

To,
The Director
Regional Office (West Central Zone),
Ministry of Environment, Forest and Climate Change,
Ground Floor, East wing,
New Secretariat Building,
Civil lane, Nagpur-440001

Subject: Half-yearly Compliance Report:
October 2023 to March 2024

Project ECOHOMES TOWNSHIP LLP
Proposed Residential cum "Miracle" located on Survey No.
32A, 36C, 37 at Village Ranjnoli, Taluka Bhiwandi, Dist. Thane

EC No. SIA/MH/MIS/244299/2021 Dated. 10th June, 2022

Dear Sir,

We are submitting half-yearly Compliance Report (hard & soft copy) in respect of the stipulated terms and conditions of 'Prior Environmental Clearance' as specified in 'Environment Clearance' Notification Clause No. 10(i).

Thanking you,
Yours faithfully,

ECOHOMES TOWNSHIPS LLP

Sachin
04/04/2024
Project Proponent



Enclosure:

Hard copy of the compliance and monitoring report

CC copy to:

1. Regional officer, Maharashtra Pollution Control Board, Kalyan S.R.O-I
2. Member Secretary, Maharashtra Pollution Control Board, Sion, Mumbai
3. Member Secretary, State Environmental Impact Assessment Authority, Govt. of Maharashtra, Mumbai

Sachin

ECOHOMES TOWNSHIP LLP
Environmental Clearance
Compliance Report

October 2023 to March 2024

"Miracle"

At

Survey No. 32A, 36C, 37 at Village Ranjnoli, Taluka
Bhiwandi, Dist. Thane

**(Environmental Clearance Letter No.:
SIA/MH/MIS/244299/2021 Dated 10th June, 2022)**

CONSULTANT



Mahabal Enviro Engineers Pvt. Ltd.

Engineers, Consultants, Environmental Monitoring Laboratory & Contractors

F-7, Road 21, MIDC Wagle Estate, Thane-400604. Phone:022-25823154 thane@mahabal.com

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COMPLIANCE STATUS OF EC CONDITIONS

**Environmental Clearance Letter No.: SIA/MH/MIS/244299/2021
Dated 10th June, 2022**

No	Condition	Compliance	?	P
	SPECIFIC CONDITION			
A.	SEAC CONDITIONS:			
1.	PP to submit IOD/IOA/Concession Document/Plan Approval or any other form of documents as applicable clarifying its conformity with local planning rules and provisions as per the Circular dated 30.01.2014 issued by the Environment Department, Govt. of Maharashtra	Noted.		
2.	PP to obtain the following NOCs & remarks a) Sewer Connection; b) SWD NOC; c) Final CFO NOC; d) Tree NOC.	Noted.		
3.	Planning authority to ensure that assured water supply, Sewer connections/lines are made available within the vicinity of the project before issuing Occupation Certificate to the project	Noted.		
4.	PP to Ensure that treated water parameters are as per NGT norms	PP will comply with the condition.		
5.	PP to maintain adequate distance between STP & OWC.	PP will comply with the condition.		
6.	PP to provide adequate 4-wheeler parking as per as per prevailing GDC Regulations & ensure that minimum 25% of total parking are equipped with electric charging facility	PP will comply with the condition.		
7.	PP to obtain permission from MMRDA for discharge of treated water in to the adjacent Nalla.	PP will comply with the condition.		
8.	PP to submit carbon emission and carbon foot print report for the project.	Noted.		
9.	PP to provide Septic tank for workers during construction phase. PP to Adopt water Conservation measures in operation phase by providing low flow devices (LFD) as Plumbing Fixtures. Accordingly, Revise EMP of Construction & Operation phase.	Noted.		
B.	SEIAA CONDITIONS:			
1.	PP to keep open space unpaved so as to ensure permeability of water. However, whenever paving is deemed necessary, PP to provide grass pavers of suitable types &	Noted		

	strength to increase the water permeable area as well as to allow effective fire tender movement.			
3.	PP to achieve at least 5% of total energy requirement from solar/other renewable sources.	PP will comply with the condition. Energy saving calculations already submitted during SEIAA meeting.		
4.	PP Shall comply with Standard EC conditions mentioned in the Office Memorandum issued by MoEF & CC vide F.No.22-34/2018-IA.III dt.04.01.2019.	PP comply with the condition		
5.	SEIAA after deliberation decided to grant EC for- FSI – 93864.26 m ² , Non FSI- 20407.39 m ² , Total BUA- 114271.65 m ² . (MMRD Plan Approval No., SROT//BSNA//25011/BP/Ranjnoli 18/1281/LA-2021, date 03.12.2021).	Noted		
	GENERAL CONDITIONS:			
a)	Construction Phase:			
(i)	The solid waste generated should be properly collected and segregated. Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.	Waste generated in worker camps is municipal solid waste which is segregated onsite, and treated by local municipal authorities.		
(ii)	Disposal of muck, Construction spoils, including bituminous material during 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 the approved sites with the approval of competent authority.	Debris will be collected, stored, and/or transported and utilized for land filling (or land leveling both onsite or offsite) All safety precautions will be taken by the PP. The safety nets, safety equipment's to the workers, barricading to plot boundary, water spraying at source of dust (twice in a day) and noise pollution mitigation measures will take.		
(iii)	Any hazardous waste generated during construction phase should be disposed of as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board	No hazardous waste will be generated during construction & operation phase.		
(iv)	Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal	Adequate sanitary and hygiene measures will be taken. Temporary sanitation with septic tank and separate		

	of wastewater and solid wastes generated during the construction phase should be ensured.	toilets for ladies and gents will be provided to the workers. All of these will be maintained in clean and operative condition for complete period of construction.		
(v)	Arrangement shall be made that waste water and storm water do not get mixed.	The Storm water drains and sewer lines will be separately provided on site. This arrangement shall ensure that storm water and sewage will not get mixed.		
(vi)	Water demand during construction should be reduced by use of pre- mixed concrete, curing agents and other best practices.	Curing compound, Conbextra, and Renderoc are products made by Fosroc that are used on construction sites. They help in saving water.		
(vii)	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.	Noted		
(viii)	Permission to draw ground water for construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.	Ground water is not used for any Purpose. PP will take permission from concerned Authority if required.		
(ix)	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.	Low flow Fixtures for showers, toilet flushing and drinking will be provided.		
(x)	The Energy Conservation Building code shall be strictly adhered to.	For energy conservation PP will use: <ul style="list-style-type: none"> • LED lamps • BEE 3 star rated lamps and fittings • Energy sufficient pumps and motors Solar panel 		
(xi)	All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.	There is absence of top soil and presence of backfill materials and boulders till 1 m and rocks below and the project will use the soil for backfill, and hence top layer of soil is unsuitable for landscaping in the project		
(xii)	Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved	The excavated soil will be used for backfilling.		
(xiii)	Soil and ground water samples will be tested to ascertain that there is no threat to	The Soil and ground water quality will be regularly	√	

	ground water quality by leaching of heavy metals and other toxic contaminants.	monitored by MOEF&CC accredited lab		
(xiv)	PP to strictly adhere to all the conditions mentioned in Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 as amended during the validity of Environment Clearance	PP will comply with the condition		
(xv)	The diesel generator sets to be used during construction phase should be low Sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.	PP will comply with the condition		
(xvi)	PP to strictly adhere to all the conditions mentioned in Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 as amended during the validity of Environment Clearance.	PP will comply with the condition.		
(xvii)	Vehicles hired for transportation of Raw material shall strictly comply the emission norms prescribed by Ministry of Road Transport & Highways Department. The vehicle shall be adequately covered to avoid spillage/leakages.	Vehicles with PUC will only be hired for bringing construction material to the site and are checked for PUC at main gate.		
(xviii)	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 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/MPCB.	Presence of online AQI monitoring system on site which provides real-time AQI, PM 10 & PM 2.5 levels		
(xix)	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during construction phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low Sulphur diesel is preferred. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.	At present DG has not been installed at construction site.		
(xx)	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings by a separate environment cell /Designated person	Supervisors trained in Environmental Management measures will be in place and they will be responsible for onsite Environmental Management Plan. Also, quarterly assessment of EMP and other environmental regulatory conditions monitored by corporate sustainability team		

b)	Operation phase:			
(i)	a) The solid waste generated should be properly collected and segregated. b) Wet waste should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. c) Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.	Solid waste will be collected and segregated at source. Wet waste will be treated in OWC & dry waste will be sent to Municipal authority.		
(ii)	E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016	E-waste generated will be disposed through authorized vendor as per E- Waste (Management and Handling) Rules, 2016.		
(iii)	a) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP. b) PP to give 100 % treatment to sewage /Liquid waste and explore the possibility to recycle at least 50 % of water, Local authority should ensure this.	PP will install STP of 945 m ³ /day total capacity at site. The MBBR technology will be used for the STP. The plant is designed as per standards prescribed by Maharashtra Pollution Control Board.		
(iv)	Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement.	Occupation will only be allotted after completion and commissioning of STP, MSW disposal facility and green belt development.		
(v)	The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms.	PP will comply with the condition.		

(vi)	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	Entry & exit to the proposed project will be located in such a way that it won't affect traffic on the adjoining roads. Also, sufficient parking is provided.		
(vii)	PP to provide adequate electric charging points for electric vehicles (EVs).	PP complies with the condition.		
(viii)	Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.	Approximately 4591.16 m ² of the landscape area will be developed within the project site. Tree plantation along the plot boundary is as per CPCB guidelines.		
(ix)	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards	PP will make the provision for environment management cell with qualified staff for the implementation of the stipulated environmental safeguards.		
(x)	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise break-up. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes	PP will allot separate funds for environmental protection measures / EMP and provided as per planned requirement.		
(xi)	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at parivesh.nic.in	PP has given advertisement in Marathi newspaper "Maharashtra Times" on 25 th Nov 2022 and English newspaper "Mumbai Mirror" on 20 th Nov 2022.	√	
(xii)	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.	PP will be submitting the six-monthly monitoring reports to the department of MPCB Regional Office, MoEF, Nagpur and Env. Dept. Mumbai.	√	
(xiii)	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation 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.	The half yearly compliance report to MPCB will be regularly submitted.		

(xiv)	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 Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, 802, NOx (ambient levels as well as stack emissions) or critical sector 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.		
c)	General EC Conditions:			
(i)	PP has to strictly abide by the conditions stipulated by SEAC & SEIAA	Agreed. PP will comply with the conditions stipulated by SEAC and SEIAA.		
(ii)	If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.	We have received CTE on 23.03.2023.	√	
(iii)	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was Found Construction of the project has been started without obtaining environmental clearance.	Prior Environmental Clearance was taken for this project. EC vide letter no. SIA/MH/MIS/246128/2021 Dated 29.08.2022.	√	
(iv)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	PP will be submitting complete set of all documents to department.		
(v)	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Six monthly reports regarding the status of compliance of EC conditions will regularly be sent to all mandated authorities. PP will submit environmental statement for each financial year ending 31st March in Form-V to the concerned State Pollution Control Board.	√	
(vi)	No further Expansion or modifications, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the SEIAA. In	Noted.		

	case of deviations or alterations in the project proposal from those submitted to SEIAA for clearance, a fresh reference shall be made to the SEIAA as applicable to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.			
(vii)	This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily imply that Forestry & Wild life clearance granted to the project which will be considered separately on merit	Noted.		
4	The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.	Noted.		
5	This Environment Clearance is issued purely from an environment point of view without prejudice to any court cases and all other applicable permissions/ NOCs shall be obtained before starting proposed work at site.	Noted.		
6	In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.	Noted.		
7	Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, amended from time to time.	PP has received the Environment Clearance SIA/MH/MIS/244299/2021 Dated 10.06.2022 and as per MoEF notification dated 12.04.2022 it is valid up to 10.06.2032.	√	
8	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules,	Noted.		

	1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.			
9	Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D-Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.		

CONDITIONS OF CONSENT TO ESTABLISH**Consent Order No. Format1.0/CC/UAN
No.0000154659/CE/2303001626 dated 23.03.2023**

No	Condition				Compliance	<input type="checkbox"/>	P	
1.	The Consent to Establish is granted for a period up to Commissioning of Project or up to 5 years whichever is earlier.				Noted.			
2.	The Capital investment of the Project is Rs.412.22 cr. (As per C.A. Certificate submitted by industry).				C.A Certificate was submitted to the MPCB.			
3.	The Consent to Establish is valid for Residential Cum Commercial Construction Project named as M/s. Ecohomes Townships LLP, Survey No. 32 A, 36 C, 37, Ranjnoli, Tal: Bhiwandi, Dist: Thane on Total Plot Area of 41356.08 SqMtrs for Total construction BUA of 114271.65 SqMtrs, as per EC Granted dated 10.06.2022 including utilities and services.				Noted.			
	Sr. No	Permission Obtained	Plot Area (SqMtr)	BUA (SqMtr)				
	1	Environment Clearance granted dtd. 10.06.2022	41356.08	114271.65				
4.	Conditions under Water (P&CP), 1974 Act for Discharge of Effluent:				The 890 m ³ /day of sewage generated will be treated in sewage treatment Plant of 945 m ³ /day.			
	Sr No	Description	Permitted (In CMD)	Standards To				Disposal
	1.	Trade effluent	Nil	NA				NA
2.	Domestic effluent	890.04	As per Schedule - I	The treated effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be connected to the sewerage system provided by local body				
5.	Conditions under Air (P & CP) Act, 1981 for air emissions:				Acoustic-enclosed DG sets will be Provided.			

