Environmental aspects to ensure that there is no damage to the Environment.		
6	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	Noted and followed.		
7	The above stipulations would be enforced among others under the provisions of Water (Prevention	Noted.		

	and Control of Dollation) Act 4074 11 At	
	and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act the 1981,	
	the Environment (Protection) Act, 1986, the Public	
	Liability (Insurance) Act, 1991 and EIA	
	Notification, 2006. Officials from the concerned Regional Office of	
8	MoEF&CC who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC should be forwarded to the concerned Regional Office of MoEF&CC.	Noted. Full cooperation, facilities & the required documents will be provided during the inspection and whenever required by the concerned authorities. As suggested complete set of all the required documents has been submitted to Regional Office-MoEF&CC at Bangalore.
9	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	
10	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted and complied. All the necessary approvals and clearances applicable will be obtained from the concerned authorities. Industrial units in the project area are also strictly informed to do the same before starting any kind of activities.
11	The project proponent should advertise In at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at http://www.envfor.nic.in. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional office of MoEF&CC.	

	The discussion beauty 6 to 1 to 60 to 10.	
12	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil)No. 460 of 2004 as may be applicable to this project.	Noted and understood.
13	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
14	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.	Noted and understood.
15	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the concerned Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM 10, PM 2.5,S02, N02 (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Noted and will be complied.
16	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the concerned Regional Office of MoEF&CC by e-mail.	Noted and will be complied.

4.0. Environmental Monitoring Details:

The MoEF&CC/ SEIAA has made mandatory to submit Six- monthly Compliance reports for everyone who has obtained Environmental Clearance. For this purpose of preparing Compliance report and Environmental Monitoring, the KIADB has provided the work to M/s. Robust Materials Technology Pvt. Ltd. to carry out Environmental Monitoring for Industrial Areas.

4.1. Ambient Air Quality Monitoring:

The Ambient Air Quality Monitoring is carried out for parameters such as Respirable Particular Matter (PM 10), Fine Particulate Matter (PM 2.5), Sulphur Dioxide (SO2) and Nitrogen Dioxide (NO2) at 8 Locations and the detailed reports are attached as **Annexure-4.**

The monitoring results reveal the following pollutant concentration with respect to PM, SOx and NOX:

SI. No.	Parameters	Limits (As Per NAAQS) for 24hrs	Minimum Value	Maximum Value	Average Value
1	Particulate Matter PM ₁₀ , μg/m ³	100	59.2	69.8	63.4
2	Particulate Matter PM _{2.5} , μg/m ³	60	20.8	25.3	23.4
3	Nitrogen Dioxide NO _{2,} μg/m ³	80	16.3	22.7	19.1
4	Sulphur dioxide as SO ₂ , µg/m ³	80	8.6	13.2	11.0

The above table reveals that all the monitored values are within the standards prescribed under National AAQM Standards notified on 18.09.2002.

4.2. Ambient Noise Level Monitoring:

The monitoring results reveal the following ambient noise concentration at different locations:

Sl. No.	Locations	Noise level in dB(A) Leq		CPCB Standard	
		Day	Night	Lday (Ld)	LNight (Ln)
1	Near Little Fingers India Pvt. Ltd Project site	66.0	53.5	55	45
2	Near Mindahalli Village	53.2	41.8	55	45
3	Near Ramenahalli Village	54.6	43.3	55	45
4	Near Yarrappanahalli Village	55.9	45.3	75	70
5	Near Swastid Engineering- Project site	66.6	53.9	75	70
6	Near Jakkasandra Village	53.9	43.7	55	45
7	Near Bhavanahalli Village	53.8	44.3	55	45
8	Near Dombarahalli Village	54.0	44.6	55	45

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB (A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB (A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB (A) (During night time).

The above table reveals that all the monitored values are within the standards prescribed under Noise Rules, 2000.

Ambient Noise Level is monitored and the detailed reports are attached as Annexure-5.

4.3. Water Quality Monitoring:

Water quality in the industrial area is monitored. The Ground and Surface water samples are collected and analyzed for water quality parameters. The Compiled test reports are attached as **Annexure-6**.

The water quality monitoring was carried out at 8 bore wells (different villages) spread across the study area and the following table gives the details of Maximum, Minimum and Average concentrations of different water quality parameters and the analysis reports reveals that all the parameters are well within the standards prescribed under IS 10500.

SI. No.	Parameters	Minimum Value	Maximum Value	Average Value
1	Color (hazen units)	<2.0	<2.0	<2.0
2	Odour	Agreeable	Agreeable	Agreeable
3	pH Value	7.65	8.38	8.0
4	Turbidity, NTU	0.1	0.4	0.2
5	Chloride as Cl, mg/L	36.8	209.9	145.8
6	Total hardness as CaCO _{3,} mg/L	147.3	303.9	220.5
7	Calcium as Ca, mg/L	25	88.5	58.9
8	Magnesium as Mg, mg/L	11.18	31.29	16.9
9	Total dissolved Solids, mg/L	228	776	476.1
10	Sulphate as SO ₄ , mg/L	32.4	42.8	41.0
11	Nitrate as NO ₃ , mg/L	5.2	9.2	6.1
12	Fluoride as F, mg/L	0.2	0.6	0.4
13	Iron as Fe, mg/L	BDL	BDL	BDL
14	Lead as Pb, mg/L	BDL	BDL	BDL
15	Copper as Cu, mg/L	BDL	BDL	BDL
16	Zinc as Zn, mg/L	BDL	BDL	BDL
17	Chromium as Cr, mg/L	BDL	BDL	BDL
18	Dissolved oxygen, mg/L	3.1	4.1	3.43

4.4. Soil Quality Monitoring:

Soil quality in the industrial area is monitored. The soil samples are collected and analysed for different parameters. The compiled test reports are attached as **Annexure-7**.

The soil quality monitoring was carried out at 8 locations (different villages) spread across the study area and the following table gives the details of Maximum, Minimum and Average concentrations of different soil quality parameters and the analysis reports reveals that all the parameters are well within the standards prescribed.

SI. No.	Soil Parameters	Minimum Value	Maximum Value	Average Value
1	pH (20% Suspension)	6.95	8.09	7.6
2	Conductivity, µmhos/cm	20	326	152.5
3	Chloride as Cl, mg/Kg	218.97	894.9	520.2
4	Moisture, %	0.22	3.72	1.6
5	Organic Matter, %	0.45	2.7	1.3
6	Calcium as Ca, mg/Kg	261.1	728.3	443.1
7	Magnesium Mg, mg/Kg	13.2	265.2	93.5
8	Colour	Brown	Brown	Brown
9	Sulphur as S, mg/Kg	4.54	17.8	7.7
10	Nitrogen as N, %	0.003	0.03	0.009
11	Phosphorous as P, mg/Kg	1.13	5.36	2.6
12	Potassium as K, mg/Kg	32.06	307.7	187.2
13	Copper as Cu, mg/Kg	3.34	8.72	5.2
14	Chromium as Cr, mg/Kg	5.32	67.2	18.8
15	Zinc as Zn, mg/Kg	18.29	33.9	23.8
16	Lead as Pb, mg/Kg	3.94	9.52	6.4
17	Nickel as Ni, mg/Kg	3.28	7.99	5.8
18	Cadmium as Cd, mg/Kg	<0.1	<0.1	<0.1

F.No. 21-313/2017-IA.III

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj New Delhi - 110 003

Dated: 16th October, 2017

To

The CEO & Executive Member M/s. Karnataka Areas Development Board # 1413, 2nd Floor, R.P. Building Nrupathunga Road, **Bangalore** - 560 001

Sub: Development of Industrial Area, Jakkasandra village, Malur Taluk, Kolar District, Karnataka by M/s Karnataka Industrial Areas Development Board - Environmental Clearance reg.

Sir,

This has reference to your letter No. KIADB/DO-II/2983/2016-17 dated 13th March, 2017 regarding above mentioned proposal to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

- 2. The proposal for Development of Industrial Area, Jakkasandra village, Malur Taluk, Kolar District, Karnataka by M/s Karnataka Industrial Areas Development Board, was considered by the Expert Appraisal Committee (EAC) for Industrial Estate/Area, SEZ and Highways projects, in its meetings held on 8th September, 2017.
- 3. The details of the project, as per the documents submitted by project proponent, and also as informed during the above said EAC meetings with the help of Ramky Enviro Engineers Ltd., Hyderabad, are reported to be as under:
- (i) The proposal is for the development of Industrial Area in Jakkasandra village, Malur taluk, Kolar district, Karnataka by M/s Karnataka Industrial Area Development Board (KIADB).
- (ii) The size of the project is 254.04 ha (627.47 acres).

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- (iii) The total water requirement is the facility is 3696 KLD, the same will be met by 1943 KLD of fresh water & 1753 KLD of treated water.
- (iv) The quantity of wastewater generated will be (1845 KLD) will be treated in 2 CETPs of capacity 0.9 MLD each and 2 CSTPs of capacity 0.25 MLD each. 1753 KLD of treated wastewater will be recycled (for flushing, for gardening).
- (v) About 9 TPD solid waste will be generated in the project. The biodegradable waste (about 2 TPD) will be processed in OWC and the non-biodegradable waste generated (about 7 TPD) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is about 100 KVA and will be met from DG sets/ BESCOM and total power requirement during cooperation phase will be 3250 KW and source is BESCOM.
- (vii) Parking of about 7.46 ha is provided for the heavy industrial trucks and heavy vehicles.
- (viii) It is not located within 10 km of any Eco Sensitive areas.
- (ix) Investment/Cost: The total cost of the project is Rs. 151.60 Crores, capital cost towards environmental mitigation measure is Rs.13.75 Crores and for CSR activities Rs.1.50 Crore.
- (x) The project was accorded ToR vide Letter No.KSEAC/MEETING/2014 dated 18.06.2014 by SEIAA, Karnataka.
- (xi) Public Hearing was held on 22nd September, 2016 at 11.00 AM at proposed site of Jakkasandra village, Malur taluk, Kolar district, Karnataka.
- (xii) Benefits of the project:
 - (a) Industrial areas support start-ups, new enterprise incubation, development of knowledge - based business and offer an environment where local and international firms can interact with centres of knowledge creation.
 - (b) They act as innovation club, promoting interactive learning and the commercialization of research outputs and can exploit local entrepreneurial potential.
 - (c) Able to attract new business by providing an integrated infrastructure in one location.
 - (d) To set aside industrial uses from urban areas to try to reduce the environmental and social impact of the industrial uses.
 - (e) To provide for localized environmental controls those are specific to the needs of the industrial area.

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- (xiii) No forest land is involved in the project.
- (xiv) There are no court cases pending with the project proponent.
- 4. During the deliberation, the Committee noted the following:
 - (i) The proposed project belongs to B category as it is <500 ha and it would house only B Category industries along with a CETP. However, it is being appraised at central level as SEIAA is not functional in the Karnataka state.
 - (ii) Project proponent will not use any groundwater during construction and operation phases. They will utilise the secondary treated water from Bangalore Water Supply and Sewerage Board (BWSSB). Sewage treatment plant.
 - (iii) All the land required for Industrial Areas has been acquired and compensation was paid.
 - (iv) The Initial budget provided towards CSR activities is Rs.150 Lakhs, i.e., 1% of the capital investment.
 - (v) Greenbelt 33% (84.02 ha) along the boundary, roads, open areas as well as in and around individual units.
 - (vi) The industries to be housed within the proposed Industrial Estate include Warehouse & logistics, Furniture making, General Engineering, Automobile parts, Steel sheets / pipes, Plastic units, LPG bottling, etc. As per TOR, no Electroplating industry should be established.
 - (vii) Committee suggested to changing the industrial layout plan not to house any industries to the west side of the Jakkasandra village located in the midst of proposed Industrial Area and use this land for green belt purpose. Proponent has agreed to submit the revised layout map immediately.
- 5. The EAC, in its 176th meeting held on 8th September, 2017, has recommended the project for grant of Environmental Clearance subject to submission of revised lay out plan of Industrial Area. Accordingly, the proponent has submitted the revised layout of the Jakkandra Industrial area to this Ministry.
- 6. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance for the Development of Industrial Area, Jakkasandra village, Malur Taluk, Kolar District, Karnataka by M/s Karnataka Industrial Areas Development Board, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:

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PART A - SPECIFIC CONDITIONS

I. <u>Construction Phase</u>

- (i) The Industrial Area should be developed as per the revised layout plan submitted to the Ministry.
- (ii) Two tanks adjacent to the existing area to be protected. For preserving the water body, a 75 m wide greenbelt shall be provided and an elevated bund shall be developed for protection of the water body.
- (iii) No groundwater extraction shall be done during construction and operation phases of the project.
- (iv) Develop conservation plan for wildlife and biodiversity management.
- (v) Ensure 100% utilization of the fly ash generated in the industrial units.
- (vi) Explore the possibility of hazardous waste disposal facility within 30 km of proposed industrial area.
- (vii) Traffic circulation plan to be prepared and strictly implemented including development of service roads merging with highways.
- (viii) Abandoned quarry in existing Industrial area to be filled up to ground level and used for green belt development or otherwise make fencing and used as natural water body for augmentation of ground water recharge.
- (ix) Adequate safety protection measures to be made around the LPG unit.
- (x) All the existing water bodies adjacent to the project area to be maintained and water conservation measures to be adopted.
- (xi) Green belt must be developed using only native species of plants. No exotic species to be used. Plants of native species can be procured from local forest department.
- (xii) No further land acquisition will be permitted for proposed industrial area without shifting of Jakkasandra village.
- (xiii) 'Consent to Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (xiv) To achieve the Zero Liquid Discharge, waste water generated from different industrial operations should be properly collected, treated to the prescribed standards and then recycled or reused for the identified uses.
- (xv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.



(xvi) During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.

(xvii) This environmental clearance is only for the said Industrial Area. Any other activity within the Industrial Area would require separate environmental clearance, as applicable under EIA Notification, 2006 as amended from time to time. For all the individual units, environmental clearances, as applicable, shall be obtained from the respective regulatory authorities.

(xviii) There shall be a continuous green belt along the plant premises, except at the designated entry and exit points.

(xix) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the concerned Regional Office, MoEF&CC along with six monthly Monitoring reports.

(xx) Special purpose vehicle shall be established for implementation, monitoring and compliance of the environmental safeguards.

(xxi) All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to RO, MoEF&CC along with half yearly compliance report.

(xxii) The member units shall provide storage tanks for storage of effluent for monitoring the characteristics of effluent and to treat the same to meet the prescribed inlet norms before taking into the CETP for further treatment.

(xxiii) Proper meters with recording facilities shall be provided to monitor the effluent quality and quantity from member industries to CETP and from CETP to re-use for identified purpose on continuous basis.

(xxiv) The project proponent shall establish an environmental monitoring cell with all the potential polluting units as members to review the environmental monitoring data and suggest for improvements.

(xxv) Internal Road widths within the industrial estate shall be minimum 18 m ROW.

(xxvi) Common facilities such as repair shops, rest rooms for drivers and attendants shall be provided.

(xxvii) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.

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(xxviii) Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

(xxix) Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.

(xxx) Parking space to accommodate trucks, cars, two wheelers and bicycles shall be provided as per the norms.

(xxxi) Any hazardous waste generated during development/ construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

(xxxii) The diesel generator sets to be used during development/construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.

(xxxiii) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.

(xxxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

(xxxv) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during development/ construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/SPCB.

(xxxvi) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003.

(xxxvii) Ready mixed concrete must be used in site development and building construction.

(xxxviii) Storm water control and its re-use as per CGWB and BIS standards for various applications.

(xxxix) Water demand during development/construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

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- (xl) Permission to draw ground water, if any, shall be obtained from the competent Authority prior to construction/operation of the project.
- (xli) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xlii) Regular supervision of the above and other measures for monitoring should be in place all through the development/ construction phase, so as to avoid disturbance to the surroundings.
- (xliii) The responses/commitments made to the issues raised during public hearing shall be complied with in letter and spirit, and action taken shall be submitted to the Ministry.
- (xliv) For Corporate Social Responsibility activities, 2% of the project cost shall be earmarked. The CSR funds shall be allocated for vocational training programme, development of infrastructure like construction of public toilets etc.
- (xlv) All member industries shall be instructed to comply with the consent conditions given by PCB/MoEF&CC strictly to maintain ambient air quality within the stipulated standards of CPCB.
- (xlvi) Existing State/Central Government norms shall be followed for providing employment, preference will be given to local educated and unemployed people based on their educational qualification. Vocational training shall be conducted to improve the skills of local people so that they can get employment/self-employment.
- (xlvii) Compensation will be paid as per the land acquisition act of State. (xlviii) Corporate Environment Responsibility:
 - (a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
 - (b) The Environment Policy shall prescribe for standard operating process/ procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/ conditions.
 - (c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
 - (d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.



II. Operational Phase

- (i) To achieve the Zero Liquid Discharge, waste water generated from different industrial operations should be properly collected, treated to the prescribed standards and then recycled or reused for the identified uses.
- (ii) All the topsoil excavated during development/construction activities should be stored for use in horticulture/landscape development within the project site.
- (iii) Disposal of muck during development/construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (iv) The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- (v) The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- (vi) Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (vii) The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.
- (viii) Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- (ix) Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 4 mts. above the highest ground water table.
- (x) The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- (xi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking, loading and unloading should be fully internalized and no public space should be utilized.



- (xii) Energy conservation measures like installation of LED for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used LEDs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.
- (xiii) The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

PART - B: GENERAL CONDITIONS

- (i) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.
- (ii) Provision should be made for supply of kerosene or cooking gas and pressure cooker to the labourers during construction phase.
- (iii) Six monthly monitoring reports should be submitted to the Ministry and its concerned Regional Office.
- (iv) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the concerned Regional Office, District Industries centre and Collector's Office/Tehsildar's office for 30 days.
- (v) The project proponent shall set up a separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
- (vi) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.
- 7. The above stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act the 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- 8. Officials from the concerned Regional Office of MoEF&CC who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC should be forwarded to the concerned Regional Office of MoEF&CC.
- 9. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of

the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

- 10. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- 11. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at http://www.envfor.nic.in. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional office of MoEF&CC.
- 12. This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.
- 13. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 14. 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.
- 15. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the concerned Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, PM_{2.5}, SO₂, NO₂ (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- 16. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also

be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the concerned Regional Office of MoEF&CC by e-mail.

> Thermal 16/10/2017 (Raghu Kumar Kodali) Director/Scientist F

Copy to:

- 1. The Secretary, Department of Environment, Govt. of Karnataka, Bangalore.
- 2. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32.
- 3. The Member Secretary, Karnataka State Pollution Control Board, "Parisara Bhavan, 4th & 5th Floor, # 49, Church Street, Bangalore-01.
- 4. The APCCF (C), MoEF&CC, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wing, 17th Main Road, Koramangala II Block, Bangalore-34.
- 5. IA Division, Monitoring Cell, MOEF&CC, New Delhi 3.
- 6. Guard file.

(Raghu Kumar Kodali)

Director/Scientist F

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decbees / E-mail : ho@kspcb.gov.in ವೆಬ್ರ್ಯಾಕ್ರೆಟ್ / Website : http://kspcb.gov.in 25581383, 25589112 25588151, 25588270 25588142, 25588520

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ Karnataka State Pollution Control Board

"ಪರಿಸರಭವನ", 1 ರಂದ 5ನೇ ಮಹಡಿಗಳು, ನಂ.49, ಚರ್ಚ್ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ, ಭಾರತ "Parisara Bhavana", 1st to 5th Floor, # 49, Church Street, Bengaluru - 560 001, Karnataka, INDIA

HD Reg No. 157987 dated 06.12.2018

KIADB, Kolar

/BY REGD. POST WITH ACK. DUE / (This document contains 06 pages)

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Date

0 4 JUN 2019

The Development Officer & Executive Engineer- II, M/s. Karnataka Industrial Areas Development Board, #14/3A, 2^{rid} Floor, CFC Building, Maharshi Arvind Bhavan, Opp. RBI, Nrupathunga Road, Bengaluru - 560 001.