	Sr. No.	Description of Stack/source	Number of Stack	Standards to be achieved			
	1	D.G. Set 600 kVA)	1	As per schedule-II			
6.	Conditions about Non-Hazardous Waste				Noted.		
	Sr. No.	Type of Waste	Quantity	Treatment	Disposal		
	1	Dry Waste	1212 Kg/day	-	Sold to Authorized Recycler		
	2	Wet Waste	1809 Kg/day	OWC	Used as Manure		
	3	STP Sludge	123.25 Kg/day	OWC	Used as manure		
7.	Conditions under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for treatment and disposal of hazardous waste.						
	Sr. No.	Category	Quantity	UOM	Disposal		
	NA						
8.	PP shall comply with the Conditions stipulated in Environmental Clearance & consent conditions and submit BG of Rs. 10 Lakhs towards compliance of the same.				Noted.		
9.	PP shall install an online monitoring system to the O/L of STP for monitoring pH, Flow, BOD, TSS.				Noted.		
10.	The treated domestic effluent shall be 60 % recycled for secondary purpose such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and reaming shall be utilized on land for gardening and connected to the sewerage system provided by local body.				Noted.		
11.	Project Proponent shall provide Organic waste digester with composting facility or Bio-gas digester with composting facility				Noted.		
12.	Project Proponent shall make provision of charging port for Electric vehicles in at least 30% total available parking area				PP complies with the conditions.		
13.	PP shall comply with the provision of Construction & Demolition Waste management Rules 2016.				PP complies with the conditions.		
14.	Project Proponent shall take adequate measures to control noise and dust emissions during construction phase				Noted.		
15.	Project Proponent shall submit an affidavit in Board's prescribed format within 15 days regarding the compliance of C to E conditions.				Noted.		
16.	Project proponent shall comply with the conditions stipulated in Environment Clearance granted by GOM, vide No. SIA/MH/MIS/244299/2021 dtd. 10.06.2022. This consent is issued as per communication letter dated 03/11/2022 which is approved by competent authority of the board.				PP complies with the conditions.		

Schedule - I**Terms & conditions for compliance of Water Pollution Control**

No	Condition	<input type="checkbox"/>	P																								
1	A. As per your application, you have proposed to provide MBBR based Sewage Treatment Plants (STPs) of combined capacity 895 CMD for treatment of domestic effluent of 890.04 CMD.	PP agrees with the condition. PP will install STP of capacity 945 m ³ /day to treat 890 m ³ /day of generated sewage water and will get it certified by an independent expert.																									
	B. The Applicant shall operate the sewage treatment plant (STP) to treat the sewage so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent <table><tr><th>Sr</th><th>Parameters</th><th>Standards prescribed by</th></tr><tr><td>1</td><td>pH</td><td>5.5 – 9.0</td></tr><tr><td>2</td><td>BOC</td><td>10</td></tr><tr><td>3</td><td>COD</td><td>50</td></tr><tr><td>4</td><td>TSS</td><td>20</td></tr><tr><td>5</td><td>NH4 N</td><td>5</td></tr><tr><td>6</td><td>N-total</td><td>10</td></tr><tr><td>7</td><td>Fecal coliform</td><td>Less than 100</td></tr></table>	Sr	Parameters	Standards prescribed by	1	pH	5.5 – 9.0	2	BOC	10	3	COD	50	4	TSS	20	5	NH4 N	5	6	N-total	10	7	Fecal coliform	Less than 100	Yes, PP will use MBBR technology for sewage treatment. PP will achieve the standards prescribed by the Board or under EP Act, 1986, and Rules made there under from time to time, whichever is stringent.	
Sr	Parameters	Standards prescribed by																									
1	pH	5.5 – 9.0																									
2	BOC	10																									
3	COD	50																									
4	TSS	20																									
5	NH4 N	5																									
6	N-total	10																									
7	Fecal coliform	Less than 100																									
	C. The treated domestic effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be utilized on land for gardening and connected to the sewerage system provided by local body.	The treated water generated from STP will be used in flushing, Gardening & vehicle washing & the excess treated water will be discharged into the municipal drain.																									
2	The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior	PP agrees with the condition.																									

	consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto																	
3	The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.	PP agrees with the condition.																
4	<div>The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act,1974 and as amended, and other provisions as contained in the said act</div> <table><tr><th>Sr</th><th>The purpose for water consumed</th><th>Water consumption quantity (CMD)</th></tr><tr><td>1</td><td>Industrial Cooling, spraying in mine pits or boiler feed</td><td>0.00</td></tr><tr><td>2</td><td>Domestic purpose</td><td>1057.13</td></tr><tr><td>3</td><td>Processing whereby water gets polluted & pollutants are easily biodegradable</td><td>0.00</td></tr><tr><td>4</td><td>Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic</td><td>0.00</td></tr></table>	Sr	The purpose for water consumed	Water consumption quantity (CMD)	1	Industrial Cooling, spraying in mine pits or boiler feed	0.00	2	Domestic purpose	1057.13	3	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00	4	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00	PP agrees with the condition.	
Sr	The purpose for water consumed	Water consumption quantity (CMD)																
1	Industrial Cooling, spraying in mine pits or boiler feed	0.00																
2	Domestic purpose	1057.13																
3	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00																
4	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00																
5	The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act. 1986 and rule made there under from time to time	PP agrees with the condition.																

CONSENT SCHEDULE-II**Terms & conditions for compliance of Air Pollution Control:**

No	Condition	Compliance	<input type="checkbox"/>	P																
	<u>Schedule-II</u> <u>Terms & conditions for compliance of Air Pollution Control:</u>																			
1.	As per your application, you have proposed to provide the Air pollution control (APC) system and also proposed to erect the following stack (s) and to observe the following fuel pattern <table><tr><th>Stack no.</th><th>Stack attached to</th><th>APC system</th><th>Ht (m)</th><th>Type of fuel</th><th>Sulphur content (in %)</th><th>Pollutants</th><th>Std</th></tr><tr><td>1</td><td>DG set 600 kVA</td><td>Acoustic Enclosure</td><td>5.00</td><td>HSD 125.5 Ltr/Hr</td><td>-</td><td>SO₂</td><td>60</td></tr></table>	Stack no.	Stack attached to	APC system	Ht (m)	Type of fuel	Sulphur content (in %)	Pollutants	Std	1	DG set 600 kVA	Acoustic Enclosure	5.00	HSD 125.5 Ltr/Hr	-	SO ₂	60	PP will install DG set for Residential building: 1 no. of set 600 kVA capacity. The DG set will have stack height as per MPCB norms		
Stack no.	Stack attached to	APC system	Ht (m)	Type of fuel	Sulphur content (in %)	Pollutants	Std													
1	DG set 600 kVA	Acoustic Enclosure	5.00	HSD 125.5 Ltr/Hr	-	SO ₂	60													
2.	The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards. <table><tr><td>Particulate Matter</td><td>Not to exceed</td><td>150 mg/Nm³</td></tr></table>	Particulate Matter	Not to exceed	150 mg/Nm ³	The prescribed standard is being achieved.															
Particulate Matter	Not to exceed	150 mg/Nm ³																		
3.	The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement alteration well before its life come to end or erection of new pollution control equipment	PP agrees with the condition.																		
4.	The Board reserves its rights to vary all or any of the conditions in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment. other in whole or in part is necessary).	PP agrees with the condition.																		
5	Conditions for utilities like Kitchen, Eating Places, and Canteens: - a) The kitchen shall be provided with exhaust system chimney with oil catcher connected to chimney through ducting. b) The toilet shall be provided with exhaust system connected to chimney through ducting. c) The air conditioner shall be vibration proof and the noise shall not exceed 68 dB(A). d) The exhaust hot air from A.C. shall be attached to Chimney at least 5 mtrs. higher than the nearest tallest building through ducting and shall discharge into open air in such a way that no nuisance is caused to neighbors.	PP agrees with the condition.																		

CONSENT SCHEDULE-III**Details of Bank Guarantees**

Sr	Consent (C2E/C20)/C	Amt of BG imposed	Submission on period	Purpose of BG	Compliance Period	Validity Date	Compliance
1	C2E	Rs.10 Lakh	15 days	Towards Compliance of EC & Consent conditions	up to commissioning of the unit or five years whichever is	up to commissioning of the unit or five years whichever is earlier	PP has submitted the bank guarantee to MPCB.

** The above Bank Guarantee(s) shall be submitted by the applicant in favor of Regional Officer at the respective Regional Office within 15 days of the date of issue of Consent.

Existing BG obtained for above purpose if any may be extended for the period of validity as above.

BG Forfeiture History

Sr	Consent (C2E/C20)/C2R)	Amt of BG imposed	Submission period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
N/A						

BG Return details

Sr	Consent (C2E/C20)/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
N/A				

CONSENT SCHEDULE-IV**Conditions during construction phase**

No	Condition	Compliance	?	P
A	During construction phase, applicant shall provide temporary sewage disposal and MSW facility for staff and worker quarters	Waste generated in worker camps is municipal solid waste which is segregated onsite, and treated by local municipal authorities. Generated Sewage Dispose to Septic Tank		
B	During the construction phase, the ambient air and noise quality should be closely monitored to achieve Ambient Air Quality Standards and Noise by the project proponent through MoEF approved laboratory	PP agrees with the condition.		
C	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	Available Noise Monitoring results for the month of October 2023 to March 2024 are attached.	√	

General Conditions

No.	Condition	Compliance	□	P
	General Conditions:			
1.	The applicant shall provide facility for collection of samples of sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.	PP agrees with the condition.		
2.	The firm shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act 1986 and Solid Waste Management Rule 2016, Noise (Pollution and Control) Rules, 2000 and E-Waste (Management & Handling Rule 2011.	PP agrees with the condition.		
3.	Drainage system shall be provided for collection of sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No sewage shall be admitted in the pipes/sewers downstream of the terminal manholes. No sewage shall find its way other than in designed and provided collection system	PP agrees with the condition.		

4.	Vehicles hired for bringing construction material to the site should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates.	PP agrees with the condition.		
5.	Conditions for D.G. Set			
	a. Noise from the D.G. set should be controlled by providing an acoustic enclosure or by treating the room acoustically.	PP agrees with the condition.		
	b. Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.	Sampling results have been incorporated with compliance for October 2023 to March 2024 are attached.	√	
	c. Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.	PP agrees with the condition.		
	d. Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.	PP agrees with the condition.		
	e. A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.	Noted		
	f. D.G. Set shall be operated only in case of power failure.	PP will operate the Temporary DG set only in case of power failure.		
	g. The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.	PP has provided Temporary DG set of acoustic enclosure. PP has ensured that no nuisance is created in the surrounding area due to operation of D.G. Set.		

	h. The applicant shall comply with the notification of MoEF&CC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel	PP agrees with the condition.		
6	Solid Waste – The applicant shall provide onsite municipal solid waste processing system & shall comply with Solid Waste Management Rule 2016 & E-Waste (M & H) Rule 2011.	Wet garbage will be composted and used as organic manure		
7	Affidavit undertaking in respect of no change in the status of consent conditions and compliance of the consent conditions the draft can be downloaded from the official web site of the MPCB.	PP has submitted affidavit undertaking in respect of no change in the status of consent conditions		
8.	Applicant shall submit official e-mail address and any change will be duly informed to the MPCB.	PP has submitted official email address.		
9	The treated sewage shall be disinfected using suitable disinfection method.	PP will provide MBBR technology for treating sewage water		
10	The firm shall submit to this office, the 30th day of September every year, the environment statement report for the financial year ending 31st march in the prescribed Form-V as per the provision of rule 14 of the Environmental (Protection) Second Amended rule 1992.	PP will submit Form V for each financial year.	√	
11	The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before commissioning of the project.	PP agrees with the condition.		

ANNEXURE I

Previous compliance report acknowledgement copy



Ajeet Kumar CMD <mahabal.thane@gmail.com>

EC Compliance monitoring Report Submission_April 2023 to September 2023_Proposed Residential Cum Commercial Project "Miracle" Located on Survey No. 32 A, 36C, 37 at Village Ranjnoli, Taluka - Bhiwandi, dist. Thane Proposed by M/s. Ecohomes Township LLP

mahabal.thane@gmail.com <mahabal.thane@gmail.com>

Mon, Dec 11, 2023 at 12:43 PM

To: SRO Kalyan 1 <srokalyan1@mpcb.gov.in>, mpcbmbombay@mpcb.gov.in

Cc: priyankashinde <priyankashinde@ymail.com>, VARADHAN SHANMUGAM - MLDL

<VARADHAN.SHANMUGAM@mahindra.com>, Ajeet Kumar <mahabal.cmd@gmail.com>

To,

Regional OfficerMaharashtra Pollution Control Board,
Sidhivinayak Sankul, 3rd and 4th Floor,
Station Road, Kalyan (West)-421301**Reference:** Environmental Clearance Letter no: SIA/MH/MIS/244299/2021 dated: 10.06.2022

Dear Sir,

Please find attached Herewith the half-yearly compliance monitoring report of the Proposed Residential Cum Commercial Project "Miracle" Located on Survey No. 32A, 36C, 37 at Village Ranjnoli, Taluka - Bhiwandi, Dist. Thane Proposed by M/s. Ecohomes Township LLP.