Sir.

Consent for Establishment (CFE) to develop Industrial Area with 192 Nos. of Industrial Plots of different sizes in an extent of 627.47 Acres (254.04 Ha) located at Jakkasandra Village, Malur Taluk, Kolar District by M/s. Karnataka Industrial Areas Development Board (KIADB).

Ref

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- 1. CFE applications received at Regional Office, KSPCB, Kolar on 06.12.2018.
- 2. Inspection of the proposed project site by Officer of the Regional Office. KSPCB, Kolar on 16.01.2019.
- 3. Proceedings of Consent Committee Meeting held on 16.02.2019.
- 4. This Office had issued Refusal Order vide No. OB-707 dated 11 03 2019.
- 5. EC obtained from MoEF & CC vide No. F. No. 21-313/2017-IA III dated
- 6. Proceedings of Consent Committee Meeting held on 30.04.2019.

With reference to the above, it is to be informed that this Board hereby accords Consent for Establishment under the Water (Prevention & Control of Pollution) Act 1974, to develop Industrial Area with 192 Nos. of Industrial Plots of different sizes in an extent of 627.47 Acres (254.04 Ha) located at Jakkasandra Village, Malur Taluk, Kolar District by M/s. Karnataka Industrial Areas Development Board (KIADB), subject to the following conditions.

SENIOR ENVIRONMENTAL OFFICER

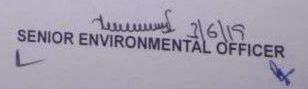
- I. Environmental Aspects and Management during the course of construction:
 - The applicant shall arrange services like housing facility, water supply, sewage facilities on a temporary basis at construction site and same shall be maintained without any adverse impact on the environment.
 - b) The applicant shall control the movement of vehicles carrying construction materials in order to avoid noise pollution in the surrounding.
 - c) The applicant shall obtain Consent for Operation (CFO) from the Board before handing over to residents Association.
 - d) This CFE is issued only from the point of water pollution control and does not have any relevance over land dispute, any pending cases with any Departments/Hon'ble Courts.
- e) Sewage Treatment Plant (STP) and solid waste processing facility (for Organic) shall be provided and operated satisfactorily by the project proponent himself before it is handed over to Association/Company.
- f) The project proponent shall strictly adhere to the conditions stipulated in the Environmental clearance (EC) issued from the Ministry of Environment, Forest and Climate Change – New Delhi vide No. F. No. 21-313/2017-IA.III dated 16.10.2017.
- g) The applicant shall strictly adhere to the zoning Regulation with respect to buffer zone towards any Lake, Nala, drain or any other water bodies as per the local planning authority guidelines.
- h) The applicant shall submit final approved plan from competent authority to the Board before taking up any construction activities.

II. WATER CONSUMPTION:

The water consumption for the above project activity shall not exceed 3696 KLD.
 The applicant shall not draw water from borewell without permission of CGWA.

III. WATER POLLUTION CONTROL:

1. The total quantity of sewage shall not exceed 1845 KLD and shall be treated in the sewage treatment plant of capacity 2 CETP of 0.9 MLD 2 CSTP of 0.25 MLD with the treatment scheme as submitted in the STP proposal to meet the standards stipulated below before utilizing for Urban Reuse viz., landscape irrigation, vehicle washing, toilet flushing, use in fire protection and commercial air conditioners. STP shall be constructed on modular basis to cater to phase-wise development and applicant shall follow STP construction and operation guidelines published by the Board and the location of the STP should be above ground level & should be easily



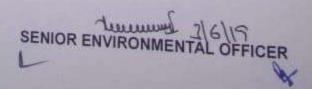
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VI. SOLID WASTE DISPOSAL & Hazardous Waste Disposal:

- The applicant shall collect, treat and dispose off all solid waste generated during construction i.e. Muck, and Garbage after construction if any in such manner so as not to cause environmental pollution.
- The applicant shall apply and obtain authorization for management & handling of waste oil under Hazardous & other Waste (Management & Transboundary Movement) Rules 2016
- The applicant shall earmark sufficient place for segregation and processing and convert the bio-degradable solid waste generated from unit into compost within their premises with scientific method.
- The applicant shall strictly follow the Government Notification No. FEE 17 EPC 2012 Bangalore dated 11.03.2016 with regard to plastics ban.
- (a). The applicant shall strictly follow Construction & Demolition Waste Management Rules, 2016.
 - (b). The applicant shall display the C& D waste Management Rules in site and ensure the compliances.

VII. HEALTH & SAFETY:

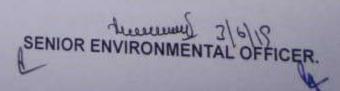
- The applicant shall provide all necessary healthcare facilities to workers and shall carry out routine health survey among workers.
- The applicant shall provide all safety measures including personal protective equipments to workers during construction.

VIII. GENERAL:

- The applicant shall maintain natural nallah and other such features as in the revenue survey map and adopt zonal regulations of the concerned Planning Authorities.
- 2. The applicant must create structure/facility for rain water harvesting and ground water recharge.
- The applicant shall provide dual piping system in the layout in order to use the treated sewage for toilet flushing, gardening and other secondary purposes.
- The applicant shall arrange for alternate power supply in the form of D.G.Set to run and operate the essential units of sewage treatment plant, in event of brake down of regular supply from Electricity Board.
- Exact date of commissioning of the sewage treatment plant shall be informed to this
 pollution control measures provided by the applicant

SENIOR ENVIRONMENTAL OFFICER

- The applicant shall appoint a qualified Environmental Engineer/ Scientist for the Management of Environmental aspects and also establish Environmental Cell to oversee the operation of STP.
- 8. The applicant shall make provisions for wooded Buffer zone all along the periphery of the layout.
- The applicant shall implement the Environmental Management Plan during construction and after construction as given under EMP report.
- 10. The applicant shall not change or alter (a) number of Sites (b) Layout plan (c) the quality, quantity or rate of discharge/ emissions and (d) install/replace/alter the water or air pollution control measures without the prior approval of the Board.
- 11. The applicant shall immediately report to the Board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of the standards stipulated, and the applicant shall immediately take appropriate corrective and preventive actions under intimation.
- 12. The Board reserves the right to review, impose additional condition or conditions, revoke, change or alter the terms and conditions.
- 13. This CFE does not give any right to the Party/Project Authority to forego any legal requirement, which is necessary for setting/operation of the project.
- 14. The project authorities shall dispose scientifically Bio-Medical waste and electronic waste to authorized common disposal facility and authorized recyclers respectively by entering into agreement as per new Bio Medical Waste Management Rules, 2016 and E- Waste (Management) Rules, 2016.
- 15. The project authorities shall not use Kharab land if any for any purpose and keep available to the general public duly displaying a board as public property. No structure of any kind be put up in the Kharab land and shall be afforested and maintained as green belt only.
- 16. The applicant is liable to reinstate or restore, damaged or destroyed elements of environment at his cost, failing which, the applicant/occupier as the case may be shall be liable to pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by Competent Agency or Committee.
- 17. The CFE is issued without prejudice to the Court case pending in any Hon'ble Court.
- 18. The applicant shall maintain 30m buffer distance from edge of the lake.
- 19. The applicant shall take all necessary steps not to cover the storm water drains within the vicinity of the project site & are desilted & kept clean at all times.
- 20. No sewage, solid waste and C & D waste should be put in the storm water drains and these drain should be encroachment free.



- reserved area 21. The demarcate applicant shall clearly CETP/STP/SWM/Composting in layout plan.
- 22. The CFE is issued as per the recommendation of consent committee meeting held on 30.04.2019 and the recommendation of consent committee meeting held on 30.04.2019 and duly approved by Member Secretary & Chairman.

Please note that separate consent of the Board for discharge of liquid effluent shall have to be obtained by to be obtained by remitting prescribed consent fee. The application for consent has to be made 45 days in advance to completion of Residential Layout. Issue of consent will be considered only after completion of sewage treatment plant, solid waste management facilities.

The receipt of this letter may please be acknowledged.

For and on behalf of Karnataka State Pollution Control Board

for

Sd/-SENIOR ENVIRONMENTAL OFFICER.

COPY TO:

- 2. The Environmental Officer, KSPCB, Regional Office, Kolar, for information and necessary action.
- 3 Master copy (CFE-Cell).
- 4. Master copy (Dispatch).

5. Office copy.

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(4) ತಾಂತ್ರಿಕ ಬಡ್ ತರೆಯುವ ದಿನಾಂಕ:

(5) ಅರ್ಥಿಕ ಬಿಡ್ ತೆರೆಯುವ iಗೆ (ಸಾಧ್ಯವಾದಲ್ಲಿ ಮಾತ್ರ), ಬಾಕಿ ಉಳಿದ iೇ ಬದಲಾವಣೆ ಇರುವುದಿಲ್ಲ, ಹೆಚ್ಚಿನ s.gov.in ವೆಬ್ಸೈಟ್ನಲ್ಲಿ ಹಾಗೂ ಈ

ಸಹಿ/- ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್. ರಾಜ್ ಇಂಜಿನಿಯರಿಂಗ್ ವಿಭಾಗ, ಕಾರವಾರ

RAVARI NIGAM LIMITED

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tive Engineer,
Project Division,Ranebennur.

Madhapura Corrigendum-3/ dtd: 19-03-2018

ENDUM-3

Corrigendum -1 Notification 2018 3) This office 4447 dtd: 03-03-2018

tions cited at Ref (1) to (3) work of "Survey, Investigation, Testing and Commissioning of d Works consisting of Intake m pump house, Power supply ansmission lines, Rising Main, and Construction of Gravity structure for lifting of water from ankaranahalli village to fill the Taluk Havrei Districts, including for a period of 5 years after completion of scheme on Turnapura Lift Irrigation Scheme in ct. Karnataka" was called and insted of Guddada Madhapura (Madlur) LIS works's drawings lence the Drawings of Guddada indum for the above said work Further details are remains tender notification and its made the Corrigendum,
who be pullished in the he news papers orther

NL. U.T.P. Division, Ranebennur.

ne No. (08373) - 267071, and

Sd/- Executive Engineer, Project (West) Division

"Pay development charges, help to develop Bengaluru"

6

KARNATAKA INDUSTRIAL AREAS DEVELOPMENT BOARD

(A Government of Karnataka Undertaking)
No. 49, East Wing, 4th & 5th Floor, Khanija Bhavan, Race Course
Road, Bengaluru - 560 001, Ph.: 22265383
Fax: 080-22267901 website: www.kladb.in
e-Mall: cdoce@kiadb.in

PUBLIC ANNOUNCEMENT

(Through GoK e-Procurement Portal Only)

KIADB has obtained Environmental Clearance from MoEF&CC/SEIAA for the following Industrial Areas. The Copies of the Environmental Clearances are available on the website of MoEF&CC (http://moef.nic.in)/SEIAA (http://seiaa.karnataka.gov.in).

- A. Environmental Clearance from MoEF&CC
- 1. Sompura Industrial Area, 1&2 Stage, Nelamangala Taluk, Bengaluru-Rural District.
- 2. Vasanthanarasapura Industrial Area, 2nd & 3rd Phase, Tumakuru District.
- 3. Gowribidanur, 1st & 2nd Stage Industrial Area, Chikkaballapura District.
- 4. Kadechuru Industrial Area, Kadechuru Village, Yadgiri Taluk & District.
- 5. Chamarajanagara Industrial Area, Badanakuppe and Kallambelli villages, Chamarajanagara Taluk & District.
- 6. Harohalli Industrial Area, 2nd & 3rd Phase, Ramangara District
- 7. Jakanasandra Industrial Area, Jakasandra village, Malur Taluk, Kolar District.
- B. Environmental Clearance from SEIAA
- 1) Malur Industrial Area, 4th Phase, Malur Taluk, Kolar District.
- 2) Narasapura Industrial Area, 1st Stage, Kolar District.
- 3) IT/BT Park, Gamanagatti, Tarihal Village, Dharwad District.
- 4) Bidadi Industrial Area, 2nd Phase, Ramanagara District.
- 5) Vemagal Industrial Area, Kolar District.
- 6) Vasanthanarasapura Industrial Area, 1st Stage, Tumakuru Taluk & District.
- 7) Hi-Tech Defence & Aerospce Components, Devanahalli Taluk, Bengaluru Rural District.
- 8) Doddaballapura Industrial Area, 3rd Phase, Obdenahalli, Doddaballapura Taluk, Bangalore Rural District.
- 9) Kittur Industrial Area, Bailahongal Taluk, Belagavi District.
- 10) Nandur Kesaratagi Industrial Area, 2rd Phase, Kalaburagi Taluk & District.

Sd/- Chief Development Officer & Chief Engineer

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(Recognised by MoEF&CC, DSIR-Government of India & Notified by FSSAI)
(Approved by Drug Control Department-GoK; Certified by OHSAS-ISO 45001:2018)

No. 94, 2nd Floor, Thirumala Complex, Nagarabhavi Main Road, NGEF Layout,
Nagarabhavi, Bengaluru - 560 072. Tel: 080 2318 6230

Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT



M/s. Karnataka Industrial Areas Development	Report No.	: RE/2021/00467
Board (KIADB). No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.	Report date	: 09/04/2021
	Ref.	: Test Request Form
	Date of Sampling	: 03/04/2021 to 04/04/2021
	Job Order No	: RE/2021/00467
	Date of Receipt	: 04/04/2021
	Analysis Start date	: 05/04/2021
Sample Particulars: Ambient Air Monitoring for 24 hrs.	Analysis Completed date	: 09/04/2021
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar Distric	t, Karnataka. (Ext-627.47 Acres	s).
Sample Location: Near Dombarahalli Village.		70

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	63.5	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	24.9	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , µg/m ³	18.6	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	10.0	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards

Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler
Model	Envirotech APM-460 BL	Envirotech APM-550
SI. No.	2475-DTJ-2012	1406-DTJ-2013
Calibrated on date	12-11-2020	07-11-2020
Calibration due date	11-11-2021	06-11-2021

-----END OF THE REPORT-----

Verified by

Authorized Signatory



(Recognised by MoEF&CC, DSIR-Government of India & Notified by FSSAI) (Approved by Drug Control Department-GoK; Certified by OHSAS-ISO 45001:2018)

No. 94, 2nd Floor, Thirumala Complex, Nagarabhavi Main Road, NGEF Layout, Nagarabhavi, Bengaluru - 560 072. Tel: 080 2318 6230 Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT



M/s. Karnataka Industrial Areas Development	Report No.	: RE/2021/00465
Board (KIADB). No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Report date	: 09/04/2021
	Ref.	: Test Request Form
	Date of Sampling	: 03/04/2021 to 04/04/2021
	Job Order No	: RE/2021/00465
Karnataka 560 001.	Date of Receipt	: 04/04/2021
	Analysis Start date	: 05/04/2021
Sample Particulars: Ambient Air Monitoring for 24 hrs.	Analysis Completed date	: 09/04/2021
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar Distric	t, Karnataka. (Ext-627.47 Acre	s).
Sample Location: Near Bhavanahalli Village.		

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , µg/m ³	60.5	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	23.7	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , μg/m ³	16.3	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	8.6	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards

Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler	
Model	Ecotech AAS-217 NL		
SI. No.	20-I-933	Ecotech AAS 217 20-I-1166	
Calibrated on date	16-12-2020	16-12-2020	
Calibration due date	15-12-2021	15-12-2021	

-----END OF THE REPORT-----

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Authorized Signatory



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No. 94, 2nd Floor, Thirumala Complex, Nagarabhavi Main Road, NGEF Layout, Nagarabhavi, Bengaluru - 560 072. Tel: 080 2318 6230 Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT



M/s. Karnataka Industrial Areas Development	Report No.	: RE/2021/00463
Board (KIADB).	Report date	: 09/04/2021
	. Ref.	: Test Request Form
No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.	Date of Sampling	: 03/04/2021 to 04/04/2021
	Job Order No	: RE/2021/00463
	Date of Receipt	: 04/04/2021
	Analysis Start date	: 05/04/2021
Sample Particulars: Ambient Air Monitoring for 24 hrs.	Analysis Completed date	: 09/04/2021
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar Dist	rict, Karnataka. (Ext-627.47	Acres).
Sample Location: Near Jakkasandra Village		

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	61.5	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	20.8	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , μg/m ³	17.6	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	9.8	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards.

Name of the equipment	Respirable Dust Sampler	Fine Particulate Sample
Model	Envirotech APM-550	Envirotech APM-550
SI. No.	2476-DTJ-2012	1159-DTG-2012
Calibrated on date	16-03-2021	16-03-2021
Calibration due date	15-03-2022	15-03-2022

----END OF THE REPORT----

Verified by

50B09/04/24 **Authorized Signatory**



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(Approved by Drug Control Department-GoK; Certified by OHSAS-ISO 45001:2018)

No. 94, 2nd Floor, Thirumala Complex, Nagarabhavi Main Road, NGEF Layout, Nagarabhavi, Bengaluru - 560 072. Tel: 080 2318 6230

Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT



date : 09/04/2021
: Test Request Form
Sampling : 02/04/2021 to 03/04/2021
er No : RE/2021/00461
Receipt : 03/04/2021
Start date : 05/04/2021
Completed date : 09/04/2021
-

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Location: Near Swastid Engineering- Project site.

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	69.8	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	25.3	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , µg/m ³	22.7	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	12.4	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards.

Details of Equipment used for monitoring		
Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler
Model	Envirotech APM-460 BL	Envirotech APM-550
Sl. No.	2475-DTJ-2012	1406-DTJ-2013
Calibrated on date	12-11-2020	07-11-2020
Calibration due date	11-11-2021	06-11-2021

-----END OF THE REPORT-----

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Signatory Authorized Signatory



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(Approved by Drug Control Department-GoK; Certified by OHSAS-ISO 45001:2018)

No. 94, 2nd Floor, Thirumala Complex, Nagarabhavi Main Road, NGEF Layout, Nagarabhavi, Bengaluru - 560 072. Tel: 080 2318 6230

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TEST REPORT



M/s. Karnataka Industrial Areas Development	Report No.	: RE/2021/00459
Board (KIADB). No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Report date	: 09/04/2021
	Ref.	: Test Request Form
	Date of Sampling	: 02/04/2021 to 03/04/2021
	Job Order No	: RE/2021/00459
Karnataka 560 001.	Date of Receipt	: 03/04/2021
	Analysis Start date	: 05/04/2021
Sample Particulars: Ambient Air Monitoring for 24 hrs.	Analysis Completed date	: 09/04/2021
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar Distric	t, Karnataka. (Ext-627.47 Acres	5).
Sample Location: Near Yarappanahalli Village	,	7.

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	62.8	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	24.6	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , µg/m ³	20.1	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	11.5	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards

Details of Equipment used for monitoring		
Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler
Model	Envirotech AAS-217 NL	Envirotech AAS 127-mini
SI. No.	18-J-739	18-J-889
Calibrated on date	16-03-2021	21-01-2021
Calibration due date	15-03-2022	20-01-2022

-----END OF THE REPORT-----

Verified by

Authorized Signatory



(Recognised by MoEF&CC, DSIR-Government of India & Notified by FSSAI) (Approved by Drug Control Department-GoK; Certified by OHSAS-ISO 45001:2018)

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TEST REPORT



M/s. Karnataka Industrial Areas Development	Report No.	: RE/2021/00457
Board (KIADB). No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Report date	: 09/04/2021
	Ref.	: Test Request Form
	Date of Sampling	: 02/04/2021 to 03/04/2021
	Job Order No	: RE/2021/00457
Karnataka 560 001.	Date of Receipt	: 03/04/2021
arriataka 500 001.	Analysis Start date	: 05/04/2021
Sample Particulars: Ambient Air Monitoring for 24 hrs.	Analysis Completed date	
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar Distric	t, Karnataka. (Ext-627.47 Acre	s).

Sample Location: Near Ramenahalli Village.