District Thane April 2023 to September 2023

--

Regards, Apoorva Varma 8879945367

=====

Office of: **Mahabal Enviro Engineers Pvt. Ltd. - THANE BRANCH**

Plot F 7, Road 21, MIDC Wagale Estate, Thane West-400604

(Turn opp. Toyota showroom @ Golden Nest Hotel >>straight>> 550m)

Phone: 022-35097207/9137566620/8928386332 Email: mahabal.thane@gmail.com**PLEASE NOTE THIS IS COMMON EMAIL ID USED BY ALL STAFF MEMBERS FOR GENERAL COMMUNICATION ONLY.****Compliance Report _Ecohomes Township LLP-Miracle_April 2023 to September 2023_Final.pdf**

6455K



Ajeet Kumar CMD <mahabal.thane@gmail.com>

EC Compliance monitoring Report Submission_April 2023 to September 2023_Proposed Residential Cum Commercial Project "Miracle" Located on Survey No. 32 A, 36C, 37 at Village Ranjnoli, Taluka - Bhiwandi, dist. Thane Proposed by M/s. Ecohomes Township LLP

mahabal.thane@gmail.com <mahabal.thane@gmail.com>

Mon, Dec 11, 2023 at 12:43 PM

To: vijay.patil@nic.in

Cc: Ajeet Kumar <mahabal.cmd@gmail.com>, priyankashinde <priyankashinde@ymail.com>, VARADHAN SHANMUGAM - MLDL <VARADHAN.SHANMUGAM@mahindra.com>

To,
Environment Department,
Government of Maharashtra
15th Floor, New Administrative Buildings,
Mantralaya, Mumbai-400032

Reference: Environmental Clearance Letter no: SIA/MH/MIS/244299/2021 dated: 10.06.2022

Dear Sir,

Please find attached Herewith the half-yearly compliance monitoring report of the Proposed Residential Cum Commercial Project "Miracle" Located on Survey No. 32A, 36C, 37 at Village Ranjnoli, Taluka - Bhiwandi, Dist. Thane Proposed by M/s. Ecohomes Township LLP

District Thane April 2023 to September 2023

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Regards, Apoorva Varma 8879945367

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6455K



Ajeet Kumar CMD <mahabal.thane@gmail.com>

EC Compliance monitoring Report Submission_April 2023 to September 2023_Proposed Residential Cum Commercial Project "Miracle" Located on Survey No. 32 A, 36C, 37 at Village Ranjnoli, Taluka - Bhiwandi, dist. Thane Proposed by M/s. Ecohomes Township LLP

mahabal.thane@gmail.com <mahabal.thane@gmail.com>

Mon, Dec 11, 2023 at 12:43 PM

To: ecompliance-mh@gov.in

Cc: priyankashinde <priyankashinde@ymail.com>, Ajeet Kumar <mahabal.cmd@gmail.com>, VARADHAN SHANMUGAM - MLDL <VARADHAN.SHANMUGAM@mahindra.com>

To,
The Director
Integrated Regional Officer,
Ministry of Environment, Forest and Climate Change,
Ground Floor, East Wing,
New Secretariat Building,
Civil Lane, Nagpur-440001

Reference: Environmental Clearance Letter no: SIA/MH/MIS/244299/2021 dated: 10.06.2022

Dear Sir,

Please find attached Herewith the half-yearly compliance monitoring report of the Proposed Residential Cum Commercial Project "Miracle" Located on Survey No. 32A, 36C, 37 at Village Ranjnoli, Taluka - Bhiwandi, Dist. Thane Proposed by M/s. Ecohomes Township LLP

District Thane April 2023 to September 2023

--

Regards, Apoorva Varma 8879945367

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Office of: **Mahabal Enviro Engineers Pvt. Ltd. - THANE BRANCH**

Plot F 7, Road 21, MIDC Wagle Estate, Thane West-400604

(Turn opp. Toyota showroom @ Golden Nest Hotel >>straight>> 550m)

Phone: 022-35097207/9137566620/8928386332 Email: mahabal.thane@gmail.com**PLEASE NOTE THIS IS COMMON EMAIL ID USED BY ALL STAFF MEMBERS FOR GENERAL COMMUNICATION ONLY.****Compliance Report _Ecohomes Township LLP-Miracle_April 2023 to September 2023_Final.pdf**
6455K

ANNEXURE II**Site Photographs****Project site**

Labour camp – Worker Hutment Container



Labour camp – Kitchen Facility



Toilets**Safety Signs**

Stand-by Ambulance on-site	Water facility
 <p>Vivo V15 AI Triple Camera</p>	

ANNEXURE III**Advertisements****English newspaper “Mumbai Mirror” on 20th Nov 2022****Marathi newspaper “Maharashtra Times” on 25th Nov 2022**

ANNEXURE IV

Environmental Clearance Letter



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), Maharashtra)

To,

The Director
 ECOHOMES TOWNSHIP LLP
 14th Floor, Ecostar, Vishweshwar nagar cross road, off aarey road,
 Goregaon-East -400063

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/MH/MIS/244299/2021 dated 17 Dec 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC22B038MH139384 |
| 2. File No. | SIA/MH/MIS/244299/2021 |
| 3. Project Type | New |
| 4. Category | B2 |
| 5. Project/Activity including Schedule No. | 8(a) Building and Construction projects |
| 6. Name of Project | Environment Clearance for Proposed Residential cum Commercial Project "Miracle" located on Survey No. 32A, 36C, 37 at Village Ranjnoli, Taluka – Bhiwandi, Dist. Thane proposed by M/s. Ecohomes Townships LLP |
| 7. Name of Company/Organization | ECOHOMES TOWNSHIP LLP |
| 8. Location of Project | Maharashtra |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 10/06/2022

(e-signed)
Manisha Patankar Mhaiskar
 Member Secretary
 SEIAA - (Maharashtra)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

No. SIA/MH/MIS/244299/2021
Environment & Climate
Change Department
Room No. 217, 2nd Floor,
Mantralaya, Mumbai- 400032.

To
M/s. Ecotomes Townships LLP,
Survey No. 32A, 36C, 37 Village Ranjnoli,
Taluka Bhiwandi, Dist. Thane

Subject : Environment Clearance for Proposed Residential cum Commercial Project "Miracle" located on Survey No. 32A, 36C, 37 at Village Ranjnoli, Taluka Bhiwandi, Dist. Thane proposed by M/s. Ecotomes Townships LLP

Reference : Application no. SIA/MH/MIS/244299/2021

This has reference to your communication on the above-mentioned subject. The proposal was considered by the SEAC-2 in its 169th meeting under screening category 8 (a) B2 as per EIA Notification, 2006 and recommend to SEIAA. Proposal then considered in 243rd (Day-3) meeting of State Level Environment Impact Assessment Authority (SEIAA).

2. **Brief Information of the project submitted by you is as below:-**

Sr. No.	Description	Details																		
1	Plot Area (sq. m.)	41,356.08																		
2	FSI Area (sq. m.)	93,864.26																		
3	Non-FSI (sq. m.)	20,407.39																		
4	Proposed built-up area (FSI + Non FSI) (sq. m.)	1,14,271.65																		
5	Building Configuration	<table><thead><tr><th>Building Name</th><th>Configuration</th><th>Height (m)</th></tr></thead><tbody><tr><td>Tower A</td><td>Gr + 1st to 8th Floor + 9th Refuge Floor + 10th to 14th Floor</td><td>43.75</td></tr><tr><td>Tower B</td><td>Gr + 1st to 8th Floor + 9th Refuge Floor + 10th to 14th Floor</td><td>43.75</td></tr><tr><td>Tower C</td><td>Gr + 1st to 8th Floor + 9th Refuge Floor + 10th to 14th Floor</td><td>43.75</td></tr><tr><td>Tower D</td><td>Gr - 1st to 8th Floor + 9th Refuge Floor + 10th to 14th Floor</td><td>43.75</td></tr><tr><td>Tower E</td><td>Gr - 1st to 8th Floor + 9th Refuge Floor +</td><td>43.75</td></tr></tbody></table>	Building Name	Configuration	Height (m)	Tower A	Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75	Tower B	Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75	Tower C	Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75	Tower D	Gr - 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75	Tower E	Gr - 1 st to 8 th Floor + 9 th Refuge Floor +	43.75
Building Name	Configuration	Height (m)																		
Tower A	Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75																		
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Tower C	Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75																		
Tower D	Gr - 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75																		
Tower E	Gr - 1 st to 8 th Floor + 9 th Refuge Floor +	43.75																		

Sr. No.	Description	Details	
		10 th to 14 th Floor	
		Tower F Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75
		Tower G Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75
		Tower H Gr + 1 st to 8 th Floor + 9 th Refuge Floor + 10 th to 14 th Floor	43.75
		M.L.C.P Gr + 1 st to 3 rd Floor	11.85
		Club House Gr + 1 st Floor	6.30
		Town House Gr + 1 st Floor	6.30
6	No. of Tenements & Shops	Residential Flats:1491, Town House: 10, Commercial Units: 14 & Club House (Tower A: Flat-138, Commercial Units: 8; Tower B: 186; Tower C: 246; Tower D: 245; Tower E: 232; Tower F: 176; Tower G: 141; Tower H: 127; Commercial Units: 6; Town House (Villa): 10 & Club House)	
7	Total Population	7811 (Tower A: 762; Tower B: 930; Tower C: 1230; Tower D: 1225; Tower E: 1160; Tower F: 880; Tower G: 705; Tower H: 687; Town House (Villa): 10 & Club House)	
8	Total Water Requirements CMD	1057.13 CMD (Domestic: 682.88 CMD + Flushing: 343.29 CMD + Gardening: 30.51 CMD)	
9	Sewage Generation CMD	890.03 CMD	
10	STP Capacity & Technology	STP Capacity: 895 CMD STP Technology: Sequencing Batch Reactor (SBR)	
11	STP Location	STP Location: Ground & Under Ground Level	
12	Total Solid Waste Quantities	Dry waste (kg/d)	1212
		Wet waste (kg/d)	1809
13	R.G. Area	RG required –	4186.82 sq. m.
		RG provided on Ground-	3038.41 sq. m.
		RG provided on podium -	1552.75 sq. m.
		Total RG Provided –	4591.16 sq. m.
14	Power requirement	Connected load (kW)	5594.10
		Demand load (kW)	2701.84
15	Energy Efficiency	19.73 %	
17	D.G. set capacity	1×600 kW	
18	Parking 4W & 2W	4-Wheeler	762
		2-Wheeler	936

Sr. No.	Description	Details
19	Rain water harvesting scheme	RW11 Tank: 260 cum
20	Project Cost in (Cr.)	Rs.412.22 Cr
21	EMP Cost	Capital Cost: 1091.35 Lacs, Operation & Maintenance Cost: 103.9 Lacs/year
22	CER Details with justification if any.	1.5 % of Project Cost (As per OM by MOEF&CC dated 01.05.2018)

3. Proposal is a new construction project. Proposal has been considered by SEIAA in its 243rd (Day-3) meeting and decided to accord Environment Clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implantation of following terms and conditions-

Specific Conditions:

A. SEAC Conditions-

1. PP to submit ROD/LOA/Concession Document/Plan Approval or any other form of documents as applicable clarifying its conformity with local planning rules and provisions as per the Circular dated 30.01.2014 issued by the Environment Department, Govt. of Maharashtra.
2. PP to obtain following NOCs & remarks
a) Sewer Connection; b) SWD NOC; c) Final CFO NOC; d) Tree NOC.
3. Planning authority to ensure that assured water supply, Sewer connections/lines are made available within the vicinity of the project before issuing Occupation Certificate to the project.
4. PP to ensure that treated water parameters are as per NGT norms.
5. PP to maintain adequate distance between STP & OWC.
6. PP to provide adequate 4-wheeler parking as per as per prevailing GDC Regulations & ensure that minimum 25% of total parking are equipped with electric charging facility.
7. PP to obtain permission from MMRDA for discharge of treated water in to the adjacent Nalla.
8. PP to submit carbon emission and carbon foot print report for the project.
9. PP to provide portable STP for workers during construction phase. PP to adopt water conservation measures in operation phase by providing Low Flow Devices (LFD) as plumbing fixtures. Accordingly, revise EMP of Construction & Operation phase.

B. SEIAA Conditions-

1. PP to keep open space unpaved so as to ensure permeability of water. However, whenever paving is deemed necessary, PP to provide grass pavers of suitable types & strength to increase the water permeable area as well as to allow effective fire tender movement.
2. PP to achieve at least 5% of total energy requirement from solar/other renewable

sources.

3. PP Shall comply with Standard EC conditions mentioned in the Office Memorandum issued by MoEF & CC vide F.No.22-34/2018-JA.III dt.04.01.2019.
4. SELAA after deliberation decided to grant EC for FSI- 93864.26 m², Non FSI- 20407.39 m², Total BUA -114271.65 m². (MVRDA Plan approval No. SROT/BSNA/2501/BP/Ranjoli-18/128/LA-2021, dated 03.12.2021).

General Conditions:

a) Construction Phase :-

- I. The solid waste generated should be properly collected and segregated. Dry/inert solid waste should be disposed of to the approved sites for land filling after recovering recyclable material.
- II. Disposal of muck, Construction spoils, including bituminous material during 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 the approved sites with the approval of competent authority.
- III. Any hazardous waste generated during construction phase should be disposed of as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
- IV. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- V. Arrangement shall be made that waste water and storm water do not get mixed.
- VI. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices.
- VII. The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
- VIII. Permission to draw ground water for construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.
- IX. 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.
- X. The Energy Conservation Building code shall be strictly adhered to.
- XI. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- XII. Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- XIII. 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.
- XIV. PP to strictly adhere to all the conditions mentioned in Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 as amended during the validity of Environment Clearance.
- XV. The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air

and noise emission standards.

- XVI. PP to strictly adhere to all the conditions mentioned in Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 as amended during the validity of Environment Clearance.
- XVII. Vehicles hired for transportation of Raw material shall strictly comply the emission norms prescribed by Ministry of Road Transport & Highways Department. The vehicle shall be adequately covered to avoid spillage/leakages.
- XVIII. 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 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/MPCB.
- XIX. Diesel power generating sets proposed as source of backup power for elevators and common area illumination during construction phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel is preferred. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.
- XX. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings by a separate environment cell /designated person.

B) Operation phase:-

- I. a) The solid waste generated should be properly collected and segregated. b) Wet waste should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. c) Dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- II. E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016.
- III. a) The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/ reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP. b) PP to give 100 % treatment to sewage /Liquid waste and explore the possibility to recycle at least 50 % of water. Local authority should ensure this.
- IV. Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement.

- V. The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms.
- VI. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- VII. PP to provide adequate electric charging points for electric vehicles (EVs).
- VIII. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- IX. A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- X. Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes.
- XI. The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://parivesh.nic.in>
- XII. Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
- XIII. A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation 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.
- XIV. 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 Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sector 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.