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	59.2	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	20.8	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , μg/m ³	17.4	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	10.8	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards

Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler
Model	Ecotech AAS-217 NL	Ecotech AAS 217
Sl. No.	20-1-933	20-1-1166
Calibrated on date	16-12-2020	16-12-2020
Calibration due date	15-12-2021	15-12-2021

-----END OF THE REPORT-----

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No. 94, 2nd Floor, Thirumala Complex, Nagarabhavi Main Road, NGEF Layout, Nagarabhavi, Bengaluru - 560 072. Tel: 080 2318 6230

Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT



Report No.	: RE/2021/00455
Report date	: 09/04/2021
Ref.	: Test Request Form
Date of Sampling	: 02/04/2021 to 03/04/2021
Job Order No	: RE/2021/00455
Date of Receipt	: 03/04/2021
Analysis Start date	: 05/04/2021
Analysis Completed date	: 09/04/2021
	Report date Ref. Date of Sampling Job Order No Date of Receipt

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Location: Near Mindahalli Village.

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	62.8	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , µg/m ³	21.8	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , µg/m ³	18.6	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	11.5	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards

Details of Equipment used for monitoring			
Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler	
Model	Ecotech AAS 217 NL	Ecotech AAS 217	
Sl. No.	20-1-932	20-1-1165	
Calibrated on date	16-12-2020	16-12-2020	
Calibration due date	15-12-2021	15-12-2021	

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development	Report No.	: RE/2021/00453
Board (KIADB). No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Report date	: 09/04/2021
	Ref.	: Test Request Form
	Date of Sampling	: 02/04/2021 to 03/04/2021
	Job Order No	: RE/2021/00453
Karnataka 560 001.	Date of Receipt	: 03/04/2021
	Analysis Start date	: 05/04/2021
Sample Particulars: Ambient Air Monitoring for 24 hrs.	Analysis Completed date	: 09/04/2021
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar Distric	t, Karnataka, (Ext-627.47 Acre	5).

Sample Location: Near Little Fingers India Pvt. Ltd. - Project site.

SI. No.	Parameters	Results	Limits (As Per NAAQS) For 24hrs	Protocol
1	Particulate Matter PM ₁₀ , μg/m ³	67.3	100	IS-5182 (P-23)
2	Particulate Matter PM _{2.5} , μg/m ³	25.0	60	IS-5182 (P-24)
3	Nitrogen Dioxide NO ₂ , μg/m ³	21.1	80	IS-5182 (P-06)
4	Sulphur dioxide as SO ₂ , μg/m ³	13.2	80	IS-5182 (P-02)

INFERENCE: The measured values for the above tested parameters are within as per the NAAQ Standards

Name of the equipment	Respirable Dust Sampler	Fine Particulate Sampler	
Model	Envirotech APM-460 BL	Envirotech APM-550	
Sl. No.	2475-DTJ-2012	1406-DTJ-2013	
Calibrated on date	12-11-2020	07-11-2020	
Calibration due date	11-11-2021	06-11-2021	

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

: RE/2021/00468
: 09/04/2021
: Test Request Form
: 03/04/2021 to 04/04/2021
: RE/2021/00468
: 04/04/2021
: 09/04/2021
: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
DE /2024 /00 is 0	Near Dombarahalli Village	6:01 AM to 10:00 PM	43.8	66.5	54.0
KE/2021/00468		10:01 PM to 6:00 AM	35.6	55.9	44.6

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear.

As per CPCB Standards,
Report Status: - The measured values for the above locations are within the standards.

------END OF THE REPORT------

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No.	: RE/2021/00466
Report date	: 09/04/2021
Ref.	: Test Request Form
Date of Sampling	: 03/04/2021 to 04/04/2021
Job Order No	: RE/2021/00466
Date of Receipt	: 04/04/2021
Analysis Start date	: 09/04/2021
Analysis Completed date	: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
RE/2021/00466	6 Near Bhavanahalli Village	6:01 AM to 10:00 PM	45.6	63.5	53.8
		10:01 PM to 6:00 AM	37.3	52.7	44.3

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- · Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- · A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear.

As per CPCB Standards,
Report Status: - The measured values for the above locations are within the standards.

------END OF THE REPORT------

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No.	: RE/2021/00464
Report date	: 09/04/2021
Ref.	: Test Request Form
Date of Sampling	: 03/04/2021 to 04/04/2021
Job Order No	: RE/2021/00464
Date of Receipt	: 04/04/2021
Analysis Start date	: 09/04/2021
Analysis Completed date	: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
RE/2021/00464	1/00464 Near Jakkasandra Village —	6:01 AM to 10:00 PM	46.2	62.9	53.9
		10:01 PM to 6:00 AM	38.8	49.1	43.7

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear.

INFERENCE

As per CPCB Standards,
Report Status: - The measured values for the above locations are within the standards.

------END OF THE REPORT------

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No.		: RE/2021/00462
Report date	е	: 09/04/2021
Ref.		: Test Request Form
Date of Sar	npling	: 02/04/2021 to 03/04/2021
Job Order I	Vo -	: RE/2021/00462
Date of Red	ceipt	: 03/04/2021
Analysis Sta	art date	: 09/04/2021
Analysis Co	mpleted date	: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres). Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
DE /2021 /00462	Near Swastid Engineering- Project site	6:01 AM to 10:00 PM	57.1	77.6	66.6
RE/2021/00462		10:01 PM to 6:00 AM	48.0	60.6	53.9

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear

As per CPCB Standards, **INFERENCE** Report Status: - The measured values for the above locations are within the standards.

-----END OF THE REPORT------

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No.	: RE/2021/00460
Report date	: 09/04/2021
Ref.	: Test Request Form
Date of Sampling	: 02/04/2021 to 03/04/2021
Job Order No	: RE/2021/00460
Date of Receipt	: 03/04/2021
Analysis Start date	: 09/04/2021
Analysis Completed date	: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
RE/2021/00460	Near Yarappanahalli	6:01 AM to 10:00 PM	52.7	59.3	55.9
NL/2021/00400	Village.	10:01 PM to 6:00 AM	42.7	48.1	45.3

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear

As per CPCB Standards,
Report Status: - The measured values for the above locations are within the standards.

------END OF THE REPORT------

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

	Report No.	: RE/2021/00458
	Report date	: 09/04/2021
	Ref.	: Test Request Form
	Date of Sampling	: 02/04/2021 to 03/04/2021
	Job Order No	: RE/2021/00458
	Date of Receipt	: 03/04/2021
	Analysis Start date	: 09/04/2021
	Analysis Completed date	: 09/04/2021
d		

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres). Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
DE /2021 /004E9	New Personshall William	6:01 AM to 10:00 PM	50.3	59.2	54.6
RE/2021/00458	Near Ramenahalli Village	10:01 PM to 6:00 AM	39.5	47.5	43.3

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- · Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear

INFERENCE As per CPCB Standards,
Report Status: - The measured values for the above locations are within the standards.

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No.	: RE/2021/00456
Report date	: 09/04/2021
Ref.	: Test Request Form
Date of Sampling	: 02/04/2021 to 03/04/2021
Job Order No	: RE/2021/00456
Date of Receipt	: 03/04/2021
Analysis Start date	: 09/04/2021
Analysis Completed date	: 09/04/2021
Analysis Completed date	: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres). Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
DE /2024 /004EC	Near Mindahalli	6:01 AM to 10:00 PM	48.9	57.9	53.2
RE/2021/00456	Village	10:01 PM to 6:00 AM	38.6	45.2	41.8

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- · A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear

INFERENCE As per CPCB Standards,
Report Status: - The measured values for the above locations are within the standards.

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board (KIADB).

No. 49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No.	: RE/2021/00454
Report date	: 09/04/2021
Ref.	: Test Request Form
Date of Sampling	: 02/04/2021 to 03/04/2021
Job Order No	: RE/2021/00454
Date of Receipt	: 03/04/2021
Analysis Start date	: 09/04/2021
Analysis Completed date	: 09/04/2021

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext-627.47 Acres).

Sample Particulars: Noise Monitoring for 24 hrs.

J.O.No.	Location	Time Frequency	L min dB(A)	L max dB(A)	L eq dB(A)
RE/2021/00454 India Pvt. Ltd Project	6:01 AM to 10:00 PM	55.4	78.1	66.0	
NL/2021/00454	Site	10:01 PM to 6:00 AM	46.9	61.0	53.5

Note: Noise Level Stipulated by KSPCB for Residential area is 55 dB (A) (During day time) and 45 dB(A) (During night time), For Commercial area 65 dB (A) (During day time) and 55 dB(A) (During night time), For Industrial area 75 dB (A) (During day time) and 70 dB(A) (During night time)

- Day Time is reckoned between 6 A.M and 10 P.M.
- Night Time is reckoned between 10 P.M and 6 A.M.
- Leq: It is energy mean of the noise level over a specified period.
- *-dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- A "decibel" is a unit in which noise is measured.
- "A", in dB (A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to Frequency response characteristics of the human ear

As per CPCB Standards. **INFERENCE** Report Status: - The measured values for the above locations are within the standards. -----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00445
	Report date	: 13/04/2021
(KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
Race Course Road, Bengaluru,	Job Order No	: RE/2021/00445
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Areas Jakkasandra Industrial Areas Volar District Varna	staka (Ext. 627 47 A)	

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Little Fingers India- Project Site.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desc	ription: Colorless liquid.				
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	7.78	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.2	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	36.8	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	230.2	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	55.3	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	21.6	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	776.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	42.1	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	9.2	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	0.6	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019

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Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT

M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00445
	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form : 03/04/2021 : RE/2021/00445
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	
Race Course Road, Bengaluru,	Job Order No	
Karnataka 560 001.	Date of Sampling	: 03/04/2021
Natification 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karna	taka. (Ext- 627.47 A).	
Sample Particulars: One sample of Borewell Water - Near Little Fingers India-	Project Site.	

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	3.1	2		APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00446
•	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	: 03/04/2021
ace Course Road, Bengaluru,	Job Order No	: RE/2021/00446
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karna	taka. (Ext- 627.47 A).	3.10

Sample Particulars: One sample of Borewell Water - Near Mindahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desc	ription: Colorless liquid.				
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	8.27	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.3	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	99.97	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	193.3	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	58.9	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	11.18	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	228.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	42.4	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	5.9	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	0.4	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00446
	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form : 03/04/2021
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	
Race Course Road, Bengaluru,	Job Order No	: RE/2021/00446
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat	aka. (Ext- 627.47 A).	

Sample Particulars: One sample of Borewell Water - Near Mindahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	4.1	-	-	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00447
	Report date : 13,	: 13/04/2021
(KIADB).	Reference	: Test Request Form
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	: 03/04/2021
ace Course Road, Bengaluru,	Job Order No	: RE/2021/00447
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Dombarahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desc	ription: Colorless liquid.		E		
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	7.65	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.2	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	209.9	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	147.3	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	25.0	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	20.1	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	676.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	42.3	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	5.6	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	0.2	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019

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M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00447
	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form
o.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	: 03/04/2021 : RE/2021/00447
Race Course Road, Bengaluru,	Job Order No	
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat	aka. (Ext- 627.47 A).	

Sample Particulars: One sample of Borewell Water - Near Dombarahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	3.2	7.	-	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

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Report No.

TEST REPORT



: RE/2021/00448

M/s. Karnataka Industrial Areas Development Board	
(KIADB).	

No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001. Report date : 13/04/2021

Reference : Test Request Form

Sample receipt date : 03/04/2021

Job Order No : RE/2021/00448

Date of Sampling : 03/04/2021

Analysis start date : 05/04/2021

Analysis completion date : 13/04/2021

Sampling Protocol : E/WP/65

Sample Qty: 2 Ltrs Sampling Protocol Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Yarrappanahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desci	ription: Colorless liquid.		10		
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	8.38	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.1	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	194.9	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	184.9	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	55.3	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	11.2	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	507.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	42.4	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	5.2	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	0.3	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019

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Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT

M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00448
	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	: 03/04/2021
Race Course Road, Bengaluru,	Job Order No	: RE/2021/00448
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karna	taka. (Ext- 627.47 A).	
	Tanana and	

Sample Particulars: One sample of Borewell Water - Near Yarrappanahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	3.4	-	+	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

-----END OF THE REPORT-----

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TEST REPORT

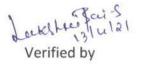


M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00449
A STATE OF THE STA	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	: 03/04/2021
e Course Road, Bengaluru,	Job Order No	: RE/2021/00449
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Association of Industrial Association Volar District Variation	taka (Ext. 627.47.A)	

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Swastid Engineering- Project Site.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desci	ription: Colorless liquid.				
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	7.70	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.2	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	159.9	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	193.3	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	58.98	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	11.2	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	419.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	42.8	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	5.6	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	0.3	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019



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TEST REPORT

M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00449
	Report date	: 13/04/2021
(KIADB).	Reference	: Test Request Form
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Sample receipt date	: 03/04/2021
Race Course Road, Bengaluru,	Job Order No	: RE/2021/00449
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat	aka. (Ext- 627.47 A).	

Sample Particulars: One sample of Borewell Water - Near Swastid Engineering- Project Site.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	4.1	÷.	-	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00450
(KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.	Report date	: 13/04/2021
	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00450
	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karna	etaka (Ext- 627 47 A).	

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Bhavanahalli Village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desci	ription: Colorless liquid.		A		
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	7.94	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.2	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	119.9	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	207.1	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	58.98	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	14.5	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	286.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	32.4	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	5.9	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	BDL	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019

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Report No.	: RE/2021/00450
Report date	: 13/04/2021
Reference	: Test Request Form
Sample receipt date	: 03/04/2021
Job Order No	: RE/2021/00450
Date of Sampling	: 03/04/2021
Analysis start date	: 05/04/2021
Analysis completion date	: 13/04/2021
Sampling Protocol	: E/WP/65
	Report date Reference Sample receipt date Job Order No Date of Sampling Analysis start date Analysis completion date

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Bhavanahalli village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	3.1		15/1	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

-----END OF THE REPORT-----

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00451
(KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.	Report date	: 13/04/2021
	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00451
	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area Kolar District Karna	taka (Ext-627.47.4)	

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Lake Water - Near Bhavanahalli village.

SI. Tests	Results	Protocol
Description: Colorless liquid.		
1 Color (hazen units)	<2.0	IS 3025 (Part- 4): 1983 Reaff.2017
2 Odour	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3 pH Value	8.04	IS 3025 (Part - 11): 1983 Reaff.2017
4 Turbidity, NTU	0.4	IS 3025 (Part - 10): 1984 Reaff.2017
5 Chloride as Cl, mg/L	179.94	IS 3025 (Part – 32): 1988 Reaff.2019
6 Total hardness as CaCO ₃ , mg/L	303.8	IS 3025 (Part - 21): 2009 Reaff.2019
7 Calcium as Ca, mg/L	70.04	IS 3025 (Part - 40): 1991 Reaff.2019
8 Magnesium as Mg, mg/L	31.29	IS 3025 (Part – 46): 1994 Reaff.2019
9 Total dissolved Solids, mg/L	437.0	IS 3025 (Part – 16): 1984 Reaff.2017
10 Sulphate as SO ₄ , mg/L	42.8	IS 3025 (Part - 24): 1986 Reaff.2019
11 Nitrate as NO ₃ , mg/L	5.6	APHA 23 rd Edition
12 Fluoride as F, mg/L	0.3	APHA 23 rd Edition
13 Iron as Fe, mg/L	BDL	APHA 23 rd Edition
14 Lead as Pb, mg/L	BDL	IS 3025 (Part - 47): 1994 Reaff 2019
15 Copper as Cu, mg/L	BDL	APHA 23 rd Edition
16 Zinc as Zn, mg/L	BDL	IS 3025 (Part - 49): 1994 Reaff 2019

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board (KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.	Report No.	: RE/2021/00451
	Report date	: 13/04/2021
	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00451
	Date of Sampling	: 03/04/2021
Namataka 300 001.	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karna	taka. (Ext- 627.47 A).	
Sample Particulars: One sample of Lake Water - Near Bhavanahalli village.		

SI. No.	Tests	Results	Protocol
17	Chromium as Cr, mg/L	BDL	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	3.2	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00452
	Report date	: 13/04/2021
(KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00452
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 2 Ltrs	Sampling Protocol	: E/WP/65

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One sample of Borewell Water - Near Jakkasandra village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
Desc	ription: Colorless liquid.				
1	Color (hazen units)	<2.0	5	15	IS 3025 (Part- 4): 1983 Reaff.2017
2	Odour	Agreeable	Agreeable	Agreeable	IS 3025 (Part - 5): 1983 Reaff.2018
3	pH Value	8.07	6.5 - 8.5	No relaxation	IS 3025 (Part - 11): 1983 Reaff.2017
4	Turbidity, NTU	0.1	1	5	IS 3025 (Part - 10): 1984 Reaff.2017
5	Chloride as Cl, mg/L	164.9	250	1000	IS 3025 (Part - 32): 1988 Reaff.2019
6	Total hardness as CaCO ₃ , mg/L	303.9	200	600	IS 3025 (Part - 21): 2009 Reaff.2019
7	Calcium as Ca, mg/L	88.5	75	200	IS 3025 (Part - 40): 1991 Reaff.2019
8	Magnesium as Mg, mg/L	20.1	30	100	IS 3025 (Part - 46): 1994 Reaff.2019
9	Total dissolved Solids, mg/L	480.0	500	2000	IS 3025 (Part - 16): 1984 Reaff.2017
10	Sulphate as SO ₄ , mg/L	40.8	200	400	IS 3025 (Part - 24): 1986 Reaff.2019
11	Nitrate as NO ₃ , mg/L	5.6	45.0	No relaxation	APHA 23 rd Edition
12	Fluoride as F, mg/L	0.6	1.0	1.5	APHA 23 rd Edition
13	Iron as Fe, mg/L	BDL	0.3	No relaxation	APHA 23 rd Edition
14	Lead as Pb, mg/L	BDL	0.01	No relaxation	IS 3025 (Part - 47): 1994 Reaff 2019
15	Copper as Cu, mg/L	BDL	0.05	1.5	APHA 23 rd Edition
16	Zinc as Zn, mg/L	BDL	5	15	IS 3025 (Part - 49): 1994 Reaff 2019

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TEST REPORT

	: RE/2021/00452
Report date	: 13/04/2021
Reference	: Test Request Form
Sample receipt date	: 03/04/2021
Job Order No	: RE/2021/00452
Date of Sampling	: 03/04/2021
Analysis start date	: 05/04/2021
Analysis completion date	: 13/04/2021
Sampling Protocol	: E/WP/65
	Reference Sample receipt date Job Order No Date of Sampling Analysis start date Analysis completion date

Sample Particulars: One sample of Borewell Water - Near Jakkasandra village.

SI. No.	Tests	Results	Maximum Desirable Limit IS 10500: 2012	Maximum Permissible Limit IS 10500: 2012	Protocol
17	Chromium as Cr, mg/L	BDL	0.05	No relaxation	APHA 23 rd Edition
18	Dissolved oxygen, mg/L	3.2	-	-	APHA 23 rd Edition

Note: BDL for Cr: 0.05, Fe: 0.05, Pb:0.01, Zn:0.05, SO₄: 5.0, NO₃:5.0, F:0.1.

Remarks: The given water sample complies to IS: 10500-2012 specification for above tested parameters.

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00437
(KIADB).	Report date	: 13/04/2021
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Reference	: Test Request Form
Race Course Read Report Willig, Khanija Bhavan,	Sample receipt date	: 03/04/2021
Race Course Road, Bengaluru, Karnataka 560 001.	Job Order No	: RE/2021/00437
	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
	Analysis completion date	: 13/04/2021
Sample Qty: 1kg	Sampling Protocol	: E/WP/77

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near little fingers India Pvt. Ltd. - Project Site.