C) General EC Conditions:-

- I. PP has to strictly abide by the conditions stipulated by SEAC & SEIAA.
- II. If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
- III. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
- IV. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both

in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

- V. 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 respective Regional Offices of MoEF by e-mail.
 - VI. No further Expansion or modifications, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the SEIAA. In case of deviations or alterations in the project proposal from those submitted to SEIAA for clearance, a fresh reference shall be made to the SEIAA as applicable to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
 - VII. This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.
4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and wherever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.
5. This Environment Clearance is issued purely from an environment point of view without prejudice to any court cases and all other applicable permissions/ NOCs shall be obtained before starting proposed work at site.
6. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.
7. Validity of Environment Clearance: The environmental clearance awarded shall be valid as per EIA Notification, 2006, amended from time to time.
8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

9. Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D-Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


Manisha Paranjay, Manickar
(Member Secretary, SEIAA)

Copy to:

1. Chairman, SEIAA, Mumbai.
2. Secretary, MoEF & CC, IA- Division MOEF & CC
3. Member Secretary, Maharashtra Pollution Control Board, Mumbai.
4. Regional Office MoEF & CC, Nagpur
5. District Collector, Thane.
6. Commissioner, MMRDA
7. Regional Officer, Maharashtra Pollution Control Board, Thane.

ANNEXURE V

Consent to Establish

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: <http://mpcb.gov.in>
Email: cac-cell@mpcb.gov.in



Kalpataru Point, 2nd and
4th floor, Opp. Cine Planet
Cinema, Near Sion Circle,
Sion (E), Mumbai-400022

Infrastructure/RED/L.S.I

No:- Format1.0/CC/UAN No.0000154659/CE/2303001626

Date: 23/03/2023

To,
M/s. Ecohomes Township LLP,
Survey No. 32A, 36C, 37, Ranjnoli,
Tal: Bhiwandi Dist: Thane.



Your Service is Our Duty

Sub: Consent to Establish for Residential Cum Commercial Construction Project granted under red Category.

- Ref:
1. Environment Clearance granted vide No. SIA/MH/MIS/244299/2021 dtd. 10.06.2022.
 2. Minutes of 34th Consent Committee Meeting held on 01.03.2023.

Your application NO. MPCB-CONSENT-0000154659

For: grant of Consent to Establish under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I,II,III & IV annexed to this order:

1. **The Consent to Establish is granted for a period upto commissioning of project or up to 5 year whichever is earlier.**
2. **The capital investment of the project is Rs.412.22 Cr. (As per C.A Certificate submitted by industry).**
3. **The Consent to Establish is valid for Residential Cum Commercial Construction Project named as M/s. Ecohomes Townships LLP, Survey No. 32A, 36C, 37, Ranjnoli, Tal: Bhiwandi, Dist: Thane on Total Plot Area of 41356.08 SqMtrs for Total construction BUA of 114271.65 SqMtrs, as per EC granted dated 10.06.2022 including utilities and services**

Sr.No	Permission Obtained	Plot Area (SqMtr)	BUA (SqMtr)
1	Environment Clearance granted dtd. 10.06.2022	41356.08	114271.65

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal
1.	Trade effluent	Nil	NA	NA

Sr No	Description	Permitted	Standards to	Disposal
2.	Domestic effluent	890.04	As per Schedule - I	The treated effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be connected to the sewerage system provided by local body

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	DG SET 600 KVA	1	As per Schedule -II

6. **Conditions under Solid Waste Rules, 2016:**

Sr No	Type Of Waste	Quantity & UoM	Treatment	Disposal
1	Dry Waste	1212 Kg/Day	-	Sold to Authorised recycler
2	Wet waste	1809 Kg/Day	OWC	Used as manure
3	STP Sludge	123.25 Kg/Day	OWC	Used as manure

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No.	Quantity	UoM	Treatment	Disposal
NA					

8. PP shall comply with the conditions stipulated in Environment Clearance & consent conditions and submit BG of Rs. 10 Lakhs towards compliance of the same.
9. PP shall install online monitoring system to the O/L of STP for monitoring pH, Flow, BOD, TSS
10. The treated domestic effluent shall be 60 % recycled for secondary purpose such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and reaming shall be utilized on land for gardening and connected to the sewerage system provided by local body.
11. Project Proponent shall provide Organic waste digester with composting facility or Bio-gas digester with composting facility
12. Project Proponent shall make provision of charging port for Electric vehicles in at least 30% total available parking area
13. PP shall comply with the provision of Construction & Demolition Waste management Rules 2016

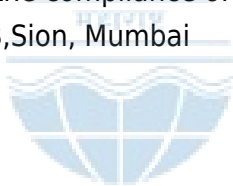
14. Project Proponent shall take adequate measures to control noise and dust emissions during construction phase
 15. project Proponent shall submit an affidavit in Board's prescribed format within 15 days regarding the compliance of C to E conditions.
 16. Project proponent shall comply with the conditions stipulated in Environment Clearance granted by GOM, vide No. SIA/MH/MIS/244299/2021 dtd. 10.06.2022.
- . This consent is issued as per communication letter dated 03/11/2022 which is approved by competent authority of the board.

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	824440.00	MPCB-DR-16788	23/01/2023	RTGS

Copy to:

1. Regional Officer, MPCB, Kalyan and Sub-Regional Officer, MPCB, Bhivandi
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Sion, Mumbai



SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

- 1) A] As per your application, you have proposed to provide MBBR based Sewage Treatment Plants (STPs) of combined capacity **895 CMD for treatment of domestic effluent of 890.04 CMD.**
- B] The Applicant shall operate the sewage treatment plant (STP) to treat the sewage so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH
1	pH	5.5-9.0
2	BOD	10
3	COD	50
4	TSS	20
5	NH4 N	5
6	N-total	10
7	Fecal Coliform	less than 100

- C] The treated domestic effluent shall be 60% recycled for secondary purposes such as toilet flushing, air conditioning, cooling tower make up, firefighting etc. and remaining shall be utilized on land for gardening and connected to the sewerage system provided by local body.
- 2) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto.
- 3) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
- 4) **The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, and other provisions as contained in the said act.**

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	0.00
2.	Domestic purpose	1057.13
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00

- 5) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

- 1) **As per your application, you have proposed to provide the Air pollution control (APC) system and also proposed to erect following stack (s) and to observe the following fuel pattern-**

Stack No.	Source	APC System provided/proposed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
1	DG SET 600 KVA	Acoustic Enclosure	5.00	HSD 125.5 Ltr/Hr	-	SO2	60.24 Kg/Day

- 2) The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards.

Total Particular matter	Not to exceed	150 mg/Nm3
-------------------------	---------------	------------

- 3) The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement well before its life come to an end or erection of new pollution control equipment.
- 4) The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
- 5) **Conditions for utilities like Kitchen, Eating Places, Canteens:-**
- The kitchen shall be provided with exhaust system chimney with oil catcher connected to chimney through ducting.
 - The toilet shall be provided with exhaust system connected to chimney through ducting.
 - The air conditioner shall be vibration proof and the noise shall not exceed 68 dB(A).
 - The exhaust hot air from A.C. shall be attached to Chimney at least 5 mtrs. higher than the nearest tallest building through ducting and shall discharge into open air in such a way that no nuisance is caused to neighbors.

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent(C2E/C2O/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	Consent to Establish	Rs. 10 Lakh	15 days	Towards Compliance of EC & Consent conditions	upto commissioning of the unit or five years whichever is earlier	upto commissioning of the unit or five years whichever is earlier

** The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days of the date of issue of Consent.

Existing BG obtained for above purpose if any may be extended for period of validity as above.

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV

Conditions during construction phase

A	During construction phase, applicant shall provide temporary sewage and MSW treatment and disposal facility for the staff and worker quarters.
B	During construction phase, the ambient air and noise quality shall be maintained and should be closely monitored through MoEF approved laboratory.
C	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.

General Conditions:

- 1 The applicant shall provide facility for collection of samples of sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 2 The firm shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act 1986 and Solid Waste Management Rule 2016, Noise (Pollution and Control) Rules, 2000 and E-Waste (Management & Handling Rule 2011.
- 3 Drainage system shall be provided for collection of sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No sewage shall be admitted in the pipes/sewers downstream of the terminal manholes. No sewage shall find its way other than in designed and provided collection system.
- 4 Vehicles hired for bringing construction material to the site should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

- 5 Conditions for D.G. Set
- a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
- 6 Solid Waste - The applicant shall provide onsite municipal solid waste processing system & shall comply with Solid Waste Management Rule 2016 & E-Waste (M & H) Rule 2011.
- 7 Affidavit undertaking in respect of no change in the status of consent conditions and compliance of the consent conditions the draft can be downloaded from the official web site of the MPCB.
- 8 Applicant shall submit official e-mail address and any change will be duly informed to the MPCB.
- 9 The treated sewage shall be disinfected using suitable disinfection method.
- 10 The firm shall submit to this office, the 30th day of September every year, the environment statement report for the financial year ending 31st march in the prescribed Form-V as per the provision of rule 14 of the Environmental (Protection) Second Amended rule 1992.
- 11 The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before commissioning of the project.

This certificate is digitally & electronically signed.

ANNEXURE VI

Form V



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2024

Unique Application Number

MPCB-ENVIRONMENT_STATEMENT-0000064694

Submitted Date

12-04-2024

PART A

Company Information

Company Name

M/s. Ecohomes Townships LLP

Application UAN number

MPCB-CONSENT-0000154659

Address

Survey No. 32A, 36C, 37, Ranjnoli, Tal:
Bhiwandi Dist: Thane.

Plot no

32A, 36C, 37

Taluka

Bhiwandi

Village

Ranjnoli

Capital Investment (In lakhs)

41222

Scale

L.S.I

City

Thane

Pincode

421308

Person Name

Mr. Gaurav Monga

Designation

Director

Telephone Number

9821803016

Fax Number

0

Email

gmonga@ecohomesindia.com

Region

SRO-Bhivandi

Industry Category

Orange

Industry Type

O21 Building and construction project more
than 20,000 sq. m built up area

Last Environmental statement submitted online

yes

Consent Number

Format1.0/CC/UAN
No.0000154659/CE/2303001626

Consent Issue Date

2023-03-23

Consent Valid Upto

2028-03-23

Establishment Year

2023

Date of last environment statement submitted

Jan 1 1900 12:00:00:000AM

Industry Category Primary (STC Code) & Secondary (STC Code)

Product Information

Product Name

NA

Consent Quantity

0

Actual Quantity

0

UOM

CMD

By-product Information

By Product Name

NA

Consent Quantity

0

Actual Quantity

0

UOM

CMD

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
	0.00	0.00
Cooling	0.00	0.00
Domestic	1057.13	0.00
All others	0.00	0.00
Total	1057.13	0.00

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Domestic effluent	890.04	0	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
NA	0	0	CMD

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
NA	0	0	CMD

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
HSD	125.5	0	Ltr/Hr

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
pH	5.5	0	0	0	0
BOD	10	0	0	0	0
COD	50	0	0	0	0
TSS	20	0	0	0	0
NH4 N	5	0	0	0	0
N-total	10	0	0	0	0
Fecal Coliform	100	0	0	0	0

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
SO2	0	0	0	60.24	0

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	CMD

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	CMD

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Dry Waste	1212	0	Kg
Dry Waste	1212	0	Kg
Wet waste	1809	0	Kg
Wet waste	1809	0	Kg
STP Sludge	123.25	0	Kg
STP Sludge	123.25	0	Kg

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
NA	0	0	CMD

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	CMD

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
0	0	CMD	0

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
NA	0	CMD	0

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
NA	0	0	0	0	0	0

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.
[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
NA	NA	0

<u>[B] Investment Proposed for next Year</u>		
Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
0	0	0

Part-I

Any other particulars for improving the quality of the environment.

Particulars
we awarded with consent to establish.

Name & Designation
Mr. Gaurav Monga_Director

UAN No:
MPCB-ENVIRONMENT_STATEMENT-0000064694

Submitted On:
12-04-2024

ANNEXURE VII
ENVIRONMENTAL STATUS REPORT

Environmental Status Report

As per EC Condition

For

"Miracle" Residential Cum Commercial Project by

M/s Echomes Townships LLP.

at

Survey No. 32 A, 36C, 37 at Village Ranjnoli, Taluka Bhiwandi, Dist. Thane



Prepared by
CONSULTANTS



Mahabal Enviro Engineers Pvt. Ltd.

Plot F-7, Road 21, MIDC Wagle Estate, Thane-400604

Phone: +91-22-25823139/1663/0658 thane@mahabal.com

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Environmental Status Report

Introduction

M/s Echomes Townships LLP. is proposing Residential Cum Commercial Project "Miracle" at Survey No.32A,36C, 37 at Village Ranjnoli, Taluka Bhiwandi, Dist. Thane.

Environment Clearance letter was obtained vide file no. SIA/MH/MIS/244299/2021 Dated 10.06.2022 for total plot area 41,356.08 m² and total construction area 1,14,271.65 m².

Project proponent information

Name	M/s Echomes Townships LLP. Mr. Gaurav Monga
Address	M/s Echomes Townships LLP. Survey No. 32A, 36C, 37, Ranjnoli, Tal: Bhiwandi Dist: Thane
Telephone	9821803016
Mobile	9962826106
Email ID	gmonga@echomesindia.com

Plot area and Construction area details

Details	Total	Unit
Total Plot area	41,356.08	m ²
Proposed FSI Area	93,864.26	m ²
Proposed Non-FSI area	20,407.39	m ²
Total Construction area	1,14,271.65	m ²

Present status

PP have started the construction in 2022 as per the EC file No - SIA/MH/MIS/244299/2021 Dated: - 10/06/2022

Construction details are given below,

Constructed Building configuration details

Sr.	Building Name	Building Configuration	Construction status
1.	Tower A	Gr + 1 st to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	-
2.	Tower B	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Plinth Works are in progress
3.	Tower C	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Level 08 slab works are in progress
4.	Tower D	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Level 08 slab works are in progress
5.	Tower E	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Foundation Works are in progress
6.	Tower F	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Foundation Works are in progress
7.	Tower G	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Plinth Works are in progress
8.	Tower H	Gr + 1 st Floor to 8 th floor + 9 th refuge Floor + 10 th to 14 th Floor	Plinth Works are in progress
9.	MLCP	Gr + 1 st to 3 rd floor	Substructure along with UGT and STP RCC Works are in progress
10.	Club House	Gr + 1 st Floor	-
11.	Town House	Gr + 1 st Floor	-

Construction activity**Table 1: Environmental Services progress status**

Sr.	Details	Status
1.	DG set	Will be Provided
2.	Landscape area	4591.16 m ² area is proposed for landscape development.
3.	Tree plantation	00 No's trees are planted on site.
4.	STP work	Will be provided.
5.	Solid waste management: OWC details	Will be provided.
6.	Parking	PP have provided parking as per DCR requirement.