SI. No.	Test	Result	Protocol
Desci	ription: Brown Colored Soil.		
1	pH (20% Suspension)	7.31	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	226.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as CI, mg/Kg	490.0	Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %		Practical Manual for Hands on training GKVK Bengaluru
5		0.6	Practical Manual for Hands on training GKVK Bengaluru
	Organic Matter, %	2.22	Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	711.8	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	98.4	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board Report No. : RE/2021/00437 (KIADB). Report date : 13/04/2021 No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Reference : Test Request Form Sample receipt date : 03/04/2021 Race Course Road, Bengaluru, Job Order No : RE/2021/00437 Karnataka 560 001 Date of Sampling : 03/04/2021 Analysis start date : 05/04/2021 Analysis completion date : 13/04/2021 Sample Qty: 1kg

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near little fingers India Pvt. Ltd. - Project Site.

SI. No.	Test	Result	Protocol
8	Colour	Brown	Practical Manual Saul
9	Sulphur as S, mg/Kg	4.8	Practical Manual for Hands on training GKVK Bengaluru
10	Nitrogen as N, %		Practical Manual for Hands on training GKVK Bengaluru
11		0.004	Practical Manual for Hands on training GKVK Bengaluru
	Phosphorous as P, mg/Kg	3.43	Practical Manual for Hands on training GKVK Bengaluru
12	Potassium as K, mg/Kg	307.7	Practical Manual for Hands on training GKVK Bengaluru
13	Copper as Cu, mg/Kg	3.98	Practical Manual for Hands on training GRAK Bengaluru
14	Chromium as Cr, mg/Kg	11.3	Practical Manual for Hands on training GKVK Bengaluru
15	Zinc as Zn, mg/Kg		Practical Manual for Hands on training GKVK Bengaluru
16	Lead as Pb, mg/Kg	21.3	Practical Manual for Hands on training GKVK Bengaluru
10000		4.58	Practical Manual for Hands on training GKVK Bengaluru
17	Nickel as Ni, mg/Kg	7.9	Practical Manual for Hands on training GKVK Bengaluru
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00438
(KIADB).	Report date	: 13/04/2021
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00438
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
Sample Qty: 1kg	Analysis completion date	: 13/04/2021
	Sampling Protocol	: E/WP/77
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat Sample Particulars: One Soil Sample-Near Mindahalli Village	aka. (Ext- 627.47 A).	W

SI. No.	Test	Result	Protocol
Desc	ription: Brown Colored Soil.		
1	pH (20% Suspension)	6.95	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	48.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as CI, mg/Kg	555.8	Practical Manual for Hands on training GRVK Bengaluru
4	Moisture, %	2.12	Practical Manual for Hands on training GKVK Bengaluru
5	Organic Matter, %		Practical Manual for Hands on training GKVK Bengaluru
6		0.79	Practical Manual for Hands on training GKVK Bengaluru
0	Calcium as Ca, mg/Kg	261.1	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	144.0	Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board Report No. : RE/2021/00438 Report date (KIADB). : 13/04/2021 Reference No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, : Test Request Form Sample receipt date : 03/04/2021 Race Course Road, Bengaluru, Job Order No : RE/2021/00438 Karnataka 560 001. Date of Sampling : 03/04/2021 Analysis start date : 05/04/2021 Analysis completion date : 13/04/2021 Sample Qty: 1kg Sampling Protocol : E/WP/77

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Mindahalli Village.

SI. No.	Test	Result	Protocol
8	Colour	Brown	Practical Manual for Hands on training GKVK Bengaluru
9	Sulphur as S, mg/Kg	5.4	Practical Manual for Hands on training GKVK Bengaluru
10	Nitrogen as N, %	0.004	Practical Manual for Hands on training GKVK Bengaluru
11	Phosphorous as P, mg/Kg	3.43	Practical Manual for Hands on training GKVK Bengaluru
12	Potassium as K, mg/Kg	298.01	Practical Manual for Hands on training GKVK Bengaluru
13	Copper as Cu, mg/Kg	3.34	Practical Manual for Hands on training GKVK Bengaluru
14	Chromium as Cr, mg/Kg	9.22	Practical Manual for Hands on training GKVK Bengaluru
15	Zinc as Zn, mg/Kg	18.29	Practical Manual for Hands on training GKVK Bengaluru
16	Lead as Pb, mg/Kg	7.56	Practical Manual for Hands on training GKVK Bengaluru
17	Nickel as Ni, mg/Kg	3.28	Practical Manual for Hands on training GRVK Bengaluru
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00439
(KIADB).	Report date	: 13/04/2021
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Reference	: Test Request Form
Race Course Road, Bengaluru,	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00439
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
Sample Qty: 1kg	Analysis completion date	
	Sampling Protocol	: E/WP/77
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat	aka. (Ext- 627.47 A).	
Sample Particulars: One Soil Sample- Near Ramenahalli Village.		

SI. No.	Test	Result	Protocol
Desci	ription: Brown Colored Soil.		
1	pH (20% Suspension)	7.26	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	102.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as Cl, mg/Kg	345.1	Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %	0.22	Practical Manual for Hands on training GKVK Bengaluru
5	Organic Matter, %	1.10	Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	attrament.	Practical Manual for Hands on training GKVK Bengaluru
7		323.1	Practical Manual for Hands on training GKVK Bengaluru
/	Magnesium Mg, mg/Kg	13.2	Practical Manual for Hands on training GKVK Bengaluru

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Sample Qty: 1kg

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board (KIADB).

No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No. : RE/2021/00439 Report date : 13/04/2021 Reference : Test Request Form Sample receipt date : 03/04/2021 Job Order No : RE/2021/00439 Date of Sampling : 03/04/2021 Analysis start date : 05/04/2021 Analysis completion date : 13/04/2021 Sampling Protocol : E/WP/77

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Ramenahalli Village.

SI. No.	Test	Result	Protocol
8	Colour	Brown	Practical Manual for Hands on training GKVK Bengaluru
9	Sulphur as S, mg/Kg	4.85	Practical Manual for Hands on training GKVK Bengaluru
10	Nitrogen as N, %	0.008	Practical Manual for Hands on training GKVK Bengaluru
11	Phosphorous as P, mg/Kg	2.66	Practical Manual for Hands on training GKVK Bengaluru
12	Potassium as K, mg/Kg	302.1	Practical Manual for Hands on training GKVK Bengaluru
13	Copper as Cu, mg/Kg	3.80	Practical Manual for Hands on training GKVK Bengaluru
14	Chromium as Cr, mg/Kg	6.25	Practical Manual for Hands on training GKVK Bengaluru
15	Zinc as Zn, mg/Kg	21.16	Practical Manual for Hands on training GKVK Bengaluru
16	Lead as Pb, mg/Kg	3.94	Practical Manual for Hands on training GKVK Bengaluru
17	Nickel as Ni, mg/Kg	3.68	Practical Manual for Hands on training GRVK Bengaluru
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00440
(KIADB).	Report date	: 13/04/2021
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Reference	: Test Request Form
Race Course Road, Bengaluru,	Sample receipt date	: 03/04/2021
Karnataka 560 001.	Job Order No	: RE/2021/00440
Ramataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
Sample Qty: 1kg	Analysis completion date	: 13/04/2021
	Sampling Protocol	: E/WP/77
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat Sample Particulars: One Soil Sample- Near Yarrappanahalli Village.	aka. (Ext- 627.47 A).	

SI. No.	Test	Result	Protocol
Desc	ription: Brown Colored Soil.		
1	pH (20% Suspension)	7.84	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	137.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as Cl, mg/Kg	497.8	Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %	0.89	Practical Manual for Hands on training GKVK Bengaluru
5	Organic Matter, %	0.76	Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	394.2	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	78.0	Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board (KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Report No.	: RE/2021/00440
	Report date	: 13/04/2021
	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00440
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
Sample Qty: 1kg	Analysis completion date	: 13/04/2021
	Sampling Protocol	: E/WP/77
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karna	taka. (Ext- 627.47 A).	

Sample Particulars: One Soil Sample- Near Yarrappanahalli Village.

SI. No.	Test	Result	Protocol	
8	Colour	Brown	Practical Manual for Hands on training CVVV D	
9	Sulphur as S, mg/Kg	12.57	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru	
10	Nitrogen as N, %	0.003	Practical Manual for Hands on training GKVK Bengaluru	
11	Phosphorous as P, mg/Kg	1.52	Practical Manual for Hands on training GKVK Bengaluru	
12	Potassium as K, mg/Kg	250.3	Practical Manual for Hands on training GKVK Bengaluri	
13	Copper as Cu, mg/Kg	6.09	Practical Manual for Hands on training GKVK Bengaluru	
14	Chromium as Cr, mg/Kg	19.69	Practical Manual for Hands on training GKVK Bengaluru	
15	Zinc as Zn, mg/Kg	19.15	Practical Manual for Hands on training GKVK Bengaluru	
16	Lead as Pb, mg/Kg	8.53	Practical Manual for Hands on training GKVK Bengaluru	
17	Nickel as Ni, mg/Kg	7.80	Practical Manual for Hands on training GKVK Bengaluru	
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru	

-----END OF THE REPORT-----

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Email: info@robustmaterials.com Website: www.robustmaterials.com

TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00441
(KIADB). No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru,	Report date	: 13/04/2021
	Reference	: Test Request Form
	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00441
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
Sample Qty: 1kg	Analysis completion dat	te : 13/04/2021
Name of the Industrial Areas lakkers and a land at the	Sampling Protocol	: E/WP/77

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Swastid Engineering- Project Site.

SI. No.	Test	Result	Protocol
Desc	ription: Brown Colored Soil.		
1	pH (20% Suspension)	8.09	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	89.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as Cl, mg/Kg	652.6	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %	1.68	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru
5	Organic Matter, %	2.7	Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	388.4	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	96.0	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru

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Sample Qty: 1kg

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board Report No. : RE/2021/00441 Report date : 13/04/2021 No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Reference : Test Request Form Sample receipt date : 03/04/2021 Race Course Road, Bengaluru, Job Order No : RE/2021/00441 Karnataka 560 001 Date of Sampling : 03/04/2021 Analysis start date : 05/04/2021 Analysis completion date : 13/04/2021

Sampling Protocol Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Swastid Engineering- Project Site.