7.	Excavation details	Excavated material utilized within the premises for plot leveling, landscaping, and decoration purposes
8.	Debris details and its management	The excavated material having is used for backfilling and decoration purposes.
9.	Groundwater recharge: Rainwater harvesting	RWH Tank – RCC work in progress.
10.	Stormwater harvesting	stormwater harvesting network will be provided
11.	RMC plant and brick details	RMC is being brought from outside from the supplier. We are not using bricks only AAC blocks are being used
12.	Contact person on site	Mr. Birju Bandiwadekar - 9096039658

Construction facility on site

PP have provided following facilities at site:

- ✓ Material storage area
- ✓ DG set during construction phase
- ✓ Personal Protective equipment's for workers
- ✓ Safety Nets for buildings
- ✓ RMC procured from outside
- ✓ Steel yard
- ✓ Waste material storage area

Facility provided on site for Labour

Labour camp has been provided for the labours with the all-basic necessities like sanitary facilities, drinking water facility, and health check up for workers. First aid room with well-equipped first aid box is provided to the workers.

Land Excavation details

There is absence of top soil and presence of Backfill materials and boulders till 1 m and rocks below and the Project will use the soil for backfill, and hence top layer of soil is unsuitable for landscaping in the Project.

To minimize disruption of soil and for the conservation of topsoil. Topsoil is utilized for land levelling activity and decoration purposes. Generated debris is used within the site.

Water details

Construction phase

PP has provided the drinking water facility for Labour workers.

Operational phase

Source of water supply to the project site is STEM water distribution Scheme. PP is conducting regular water monitoring through MoEF and NABL accredited Lab. Reports submitted along with Compliance Report.

Sewage Treatment Plant details

Construction phase

PP had Provided Labour Camp with Toilets and Septic tanks. For workers working onsite for sanitation Purpose.

Operational phase

The total water requirement of the project is 1057.13 m³ per day, while fresh water requirement will be 68.288 m³. Total sewage generation will be 890.03 m³/day. PP will provide 1 no of STP's having total capacity 895 m³/day for the treatment of wastewater generated from project site. The treated water from STP is used for flushing and gardening purpose.

Storm Water Drain

PP will provide a proper stormwater drainage system within the project area.

Rain Water Harvesting

PP will provide rainwater harvesting RWH tank of 260 cum

For rainwater collected from ground surface following actions are usually taken:

- Cleaning of surface of vegetation, organic and loose materials.
- Smoothing the surface by mechanical compaction or surface binding treatment.
- Checking that the surface is free from all such chemical and organic material, which may cause chemical/bacterial contamination of harvested water.

Solid Waste Disposal

Construction phase

Waste generated in worker camps is municipal solid waste which is segregated onsite, and treated by local municipal authorities.

Operational phase

PP will provide an Organic waste converter facility at project site. The waste from project site is being collected and segregated into wet and dry waste. Wet waste will be treated in OWC unit and converted into manure. Manure from OWC facility will be used for landscaping purpose. The recyclable waste will be sold to authorized recycler. Whereas domestic organic waste, STP sludge & Horticulture waste shall be composted and used as manure within the premises.

Power Supply and consumption

Construction phase

PP have received the power supply connection from Torrent Power.

Operational phase

PP will provide connected load of 5594.10 kW. PP will provide DG set of capacity 1 x 600 kW is provided at site.

PP have provided DG set for backup Environmental infrastructures such as STP, OWC etc. and common lighting, Lifts, Fire pump etc.

Roads, Traffic and Transport details

Construction phase

PP had provided roads with proper connectivity and access during construction phase. All incoming and outgoing vehicles during construction phase are having direct access from the main road to project site, so there is no disturbance to existing traffic movement.

Operational phase

PP will propose proper connectivity to main road. To Mitigate the Impact of Pollutants from vehicular traffic during operational phase of the site, the Following measures are recommended for existing traffic Movement.

Vehicle emission controls

Adequate informatory signage's/Speed control devices are installed within premises near entry/exit gates to regulate and control the speed of outgoing/incoming traffic. Regular maintenance of the vehicles is mandatory for all the vehicles being parked in the building premises. Security persons at entry and exit point to insure the smooth traffic movement.

Housing and Slums provision

- Its is Residential and Commercial Project.
- Slum provision is not applicable to this project.

Air Environment

Presence of online AQI monitoring system on site which provides real-time AQI, PM 10 & PM 2.5 levels

Dust

Anti-smog gun is being used for dust suppression

Periodic maintenance of construction equipment and use the good quality of fuels and use of personal protective equipment.

Noise Environment

We have Monitoring the Noise level monitoring through MoEF and NABL accredited Lab every month and six-monthly report have sent to MoEF, Nagpur and RO & HQ of MPCB offices with the EC compliance condition.

No construction work is being done during night time.

Construction equipment will be well maintained to reduce the noise pollution as per the standard limits.

We have provided the earplugs, muffs to the construction staff.

Industries, Wastes and Hazards

It is a residential & Commercial project. This issue is not applicable.

Health facility

PP have provided first aid room for workers within project area. Workers are provided with facility health check-up through annual camps.

During operation phase PP have provided first aid facility. The project site is having all necessary facilities within 5 km radius.

Other Facility

The project site is having all necessary facility such as market, banks, and hospitals within 5 km radius.

Biological Environment

Plantation & Landscaping

Selection of the plant species has been done based on their adaptability to the existing geographical conditions and the vegetation composition of the region. During the development of the green belt within the project area, emphasis has been given to a selection of plant species like nitrogen-fixing species, species of ornamental values, species of very fast growth with good canopy cover, etc.

Landscape development plan

In the proposed project, the area allotted for landscaping is **4591.16 m²**. There are total 230 no's of trees proposed to be planted on-site. The trees are planted along the compound wall and along the road with adequate space between them so that their growth is not hampered. Plantation has to be taken up randomly and landscaping aspects could be taken into consideration.

Environment Monitoring Cell

Environmental management cell is being formed headed by an Environment Manager supported by adequate number of personnel having sufficient educational and professional qualification and experience to discharge number of personnel having sufficient educational and professional qualification and experience to discharge responsibilities related to environmental management including statutory compliance, pollution prevention, environmental monitoring, preventive maintenance of pollution control equipment and green belt development & maintenance. The head of the cell is directly report to the top management. This cell is the nodal agency to co-ordinate and provide necessary services on environmental issues during construction and operation of the project. This department will interact with MPCB, MoEF, CPCB and Other environment regulatory agencies. The cell will be effective till handing over of the project to society.

Environmental Management Audits:

The management audits are to determine whether the activities are conforming to the environmental management systems and effective in implanting the environmental policy. They may be internal or external, but carried out impartially and effectively by a person properly trained for it. Broad knowledge of the environmental process and expertise in relevant disciplines is also required. Appropriate audit programs and protocols will be established.

Table 2: Organization & Environment Management Cell

Sr.	Level	Designation	Purpose
1	Honorary	Director / Managing Committee	Policy
2	Manager	Environmental Scientist /Chemist	Job (*)
3	Executive	Supervisor, contractor, Engineers	Implement
4	Third Party	Environmental sampling, analysis will be done through external agency approved by MoEFCC / MPCB	Monitoring, testing

ANNEXURE VIII
ENVIRONMENT MONITORING REPORT



Mahabal Enviro Engineers Pvt. Ltd.

PLOT NOS. 13,14,17,18, GRAMPANCHAYAT BOKHARA, CHHINDWARA ROAD, KORADI NAGPUR, MAHARASHTRA, INDIA

Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

TEST REPORT



Report No.:	ME-0460231007	Date:	13.10.2023
ULR No.:	TC748723000016114F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Ambient Air	Sampling Done by	Laboratory
Sampling Location	Near Main Gate	Sample Quantity / Packing	PM ₁₀ : Filter Paper 1 X 1 No. PM _{2.5} : Filter Paper 1 X 1 No. SO ₂ : 30 mL X 2 No. PVC Bottle NO ₂ : 30 mL X 2 No. PVC Bottle
Date of Sampling	06.10.2023	Date of Receipt of Sample	07.10.2023
Sampling Procedure	As per method reference		
Date of Start of Analysis	07.10.2023	Date of Completion of Analysis	12.10.2023

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
	Discipline: Chemical Testing: Product Group: Atmospheric Pollution (Ambient Air)				
1	Sulphur Dioxide (SO ₂)	µg/m ³	8.0	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
2	Nitrogen Dioxide (NO ₂)	µg/m ³	11.9	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
3	Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	56	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
4	Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	15	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 08h.
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. # NAAQS specified as: 8 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}.
 7. The result listed refers only to the tested sample(s) and applicable parameter(s).
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Issue No 03
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Amd 04 Date
18.07.2023

Reviewed and
authorised by

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Technical Manager
Chemical Testing





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TEST REPORT



Report No.:	ME-0464231007	Date:	12.10.2023
ULR No.:	TC748723000016118F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane	WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Ambient Noise	
Date of Sampling	06.10.2023	
Sampling Procedure	CPCB Protocol for Ambient level Noise Monitoring 2015	

Sr. No.	Location	Time in h (day)	Sound Level L_{eq} dB (A) Fast Response	Sound Level L_{eq} dB (A) Slow Response	Time in h (Night)	Sound Level L_{eq} dB (A) Fast Response	Sound Level L_{eq} dB (A) Slow Response
	<u>Discipline:</u> <u>Chemical Testing:</u> <u>Product Group:</u> <u>Atmospheric Pollution</u> <u>(Ambient Noise)</u>						
1.	Project West Side	12:10	67.3	65.4	-	-	-
2.	Near Main Gate	12:00	69.2	66.3	-	-	-

As per The Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3(1) and 4(1))			
Area Code	Area Type	Limits in dB (A) weighted scale	
		Day Time (6:00 a.m. to 10:00 p.m.)	Night Time (10:00 p.m. to 6:00 a.m.)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

END OF REPORT

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TEST REPORT



Report No.:	ME-0461231007	Date:	13.10.2023
ULR No.:	TC748723000016115F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Stack Emission	Sampling Done by	Laboratory
Sampling Location	D.G. Set 160 kVA Near Sales Office	Sample Quantity / Packing	Thimble PM: 1 X 1 No. SO ₂ : 30mL X 1 No. PVC Bottle
Date of Sampling	06.10.2023	Date of Receipt of Sample	07.10.2023
Sampling Procedure	As per method reference		
Date of Start of Analysis	07.10.2023	Date of Completion of Analysis	10.10.2023

Stack Details	
Stack Identity	Stack -1
Stack attached to	D.G. Set 160 kVA
Material of construction	M.S.
Stack height above ground level (Meter)	3
Stack diameter (Meter)	0.10
Stack shape at top	Round
Type of fuel	Diesel
Fuel Consumption (L/h)	3

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)			
1	Flue gas Temperature	°C	133	IS 11255 (Part 3):2008
2	Flue gas Velocity	m/s	9.5	IS 11255 (Part 3):2008
3	Flue Gas Flow Rate	Nm ³ /h	196	IS 11255 (Part 3):2008
4	Particulate Matter (PM)	mg/Nm ³	28	IS 11255 (Part 1):1985
5	Sulphur Dioxide (SO ₂)	mg/Nm ³	BQL(LOQ:10)	IS 11255 (Part 2):1985

END OF REPORT

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TEST REPORT



Report No.:	ME-0461231007	Date:	13.10.2023
ULR No.:	TC748723000016115F		

- Note:**
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TEST REPORT



Report No.:	ME-0463231007	Date:	16.10.2023
ULR No.:	TC748723000016117F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.09.2023
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Labour Camp	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	06.10.2023	Date of Receipt of Sample	07.10.2023
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	07.10.2023	Date of Completion of Analysis	15.10.2023

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ 1)	5 Max.	15 Max.	APHA 24th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):1984
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24th Ed. 2023, 2130-B
4.	pH	-	6.9	6.5 to 8.5	No Relaxation	APHA 24th Ed. 2023, 4500-H-B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ 0.05)	0.2 Min.	1.0 Min.	APHA 24th Ed. 2023, 4500-Cl-G
6.	Total Suspended Solids	mg/L	BQL (LOQ 5)	-	-	APHA 24th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	70	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	42	200 Max.	600 Max.	APHA 24th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	54	200 Max.	600 Max.	APHA 24th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	9.0	250 Max.	1000 Max.	APHA 24th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	8.5	200 Max.	400 Max.	APHA 24th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	BQL (LOQ 1)	45 Max.	No Relaxation	APHA 24th Ed. 2023, 4500-NO ₃ -B

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Issue No 03
Date 05.12.2019.
Amd 03 Date
18.07.2023

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TEST REPORT



Report No.:	ME-0463231007	Date:	16.10.2023
ULR No.:	TC748723000016117F		

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	13.6	75 Max.	200 Max.	APHA 24th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	4.9	30 Max.	100 Max.	APHA 24th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.18	1 Max.	1.5 Max.	APHA 24th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.098	1.0 Max.	No Relaxation	IS 3025 (Part 2), 2019
	Discipline: Biological Testing; Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. #: Acceptable Limit as per IS 10500:2012, RA 2018.
 4. \$: Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018.
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TEST REPORT



Report No.:	ME-0462231007	Date: 16.10.2023
ULR No.:	TC748723000016116F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Office Area (Bisleri Water)	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	06.10.2023	Date of Receipt of Sample	07.10.2023
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	07.10.2023	Date of Completion of Analysis	15.10.2023