SI. No.	Test	Result	Protocol
8	Colour	Brown	Practical Manual for Hands on training GKVK Bengaluru
9	Sulphur as S, mg/Kg	4.54	Practical Manual for Hands on training GKVK Bengaluru
10	Nitrogen as N, %	0.006	Practical Manual for Hands on training GKVK Bengaluru
11	Phosphorous as P, mg/Kg	5.36	Practical Manual for Hands on training GKVK Bengaluru
12	Potassium as K, mg/Kg	142.93	Practical Manual for Hands on training GKVK Bengaluru
13	Copper as Cu, mg/Kg	4.73	Practical Manual for Hands on training GKVK Bengaluru
14	Chromium as Cr, mg/Kg	5.32	Practical Manual for Hands on training GKVK Bengaluru
15	Zinc as Zn, mg/Kg	31.41	Practical Manual for Hands on training GKVK Bengaluru
16	Lead as Pb, mg/Kg	9.52	Practical Manual for Hands on training GKVK Bengaluru
17	Nickel as Ni, mg/Kg	4.93	Practical Manual for Hands on training GKVK Bengaluru
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru

-----END OF THE REPORT-----

: E/WP/77

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TEST REPORT



NO.49, 4th & 5th Floor Fast Wing Khaniia Phayan	Report date Reference	: RE/2021/00442 : 13/04/2021
No.49, 4th & 5th Floor Fast Wing Khaniia Phayan	Reference	
Troing, Fill & Still 1001, East Wille, Klianila Bhavan	reference	: Test Request Form
Race Course Road, Bengaluru,	Sample receipt date	: 03/04/2021
	Job Order No	: RE/2021/00442
Karnataka 560 001.	Date of Sampling	: 03/04/2021
	Analysis start date	: 05/04/2021
Some Is On Al	Analysis completion date	: 13/04/2021
	Sampling Protocol	: E/WP/77

Sample Particulars: One Soil Sample- Near Jakkasandra village.

SI. No.	Test	Result	Protocol
Desci	ription: Brown Colored Soil.		
1	pH (20% Suspension)	7.76	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	326.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as CI, mg/Kg	894.9	Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %	1.09	Practical Manual for Hands on training GKVK Bengaluru
5	Organic Matter, %	1.49	Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	728.3	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	26.4	Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board (KIADB).

No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001.

Report No. : RE/2021/00442 Report date : 13/04/2021 Reference : Test Request Form Sample receipt date : 03/04/2021 Job Order No : RE/2021/00442 Date of Sampling : 03/04/2021 Analysis start date : 05/04/2021 Analysis completion date : 13/04/2021 Sampling Protocol : E/WP/77

Sample Qty: 1kg

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Jakkasandra village.

SI. No.	Test	Result	Protocol	
8	Colour	Brown	Practical Manual for Hands on training GKVK Bengaluru	
9	Sulphur as S, mg/Kg	17.8	Practical Manual for Hands on training GKVK Bengaluru	
10	Nitrogen as N, %	0.03	Practical Manual for Hands on training GKVK Bengaluru	
11	Phosphorous as P, mg/Kg	1.43	Practical Manual for Hands on training GKVK Bengaluru	
12	Potassium as K, mg/Kg	32.06	Practical Manual for Hands on training GKVK Bengaluru	
13	Copper as Cu, mg/Kg	4.07	Practical Manual for Hands on training GKVK Bengaluru	
14	Chromium as Cr, mg/Kg	5.68	Practical Manual for Hands on training GKVK Bengaluru	
15	Zinc as Zn, mg/Kg	25.96	Practical Manual for Hands on training GKVK Bengaluru	
16	Lead as Pb, mg/Kg	7.11	Practical Manual for Hands on training GKVK Bengaluru	
17	Nickel as Ni, mg/Kg	6.13	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru	
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru	

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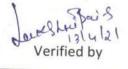
TEST REPORT



Report No.	: RE/2021/00443
Report date	: 13/04/2021
Reference	: Test Request Form
Sample receipt date	: 03/04/2021
Job Order No	: RE/2021/00443
Date of Sampling	: 03/04/2021
Analysis start date	: 05/04/2021
Analysis completion date	: 13/04/2021
Sampling Protocol	: E/WP/77
Karnataka. (Ext- 627.47 A).	
	Report date Reference Sample receipt date Job Order No Date of Sampling Analysis start date Analysis completion date

Sample Particulars: One Soil Sample- Near Bhavanahalli village.

SI. No.	Test	Result	Protocol
Desci	ription: Brown Colored Soil.		
1	pH (20% Suspension)	7.90	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	272.0	Practical Manual for Hands on training GKVK Bengaluru
3	Chloride as CI, mg/Kg	218.97	Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %	3.72	Practical Manual for Hands on training GKVK Bengaluru
5	Organic Matter, %	0.45	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	474.6	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	26.4	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru



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Report No.

TEST REPORT

M/s. Karnataka Industrial Areas Development Board (KIADB).

No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, Race Course Road, Bengaluru, Karnataka 560 001. Report date : 13/04/2021

Reference : Test Request Form

Sample receipt date : 03/04/2021

Job Order No : RE/2021/00443

Date of Sampling : 03/04/2021

Analysis start date : 05/04/2021

Analysis completion date : 13/04/2021

Sampling Protocol : E/WP/77

: RE/2021/00443

Sample Qty: 1kg

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Bhavanahalli village.

SI. No.	Test	Result	Protocol
8	Colour	Brown	Practical Manual for Hands on training GKVK Bengaluru
9	Sulphur as S, mg/Kg	5.01	Practical Manual for Hands on training GKVK Bengaluru
10	Nitrogen as N, %	0.01	Practical Manual for Hands on training GKVK Bengaluru
11	Phosphorous as P, mg/Kg	2.15	Practical Manual for Hands on training GKVK Bengaluru
12	Potassium as K, mg/Kg	45.60	Practical Manual for Hands on training GKVK Bengaluru
13	Copper as Cu, mg/Kg	8.72	Practical Manual for Hands on training GKVK Bengaluru
14	Chromium as Cr, mg/Kg	67.2	Practical Manual for Hands on training GKVK Bengaluru
15	Zinc as Zn, mg/Kg	18.9	Practical Manual for Hands on training GKVK Bengaluru
16	Lead as Pb, mg/Kg	4.79	Practical Manual for Hands on training GKVK Bengaluru
17	Nickel as Ni, mg/Kg	4.5	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru
18	Cadmium as Cd, mg/Kg	<0.1	Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT



M/s. Karnataka Industrial Areas Development Board	Report No.	: RE/2021/00444	
(KIADB).	Report date	: 13/04/2021	
No.49, 4th & 5th Floor, East Wing, Khanija Bhavan,	Reference	: Test Request Form	
Race Course Road, Bengaluru,	Sample receipt date	: 03/04/2021	
	Job Order No	: RE/2021/00444	
Karnataka 560 001.	Date of Sampling	: 03/04/2021	
	Analysis start date	: 05/04/2021	
Sample Qty: 1kg	Analysis completion date	letion date : 13/04/2021	
	Sampling Protocol	: E/WP/77	
Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnat	aka. (Ext- 627.47 A).		
Sample Particulars: One Soil Sample- Near Dombarahalli Village.			

SI. No.	Test	Result	Protocol
Desci	ription: Brown Colored Soil.		
1	pH (20% Suspension)	7.81	Practical Manual for Hands on training GKVK Bengaluru
2	Conductivity, µmhos/cm	20.0	Practical Manual for Hands on training GRVK Bengaluru
3	Chloride as Cl, mg/Kg	506.7	Practical Manual for Hands on training GKVK Bengaluru
4	Moisture, %		Practical Manual for Hands on training GKVK Bengaluru
5		2.61	Practical Manual for Hands on training GKVK Bengaluru
-	Organic Matter, %	0.65	Practical Manual for Hands on training GKVK Bengaluru
6	Calcium as Ca, mg/Kg	263.5	Practical Manual for Hands on training GKVK Bengaluru
7	Magnesium Mg, mg/Kg	265.2	Practical Manual for Hands on training GKVK Bengaluru

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TEST REPORT

M/s. Karnataka Industrial Areas Development Board Report No. : RE/2021/00444 Report date : 13/04/2021 Reference No.49, 4th & 5th Floor, East Wing, Khanija Bhavan, : Test Request Form Sample receipt date : 03/04/2021 Race Course Road, Bengaluru, Job Order No : RE/2021/00444 Karnataka 560 001. Date of Sampling : 03/04/2021 Analysis start date : 05/04/2021 Analysis completion date : 13/04/2021 Sample Qty: 1kg Sampling Protocol : E/WP/77

Name of the Industrial Area: Jakkasandra Industrial Area, Kolar District, Karnataka. (Ext- 627.47 A).

Sample Particulars: One Soil Sample- Near Dombarahalli Village.

Test	Result	Protocol
Colour	Brown	Practical Manual for Hands on training GKVK Bengaluru
Sulphur as S, mg/Kg	6.53	Practical Manual for Hands on training GKVK Bengaluru
	0.007	Practical Manual for Hands on training GKVK Bengaluru
	1.13	Practical Manual for Hands on training GKVK Bengaluru
	119.0	Practical Manual for Hands on training GKVK Bengaluru
	6.9	Practical Manual for Hands on training GKVK Bengaluru
Chromium as Cr, mg/Kg	25.7	Practical Manual for Hands on training GKVK Bengaluru
Zinc as Zn, mg/Kg	33.9	Practical Manual for Hands on training GKVK Bengaluru
	70.00000	Practical Manual for Hands on training GKVK Bengaluru
		Practical Manual for Hands on training GKVK Bengaluru
		Practical Manual for Hands on training GKVK Bengaluru Practical Manual for Hands on training GKVK Bengaluru
	Colour Sulphur as S, mg/Kg Nitrogen as N, % Phosphorous as P, mg/Kg Potassium as K, mg/Kg Copper as Cu, mg/Kg Chromium as Cr, mg/Kg	Colour Brown Sulphur as S, mg/Kg 6.53 Nitrogen as N, % 0.007 Phosphorous as P, mg/Kg 1.13 Potassium as K, mg/Kg 119.0 Copper as Cu, mg/Kg 6.9 Chromium as Cr, mg/Kg 25.7 Zinc as Zn, mg/Kg 33.9 Lead as Pb, mg/Kg 5.10 Nickel as Ni, mg/Kg 7.99

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