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing; Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24th Ed. 2023, 2130-B
4.	pH	-	6.8	6.5 to 8.5	No Relaxation	APHA 24th Ed. 2023, 4500-H-B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	18	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	14	200 Max.	600 Max.	APHA 24th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	16	200 Max.	600 Max.	APHA 24th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	1.5	250 Max.	1000 Max.	APHA 24th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	BQL (LOQ:1)	200 Max.	400 Max.	APHA 24th Ed. 2023, 4500- SO ₄ -E

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TEST REPORT



Report No.:	ME-0462231007	Date: 16.10.2023
ULR No.:	TC748723000016116F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
12.	Nitrate (as NO ₃)	mg/L	BQL (LOQ:1)	45 Max.	No Relaxation	APHA 24th Ed. 2023, 4500-NO ₃ -B
13.	Calcium (as Ca)	mg/L	4.0	75 Max.	200 Max.	APHA 24th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	1.5	30 Max.	100 Max.	APHA 24th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.16	1 Max.	1.5 Max.	APHA 24th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.046	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing; Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2018
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2018

END OF REPORT

- Note:**
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 2. LOQ: Limit of Quantification.
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 4. \$ Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018
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TEST REPORT



Report No.:	ME-0465231007	Date: 18.10.2023
ULR No.:	TC748723000016119F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village : Ranjnoli, Tal : Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: -
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	06.10.2023	Date of Receipt of Sample	07.10.2023
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	09.10.2023	Date of Completion of Analysis	18.10.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing: Product Group: Pollution & Environment (Soil)</u>			
1.	pH (1+5)	-	7.6	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 1, Page No 65: 1984
2.	Electrical Conductivity (1+5)	μS/cm	56	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 5 Page No 85: 1984
3.	Moisture Content	%	23.5	IS 2720 (Part - II): 1973
4.	Cation Exchange Capacity	meq/100gm	43.7	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III 7-2, Sodium Saturation Flame Photometry Method Page No. 104: 1984
5.	Organic Matter	%	BQL (LOQ:0.345)	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 83: 2011
6.	Grain Size (Texture) Sand	%	44.0	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
7.	Grain Size (Texture) Silt	%	16.8	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
8.	Grain Size (Texture) Clay	%	39.2	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011

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Reviewed and
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Harish Mendhi
Technical Manager
Chemical Testing





Mahabal Enviro Engineers Pvt. Ltd.

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Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

TEST REPORT



Report No.:	ME-0465231007	Date: 18.10.2023
ULR No.:	TC748723000016119F	

Sr. No.	Parameter	Unit	Result	Method Reference
9.	Texture (Class)	%	Sandy Clay	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India
10.	Available Phosphorous	mg/kg	4.90	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 12 - 1, Sodium Bicarbonate Extraction Olsen Blue Method Page No.157.: 1984
11.	Total Phosphorous	mg/kg	372	Manual for method of water, Soil and Plant analysis WL II, Page No 16: 2006
12.	Available Calcium	meq/100gm	30.3	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
13.	Available Magnesium	meq/ 100gm	12.8	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
14.	Available Sodium	meq/100gm	0.464	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
15.	Available Nitrogen	mg/kg	67.2	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 89: 2011
16.	Available Potassium	meq/100gm	0.101	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
17.	Total Copper	mg/kg	73.1	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
18.	Total Iron	mg/kg	37815	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
19.	Total Zinc	mg/kg	64.6	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. All results are expressed as received basis.
 4. The result listed refers only to the tested sample(s) and applicable parameter(s).
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TC-7487



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TEST REPORT



Report No.:	ME-0465231007N	Date: 18.10.2023
ULR No.:	-	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village : Ranjnoli, Tal : Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: -
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	06.10.2023	Date of Receipt of Sample	07.10.2023
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	09.10.2023	Date of Completion of Analysis	18.10.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing: Product Group: Pollution & Environment (Soil)			
1.	Free Lime	%	0.162	FAO Sec. III. Page no-71
2.	Total Sulphur	%	BQL (LOQ:0.05)	ASTM D 4239-18
3.	Total Manganese	mg/kg	1173	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02:2007

END OF REPORT

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Plot No. F-7, Road No. 21, MIDC Wagle Estate, Thane West - 400604, Maharashtra
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Environmental Monitoring Survey Work - Record (Monthly)

Survey Team

Mobile No.

Sushant Sahu + Sagar Sable
8369090041

Ref No.

Date

-2023

Client

Proposed Residential Project

Mr.

Mr. Vardhan Shanmugam

Address

"Miracle" Village: Ranjnoli,
Tal: Bhiwandi, Dist: Thane

Post

Safety Officer

Mobile

9962826106

E-Mail

VARADHAN.SHANMUGAM@mahindra.com

Board

Direct

Extn.

Fax

SURVEY DETAILS

Sample from	Quantity		Survey Date	Arrival time	Departure time
Stack	01	01			
Ambient	01	01			
Noise	02	02			
Work room		-			
Effluent		-			
Water Drilling	01+1	01			
Haz. Waste (Soil)	01	01			
Meteorology		-			
Other		-			

From Client: Feedback / Complaint / Instructions (you can also send them by fax)

Name:

Shanmugam

Signature:

[Signature]

INTERNAL USE

Attach on
message

DISPATCH REPORT

- ☐ Copy of this form - 1 No.
- ☐ Account statement and pending bill
- ☐ Bill & advance receipt - 3 copies
- ☐ Survey report - 2 copies

Signature of Client or Proof of delivery of Dispatch receipt



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TEST REPORT



Report No.:	ME-0322240106	Date:	10.01.2024
ULR No.:	TC748724000000293F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.12.2023
Sample Description / Type	Ambient Air	Sampling Done by	Laboratory
Sampling Location	Near Main Gate	Sample Quantity / Packing	PM ₁₀ : Filter Paper 1 X 1 No. PM _{2.5} : Filter Paper 1 X 1 No. SO ₂ : 30 mL X 2 No. PVC Bottle NO ₂ : 30 mL X 2 No. PVC Bottle
Date of Sampling	05.01.2024	Date of Receipt of Sample	06.01.2024
Sampling Procedure	As per method reference		
Date of Start of Analysis	06.01.2024	Date of Completion of Analysis	08.01.2024

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
	<u>Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Ambient Air)</u>				
1	Sulphur Dioxide (SO ₂)	µg/m ³	10.4	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
2	Nitrogen Dioxide (NO ₂)	µg/m ³	16.4	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
3	Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	59	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
4	Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	25	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 08h.
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. #- NAAQS specified as: 8 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}.
 7. The result listed refers only to the tested sample(s) and applicable parameter(s).
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Issue No 03
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18.07.2023

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TC-7487



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TEST REPORT



Report No.:	ME-0464240109	Date:	09.01.2024
ULR No.:	TC748724000000419F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane	WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Ambient Noise	
Date of Sampling	05.01.2024	
Sampling Procedure	CPCB Protocol for Ambient level Noise Monitoring 2015	

Sr. No.	Location	Time in h (day)	Sound Level L_{eq} dB (A)		Time in h (Night)	Sound Level L_{eq} dB (A)	
			Fast Response	Slow Response		Fast Response	Slow Response
	<u>Discipline: Chemical</u> <u>Testing: Product Group:</u> <u>Atmospheric Pollution</u> <u>(Ambient Noise)</u>						
1.	Project West Side	12:35	65.3	62.8	-	-	-
2.	Near Main Gate	12:05	68.7	66.5	-	-	-

As per The Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3(1) and 4(1))			
Area Code	Area Type	Limits in dB (A) weighted scale	
		Day Time (6:00 a.m. to 10:00 p.m.)	Night Time (10:00 p.m. to 6:00 a.m.)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

END OF REPORT

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TEST REPORT



Report No.:	ME-0323240106	Date:	10.01.2024
ULR No.:	TC748724000000294F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Stack Emission	Sampling Done by	Laboratory
Sampling Location	D.G. Set 160 kVA Near Sales Office	Sample Quantity / Packing	Thimble PM: 1 X 1 No. SO ₂ : 30mL X 1 No. PVC Bottle
Date of Sampling	05.01.2024	Date of Receipt of Sample	06.01.2024
Sampling Procedure	As per method reference		
Date of Start of Analysis	06.01.2024	Date of Completion of Analysis	09.01.2024

Stack Details	
Stack Identity	Stack -1
Stack attached to	D.G. Set 160 kVA
Material of construction	M.S.
Stack height above ground level (Meter)	3
Stack diameter (Meter)	0.10
Stack shape at top	Round
Type of fuel	Diesel
Fuel Consumption (L/h)	3

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing;</u> <u>Product Group: Atmospheric</u> <u>Pollution (Stack Emission)</u>			
1	Flue gas Temperature	°C	139	IS 11255 (Part 3):2008
2	Flue gas Velocity	m/s	10.7	IS 11255 (Part 3):2008
3	Flue Gas Flow Rate	Nm ³ /h	219	IS 11255 (Part 3):2008
4	Particulate Matter (PM)	mg/Nm ³	25	IS 11255 (Part 1):1985
5	Sulphur Dioxide (SO ₂)	mg/Nm ³	18	IS 11255 (Part 2):1985

END OF REPORT

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TEST REPORT



Report No.:	ME-0323240106	Date: 10.01.2024
ULR No.:	TC748724000000294F	

- Note:**
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TEST REPORT



Report No.:	ME-0385240107	Date: 13.01.2024
ULR No.:	TC748724000000348F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Sales Office (Bisleri Water)	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	06.01.2024	Date of Receipt of Sample	07.01.2024
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	07.01.2024	Date of Completion of Analysis	12.01.2024

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing; Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24 th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.1	1 Max.	5 Max.	APHA 24 th Ed. 2023, 2130-B
4.	pH	-	6.8	6.5 to 8.5	No Relaxation	APHA 24 th Ed. 2023, 4500-H ⁺ -B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24 th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24 th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	39	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	20	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	18	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	6.0	250 Max.	1000 Max.	APHA 24 th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	2.0	200 Max.	400 Max.	APHA 24 th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	1.51	45 Max.	No Relaxation	APHA 24 th Ed. 2023, 4500-NO ₃ -B

Reviewed and authorised by

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Technical Manager
Chemical Testing

Reviewed and authorised by

Pranali Kurve
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TEST REPORT



Report No.:	ME-0385240107	Date: 13.01.2024
ULR No.:	TC748724000000348F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	4.0	75 Max	200 Max.	APHA 24 th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	1.9	30 Max.	100 Max.	APHA 24 th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.16	1 Max.	1.5 Max.	APHA 24 th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	BQL (LOQ:0.03)	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. #. Acceptable Limit as per IS 10500:2012; RA 2018.
 4. \$ Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018
 5. The result listed refers only to the tested sample(s) and applicable parameter(s).
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Technical Manager
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Mahabal Enviro Engineers Pvt. Ltd.

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TEST REPORT



Report No.:	ME-0386240107	Date: 13.01.2024
ULR No.:	TC748724000000349F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Labour Camp	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	06.01.2024	Date of Receipt of Sample	07.01.2024
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	07.01.2024	Date of Completion of Analysis	12.01.2024

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24 th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24 th Ed. 2023, 2130-B
4.	pH	-	7.5	6.5 to 8.5	No Relaxation	APHA 24 th Ed. 2023, 4500-H-B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24 th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24 th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	65	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	34	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	44	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	9.0	250 Max.	1000 Max.	APHA 24 th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	4.1	200 Max.	400 Max.	APHA 24 th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	2.0	45 Max.	No Relaxation	APHA 24 th Ed. 2023, 4500-NO ₃ -B

Reviewed and authorised by

Harish Mendhi
Technical Manager
Chemical Testing

Reviewed and authorised by

Pranali Kurve
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TEST REPORT



Report No.:	ME-0386240107	Date: 13.01.2024
ULR No.:	TC748724000000349F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	10.4	75 Max	200 Max	APHA 24 th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	4.4	30 Max	100 Max	APHA 24 th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.35	1 Max	1.5 Max	APHA 24 th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.068	1.0 Max	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

- Note:**
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 2. LOQ: Limit of Quantification.
 3. #: Acceptable Limit as per IS 10500:2012; RA 2018.
 4. \$ Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018
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Issue No 03
Date 05.12.2019.
Amd 03 Date
18.07.2023

Reviewed and
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Harish Mendhi
Technical Manager
Chemical Testing

Reviewed and
authorised by

Pranali Kurve
Technical Manager
Biological Testing





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Phone: 0712-2612162/2612212 email: nagpur@mahabal.com



TEST REPORT

Report No.:	ME-0419240108	Date: 17.01.2024
ULR No.:	TC748724000000374F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	06.01.2024	Date of Receipt of Sample	08.01.2024
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	09.01.2024	Date of Completion of Analysis	13.01.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Pollution & Environment (Soil)			
1.	pH (1+5)	-	8.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 1, Page No 65: 1984
2.	Electrical Conductivity (1+5)	$\mu\text{S/cm}$	122	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 5 Page No 85: 1984
3.	Moisture Content	%	11.5	IS 2720 (Part - II): 1973
4.	Cation Exchange Capacity	meq/100gm	40.9	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III 7-2, Sodium Saturation Flame Photometry Method Page No. 104: 1984
5.	Organic Matter	%	0.845	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 83: 2011
6.	Grain Size (Texture) Sand	%	43.9	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
7.	Grain Size (Texture) Silt	%	22.6	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
8.	Grain Size (Texture) Clay	%	33.6	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011

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TEST REPORT

Report No.:	ME-0419240108	Date: 17.01.2024
ULR No.:	TC748724000000374F	

Sr. No.	Parameter	Unit	Result	Method Reference
9.	Texture (Class)	%	Sandy Clay Loam	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India
10.	Available Phosphorous	mg/kg	20.6	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 12 - 1, Sodium Bicarbonate Extraction Olsen Blue Method Page No.157. : 1984
11.	Total Phosphate	mg/kg	999	Manual for method of water, Soil and Plant analysis WL II, Page No 16: 2006
12.	Available Calcium	meq/100gm	30.5	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
13.	Available Magnesium	meq/ 100gm	9.11	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
14.	Available Sodium	meq/100gm	0.828	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
15.	Available Nitrogen	mg/kg	333	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 89: 2011
16.	Available Potassium	meq/100gm	0.386	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
17.	Total Copper	mg/kg	93.0	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
18.	Total Iron	mg/kg	48767	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
19.	Total Zinc	mg/kg	84.6	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
20.	Total Manganese	mg/kg	587	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007

END OF REPORT

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TEST REPORT

Report No.:	ME-0419240108N	Date:	17.01.2024
ULR No.:	-		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	06.01.2024	Date of Receipt of Sample	08.01.2024
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	09.01.2024	Date of Completion of Analysis	13.01.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Pollution & Environment (Soil)			
1.	Free Lime	%	0.183	FAO Sec. III. Page no-71
2.	Total Sulphur	%	BQL (LOQ:0.05)	ASTM D 4239-18

END OF REPORT

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(500 m from Hotel Rukhmini Palace Turn Opp Toyota Show Room, Near J B Sawant Bus Stop, Next to Ashida Electronics)

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Environmental Monitoring Survey Work - Record (Monthly)

Survey Team

Mobile No

Sushant + Sharu + Yogesh Bansodkar + Sayan Sable
8363090041 8106708361 7738005780

Ref No

Date

2/12/

-2023

Client

Proposed Residential Project

Mr.

Mr. Vardhan Shanmugam

Address

"Miracle" Village: Ranjnoli,
Tal: Bhiwandi, Dist: Thane

Post

Safety Officer

Mobile

9962826106

E-Mail

VARADHAN.SHANMUGAM@mahindra.com

Board

Direct

Extn.

Fax

SURVEY DETAILS

Sample from	Quantity	Survey Date	Arrival time	Departure time
Stack	✓ 01			
Ambient	✓ 01			
Noise	✓ 02			
Work room	-			
Effluent	-			
Water - Drink.	✓ 0102	2/12/23		
Haz. Waste	01			
Meteorology	-			
Other	soil -			

From Client: Feedback / Complaint / Instructions (you can also send them by fax)

Name: Shanmugam

Signature:

INTERNAL USE

DISPATCH REPORT

- ☐ Dispatched to client - 3 copies
- ☐ Account statement and pending bills
- ☐ Bill & advance received - 3 copies
- ☐ Monthly report - 2 copies

Signature of client: _____



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TEST REPORT



Report No.:	ME-0195231203	Date:	07.12.2023
ULR No.:	TC748723000019609F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.12.2023
Sample Description / Type	Ambient Air	Sampling Done by	Laboratory
Sampling Location	Near Main Gate	Sample Quantity / Packing	PM ₁₀ : Filter Paper 1 X 1 No. PM _{2.5} : Filter Paper 1 X 1 No. SO ₂ : 30 mL X 2 No. PVC Bottle NO ₂ : 30 mL X 2 No. PVC Bottle
Date of Sampling	02.12.2023	Date of Receipt of Sample	03.12.2023
Sampling Procedure	As per method reference		
Date of Start of Analysis	04.12.2023	Date of Completion of Analysis	05.12.2023

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
	Discipline: Chemical Testing: Product Group: Atmospheric Pollution (Ambient Air)				
1	Sulphur Dioxide (SO ₂)	µg/m ³	13.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
2	Nitrogen Dioxide (NO ₂)	µg/m ³	14.7	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
3	Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	56	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
4	Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	22	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 08h.
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. #- NAAQS specified as: 8 h, TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}.
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Amd 04 Date
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TEST REPORT



Report No.:	ME-0199231203	Date:	07.12.2023
ULR No.:	TC748723000019613F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane	WO No.: Verbal WO Date: 01.12.2023
Sample Description / Type	Ambient Noise	
Date of Sampling	02.12.2023	
Sampling Procedure	CPCB Protocol for Ambient level Noise Monitoring 2015	

Sr. No.	Location	Time in h (day)	Sound Level L_{eq} dB (A) Fast Response	Sound Level L_{eq} dB (A) Slow Response	Time in h (Night)	Sound Level L_{eq} dB (A) Fast Response	Sound Level L_{eq} dB (A) Slow Response
	<u>Discipline:</u> <u>Chemical Testing;</u> <u>Product Group:</u> <u>Atmospheric Pollution</u> <u>(Ambient Noise)</u>						
1.	Project West Side	12.35	66.7	63.2	-	-	-
2.	Near Main Gate	12.05	69.3	67.2	-	-	-

As per The Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3(1) and 4(1))			
Area Code	Area Type	Limits in dB (A) weighted scale	
		Day Time (6:00 a.m. to 10:00 p.m.)	Night Time (10:00 p.m. to 6:00 a.m.)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

END OF REPORT

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TEST REPORT



Report No.:	ME-0196231203	Date: 07.12.2023
ULR No.:	TC748723000019610F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.12.2023
Sample Description / Type	Stack Emission	Sampling Done by	Laboratory
Sampling Location	D.G. Set 160 kVA Near Sales Office	Sample Quantity / Packing	Thimble PM: 1 X 1 No. SO ₂ : 30mL X 1 No. PVC Bottle
Date of Sampling	02.12.2023	Date of Receipt of Sample	03.12.2023
Sampling Procedure	As per method reference		
Date of Start of Analysis	04.12.2023	Date of Completion of Analysis	05.12.2023

Stack Details	
Stack Identity	Stack -1
Stack attached to	D.G. Set 160 kVA
Material of construction	M.S.
Stack height above ground level (Meter)	3
Stack diameter (Meter)	0.10
Stack shape at top	Round
Type of fuel	Diesel
Fuel Consumption (L/h)	3

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)			
1	Flue gas Temperature	°C	128	IS 11255 (Part 3):2008
2	Flue gas Velocity	m/s	10.5	IS 11255 (Part 3):2008
3	Flue Gas Flow Rate	Nm ³ /h	220	IS 11255 (Part 3):2008
4	Particulate Matter (PM)	mg/Nm ³	23	IS 11255 (Part 1):1985
5	Sulphur Dioxide (SO ₂)	mg/Nm ³	16	IS 11255 (Part 2):1985

END OF REPORT

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TEST REPORT



Report No.:	ME-0196231203	Date: 07.12.2023
ULR No.:	TC748723000019610F	

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TEST REPORT



Report No.:	ME-0197231203	Date:	11.12.2023
ULR No.:	TC748723000019611F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Office Area (Bisleri Water)	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	02.12.2023	Date of Receipt of Sample	03.12.2023
Sampling Procedure	IS:3025 (Part I), IS 1622, APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	03.12.2023	Date of Completion of Analysis	09.12.2023

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.1	1 Max.	5 Max.	APHA 24th Ed. 2023, 2130-B
4.	pH	-	6.7	6.5 to 8.5	No Relaxation	APHA 24th Ed. 2023, 4500-H-B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24th Ed. 2023, 4500-Cl-G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	24	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	20	200 Max.	600 Max.	APHA 24th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	15	200 Max.	600 Max.	APHA 24th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	5.0	250 Max.	1000 Max.	APHA 24th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	2.3	200 Max.	400 Max.	APHA 24th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	1.27	45 Max.	No Relaxation	APHA 24th Ed. 2023, 4500-NO ₃ -B

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Pranali Kurve

Pranali Kurve
Technical Manager
Biological Testing





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TEST REPORT



Report No.:	ME-0197231203	Date: 11.12.2023
ULR No.:	TC748723000019611F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	3.6	75 Max.	200 Max.	APHA 24th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	1.5	30 Max.	100 Max.	APHA 24th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.20	1 Max.	1.5 Max.	APHA 24th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.049	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing; Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

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Biological Testing





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TEST REPORT



Report No.:	ME-0196231203	Date:	11.12.2023
ULR No.:	TC748723000019612F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Labour Camp	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	02.12.2023	Date of Receipt of Sample	03.12.2023
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	03.12.2023	Date of Completion of Analysis	09.12.2023

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24 th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24 th Ed. 2023, 2130-B
4.	pH	-	7.5	6.5 to 8.5	No Relaxation	APHA 24 th Ed. 2023, 4500-H-B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24 th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24 th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	69	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	38	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	50	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	10.0	250 Max.	1000 Max.	APHA 24 th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	4.7	200 Max.	400 Max.	APHA 24 th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	2.32	45 Max.	No Relaxation	APHA 24 th Ed. 2023, 4500-NO ₃ -B

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18.07.2023

Reviewed and
authorised by

Harish Mendhi
Technical Manager
Chemical Testing

Reviewed and
authorised by

Pranali Kurve
Technical Manager
Biological Testing





Mahabal Enviro Engineers Pvt. Ltd.

PLOT NOS. 13,14,17,18, GRAMPANCHAYAT BOKHARA, CHHINDWARA ROAD, KORADI, NAGPUR, MAHARASHTRA, INDIA

Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

TEST REPORT



Report No.:	ME-0198231203	Date: 11.12.2023
ULR No.:	TC748723000019612F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	12.0	75 Max.	200 Max.	APHA 24th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	4.9	30 Max.	100 Max.	APHA 24th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.38	1 Max.	1.5 Max.	APHA 24th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.030	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing; Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample	-	IS 15185:2016

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. #: Acceptable Limit as per IS 10500:2012; RA 2018.
 4. \$ Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018
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TEST REPORT



Report No.:	ME-0200231203	Date: 16.12.2023
ULR No.:	TC748723000019614F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.12.2023
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	02.12.2023	Date of Receipt of Sample	03.12.2023
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	07.12.2023	Date of Completion of Analysis	13.12.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing: Product Group: Pollution & Environment (Soil)			
1.	pH (1+5)	-	7.3	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 1, Page No 65: 1984
2.	Electrical Conductivity (1+5)	$\mu\text{S/cm}$	57.5	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 5 Page No 85: 1984
3.	Moisture Content	%	13.0	IS 2720 (Part - II): 1973
4.	Cation Exchange Capacity	meq/100gm	46	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III 7-2, Sodium Saturation Flame Photometry Method Page No. 104: 1984
5.	Organic Matter	%	0.628	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 83: 2011
6.	Grain Size (Texture) Sand	%	37.7	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
7.	Grain Size (Texture) Silt	%	28.7	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
8.	Grain Size (Texture) Clay	%	33.6	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011

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TEST REPORT



Report No.:	ME-0200231203	Date:	16.12.2023
ULR No.:	TC748723000019614F		

Sr. No.	Parameter	Unit	Result	Method Reference
9.	Texture (Class)	%	Clay Loam	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India
10.	Available Phosphorous	mg/kg	12.2	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 12 - 1, Sodium Bicarbonate Extraction Olsen Blue Method Page No.157 : 1984
11.	Total Phosphate	mg/kg	592	Manual for method of water, Soil and Plant analysis WL II, Page No.16: 2006
12.	Available Calcium	meq/100gm	32.8	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
13.	Available Magnesium	meq/ 100gm	12.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
14.	Available Sodium	meq/100gm	0.978	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
15.	Available Nitrogen	mg/kg	224	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No.89: 2011
16.	Available Potassium	meq/100gm	0.300	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
17.	Total Copper	mg/kg	118	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
18.	Total Iron	mg/kg	42670	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
19.	Total Zinc	mg/kg	50.4	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007

END OF REPORT

- Note:**
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TEST REPORT



Report No.:	ME-0200231203N	Date:	16.12.2023
ULR No.:	-		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.12.2023
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	02.12.2023	Date of Receipt of Sample	03.12.2023
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	07.12.2023	Date of Completion of Analysis	13.12.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing: Product Group: Pollution & Environment (Soil)			
1.	Free Lime	%	0.166	FAO Sec. III. Page no-71
2.	Total Sulphur	%	BQL (LOQ:0.05)	ASTM D 4239-18
3.	Total Manganese	mg/kg	1433	US EPA/SW 846 Method 3050B:1996, 7000B Rev 02:2007

END OF REPORT

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Environmental Monitoring Survey Work - Record (Monthly)

Survey Team

Mobile No.

Sushant Saha + Sagar Sabie
8369090061

Ref.No.

Date

3/2/2024

Client

Proposed Residential Project

Mr.

Mr. Vardhan Shanmugam

Address

"Miracle" Village: Ranjnoli,

Post

Safety Officer

Tal: Bhiwandi, Dist: Thane

Mobile

9962826106

E-Mail

VARADHAN.SHANMUGAM@mahindra.com

Board

Direct

Extn.

Fax

SURVEY DETAILS

Sample from	Quantity		Survey Date	Arrival time	Departure time
Stack	01	01	3/2/24		
Ambient	01	01			
Noise	02	02			
Work room	—	—			
Effluent	—	—			
Water drinking	02	01+1			
Haz. Waste (soil)	01	01			
Meteorology		—			
Other		—			

From Client: Feedback / Complaint / Instructions (you can also send them by fax)

Name Shanmugam

Signature

INTERNAL USE

3/2/2024

RECEIVED

DATE

DATE

- 1. Project Name
- 2. Location (District and pincode)
- 3. Client Name
- 4. Project Description
- 5. Project Status



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TEST REPORT



Report No.:	ME-0258240204	Date: 08.02.2024
ULR No.:	TC748724000002084F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 02.02.2024
Sample Description / Type	Ambient Air	Sampling Done by	Laboratory
Sampling Location	Near Main Gate	Sample Quantity / Packing	PM ₁₀ Filter Paper 1 X 1 No. PM _{2.5} Filter Paper 1 X 1 No. SO ₂ : 30 mL X 2 No. PVC Bottle NO ₂ : 30 mL X 2 No. PVC Bottle
Date of Sampling	03.02.2024	Date of Receipt of Sample	04.02.2024
Sampling Procedure	As per method reference		
Date of Start of Analysis	05.02.2024	Date of Completion of Analysis	06.02.2024

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
	Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Ambient Air)				
1	Sulphur Dioxide (SO ₂)	µg/m ³	17.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
2	Nitrogen Dioxide (NO ₂)	µg/m ³	20.9	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
3	Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	55	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
4	Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	27	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 08h.
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. #- NAAQS specified as: 8 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}.
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Sagar Yeul

Sagar Yeul
Dy. Technical Manager
Chemical Testing





Mahabal Enviro Engineers Pvt. Ltd.

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Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

TEST REPORT



Report No.:	ME-1068240214	Date: 20.02.2024
ULR No.:	TC748724000002820F	

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
7	Benzo(a)Pyrene (Particulate phase only)	ng/m ³	BQL (LOQ:0.5)	01	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No 40-47

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 24h
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. #- NAAQS specified as: 24 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia; 1 h. TWA in case of Carbon Monoxide, Ozone; Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.
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TEST REPORT



Report No.:	ME-0262240204	Date:	08.02.2024
ULR No.:	TC748724000002088F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane	WO No.: Verbal WO Date: 02.02.2024
Sample Description / Type	Ambient Noise	
Date of Sampling	03.02.2024	
Sampling Procedure	CPCB Protocol for Ambient level Noise Monitoring 2015	

Sr. No.	Location	Time in h (day)	Sound Level L_{eq} dB (A)		Time in h (Night)	Sound Level L_{eq} dB (A)	
			Fast Response	Slow Response		Fast Response	Slow Response
	<u>Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Ambient Noise)</u>						
1.	Project West Side	12:35	67.3	66.7	-	-	-
2.	Near Main Gate	12:05	67.6	65.3	-	-	-

As per The Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3(1) and 4(1))				
Area Code	Area Type	Limits in dB (A) weighted scale		
		Day Time (6:00 a.m. to 10:00 p.m.)	Night Time (10:00 p.m. to 6:00 a.m.)	
A	Industrial Area	75	70	
B	Commercial Area	65	55	
C	Residential Area	55	45	
D	Silence Zone	50	40	

END OF REPORT

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TEST REPORT



Report No.:	ME-0259240204	Date: 08.02.2024
ULR No.:	TC748724000002085F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 02.02.2024
Sample Description / Type	Stack Emission	Sampling Done by	Laboratory
Sampling Location	D.G. Set 160 kVA Near Sales Office	Sample Quantity / Packing	Thimble PM: 1 X 1 No. SO ₂ 30mL X 1No.PVC Bottle
Date of Sampling	03.02.2024	Date of Receipt of Sample	04.02.2024
Sampling Procedure	As per method reference		
Date of Start of Analysis	05.02.2024	Date of Completion of Analysis	06.02.2024

Stack Details	
Stack Identity	Stack -1
Stack attached to	D.G. Set 160 kVA
Material of construction	M.S.
Stack height above ground level (Meter)	3
Stack diameter (Meter)	0.10
Stack shape at top	Round
Type of fuel	Diesel
Fuel Consumption (L/h)	3

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)			
1	Flue gas Temperature	°C	145	IS 11255 (Part 3):2008
2	Flue gas Velocity	m/s	10.9	IS 11255 (Part 3):2008
3	Flue Gas Flow Rate	Nm ³ /h	218	IS 11255 (Part 3):2008
4	Particulate Matter (PM)	mg/Nm ³	25	IS 11255 (Part 1):1985
5	Sulphur Dioxide (SO ₂)	mg/Nm ³	20	IS 11255 (Part 2):1985

END OF REPORT

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Dy. Technical Manager
Chemical Testing





Mahabal Enviro Engineers Pvt. Ltd.

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TEST REPORT



Report No.:	ME-0259240204	Date: 08.02.2024
ULR No.:	TC748724000002085F	

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TEST REPORT



Report No.	ME-0261240204	Date: 10.02.2024
ULR No.	TC748724000002087F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.01.2024
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Labour Camp	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	03.02.2024	Date of Receipt of Sample	04.02.2024
Sampling Procedure	IS 3025 (Part I); IS 1622, APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	04.02.2024	Date of Completion of Analysis	09.02.2024

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24 th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05) 2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24 th Ed. 2023, 2130-B
4.	pH	-	7.8	6.5 to 8.5	No Relaxation	APHA 24 th Ed. 2023, 4500-H ⁺ -B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24 th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24 th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	88	500 Max.	2000 Max.	IS 3025 (Part 16) 2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	54	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	62	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	11.0	250 Max.	1000 Max.	APHA 24 th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	2.54	200 Max.	400 Max.	APHA 24 th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	2.15	45 Max.	No Relaxation	APHA 24 th Ed. 2023, 4500-NO ₃ -B

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Biological Testing





Mahabal Enviro Engineers Pvt. Ltd.

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TEST REPORT



Report No.:	ME-0261240204	Date: 10.02.2024
ULR No.:	TC748724000002087F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	13.6	75 Max.	200 Max.	APHA 24 th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	6.80	30 Max.	100 Max.	APHA 24 th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.32	1 Max.	1.5 Max.	APHA 24 th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	BQL (LOQ:0.03)	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. #: Acceptable Limit as per IS 10500:2012; RA 2018.
 4. \$: Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018
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Issue No 03
Date 05.12.2019.
Amd 03 Date
18.07.2023

Reviewed and
authorised by

Harish Mendhi
Technical Manager
Chemical Testing

Reviewed and
authorised by

Pranali Kurve
Technical Manager
Biological Testing





Mahabal Enviro Engineers Pvt. Ltd.

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Phone: **0712-2612162/2612212** email: **nagpur@mahabal.com**

TEST REPORT



Report No.:	ME-0260240204	Date:	10.02.2024
ULR No.:	TC748724000002086F		

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	2.41	75 Max.	200 Max.	APHA 24 th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	1.46	30 Max.	100 Max.	APHA 24 th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.18	1 Max.	1.5 Max.	APHA 24 th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	BQL (LOQ:0.03)	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample	-	IS 15185:2016

END OF REPORT

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Sagar Yeul

Dy. Technical Manager
Chemical Testing

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Pranali Kurve

Technical Manager
Biological Testing





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TEST REPORT



Report No.:	ME-0263240204	Date:	15.02.2024
ULR No.:	TC748724000002089F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.02.2024
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	03.02.2024	Date of Receipt of Sample	04.02.2024
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	07.02.2024	Date of Completion of Analysis	13.02.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical</u> <u>Testing: Product Group:</u> <u>Pollution & Environment</u> <u>(Soil)</u>			
1.	pH (1+5)	-	8.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 1, Page No 65: 1984
2.	Electrical Conductivity (1+5)	μS/cm	73.4	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 5 Page No 85: 1984
3.	Moisture Content	%	18.9	IS 2720 (Part - II): 1973
4.	Cation Exchange Capacity	meq/100gm	39.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III 7-2, Sodium Saturation Flame Photometry Method Page No. 104: 1984
5.	Organic Matter	%	0.698	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4-17, Page No 83: 2011
6.	Grain Size (Texture) Sand	%	37.7	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
7.	Grain Size (Texture) Silt	%	25.3	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
8.	Grain Size (Texture) Clay	%	37.0	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011

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TEST REPORT

Report No.:	ME-0263240204	Date:	15.02.2024
ULR No.:	TC748724000002089F		

Sr. No.	Parameter	Unit	Result	Method Reference
9.	Texture (Class)	%	Clay Loam	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India
10.	Available Phosphorous	mg/kg	8.76	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 12 - 1, Sodium Bicarbonate Extraction Olsen Blue Method Page No. 157.: 1984
11.	Total Phosphate	mg/kg	390	Manual for method of water, Soil and Plant analysis WL II, Page No 16: 2006
12.	Available Calcium	meq/100gm	26.4	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
13.	Available Magnesium	meq/ 100gm	11.6	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
14.	Available Sodium	meq/100gm	0.749	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
15.	Available Nitrogen	mg/kg	188	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec 4 -17, Page No 89: 2011
16.	Available Potassium	meq/100gm	0.108	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
17.	Total Copper	mg/kg	74.5	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
18.	Total Iron	mg/kg	54085	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007
19.	Total Zinc	mg/kg	42.1	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007

END OF REPORT

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TEST REPORT

Report No.:	ME-0263240204N	Date:	15.02.2024
ULR No.:	-		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.02.2024
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	03.02.2024	Date of Receipt of Sample	04.02.2024
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	07.02.2024	Date of Completion of Analysis	13.02.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Pollution & Environment (Soil)			
1.	Free Lime	%	0.175	FAO Sec. III, Page no-71
2.	Total Sulphur	%	BQL (LOQ:0.02)	IBM Manual of Procedure for Chemical & Instrumental Analysis of Ore, Minerals & Environmental Sample Sec. 6027 Pg. No. 278
3.	Total Manganese	mg/kg	1931	US EPA/SW 846 Method 3050B: 1996, 7000B Rev 02 2007

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(Opp. to from Hotel Rurhivali Phase Turn Opp. Toyota Show Room Near J B Sawant Bus Stop. Next to Asmits Electronics)

Phone: 022-2582 0558/ 3139/ 1663 Fax: 25823543 thane@mahabal.com

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Environmental Monitoring Survey Work - Record (Monthly)

Survey Team

Mobile No.

Sushant Sahy + Sagar Sable
8369090041 7738005780

Ref No.

Date

7/11/2023

Client

Proposed Residential Project

Mr.

Mr. Vardhan Shanmugam

Address

"Miracle" Village: Ranjnoli,

Post

Safety Officer

Tal: Bhiwandi, Dist: Thane

Mobile

9962826106

E-Mail

VARADHAN.SHANMUGAM@mahindra.com

Board

Direct

Extn.

Fax

SURVEY DETAILS

Sample from	Quantity	Survey Date	Arrival time	Departure time
Stack	01	01		
Ambient	01	01		
Noise	2	02		
Work room	-	-		
Effluent	-	-		
Water Drinking	02	01		
Haz. Waste		01		
Meteorology		-		
Other Soil	01	-		

From Client: Feedback / Complaint / Instructions (you can also send them by fax)

Name: Shanmugam

Signature

INTERNAL USE

[Signature]

RESEARCH REPORT

- ☐ Copy to Mr. Shanmugam
- ☐ Attached to Mr. Shanmugam and according to Mr. Shanmugam
- ☐ Copy to Mr. Shanmugam and Mr. Shanmugam
- ☐ Copy to Mr. Shanmugam and Mr. Shanmugam



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TEST REPORT



Report No. : ME-0583231108	Date: 11.11.2023
ULR No. : TC748723000018028F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Ambient Air	Sampling Done by	Laboratory
Sampling Location	Near Main Gate	Sample Quantity / Packing	PM ₁₀ Filter Paper 1 X 1 No. PM _{2.5} Filter Paper 1 X 1 No. SO ₂ : 30 mL X 2 No. PVC Bottle NO ₂ : 30 mL X 2 No. PVC Bottle
Date of Sampling	07.11.2023	Date of Receipt of Sample	08.11.2023
Sampling Procedure	As per method reference		
Date of Start of Analysis	08.11.2023	Date of Completion of Analysis	09.11.2023

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
	Discipline: Chemical Testing: Product Group: Atmospheric Pollution (Ambient Air)				
1	Sulphur Dioxide (SO ₂)	µg/m ³	8.5	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
2	Nitrogen Dioxide (NO ₂)	µg/m ³	10.1	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
3	Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	59	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
4	Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	23	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 08h.
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. #- NAAQS specified as: 8 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}.
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TEST REPORT



Report No.	ME-0587231108	Date:	16.11.2023
ULR No.	TC748723000018032F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane	WO No.: Verbal WO Date: 06.11.2023
Sample Description / Type	Ambient Noise	
Date of Sampling	07.11.2023	
Sampling Procedure	CPCB Protocol for Ambient level Noise Monitoring 2015	

Sr. No.	Location	Time in h (day)	Sound Level L_{eq} dB (A) Fast Response	Sound Level L_{eq} dB (A) Slow Response	Time in h (Night)	Sound Level L_{eq} dB (A) Fast Response	Sound Level L_{eq} dB (A) Slow Response
	<u>Discipline:</u> <u>Chemical Testing:</u> <u>Product Group:</u> <u>Atmospheric Pollution</u> <u>(Ambient Noise)</u>						
1.	Project West Side	12:10	65.7	63.2	-	-	-
2.	Near Main Gate	12:00	68.5	66.9	-	-	-

As per The Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3(1) and 4(1))			
Area Code	Area Type	Limits in dB (A) weighted scale	
		Day Time (6:00a.m. to 10:00 p.m.)	Night Time (10:00 p.m. to 6:00 a.m.)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

END OF REPORT

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TEST REPORT



Report No.:	ME-0584231108	Date:	17.11.2023
ULR No.:	TC748723000018029F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Stack Emission	Sampling Done by	Laboratory
Sampling Location	D.G. Set 160 kVA Near Sales Office	Sample Quantity / Packing	Thimble PM: 1 X 1 No. SO ₂ : 30mL X 1 No. PVC Bottle
Date of Sampling	07.11.2023	Date of Receipt of Sample	08.11.2023
Sampling Procedure	As per method reference		
Date of Start of Analysis	08.11.2023	Date of Completion of Analysis	10.11.2023

Stack Details	
Stack Identity	Stack -1
Stack attached to	D.G. Set 160 kVA
Material of construction	M.S.
Stack height above ground level (Meter)	3
Stack diameter (Meter)	0.10
Stack shape at top	Round
Type of fuel	Diesel
Fuel Consumption (L/h)	3

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Atmospheric Pollution (Stack Emission)			
1	Flue gas Temperature	°C	130	IS 11255 (Part 3):2008
2	Flue gas Velocity	m/s	10.4	IS 11255 (Part 3):2008
3	Flue Gas Flow Rate	Nm ³ /h	216	IS 11255 (Part 3):2008
4	Particulate Matter (PM)	mg/Nm ³	23	IS 11255 (Part 1):1985
5	Sulphur Dioxide (SO ₂)	mg/Nm ³	11	IS 11255 (Part 2):1985

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TEST REPORT



Report No.:	ME-0584231108	Date: 17.11.2023
ULR No.:	TC748723000018029F	

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TEST REPORT



Report No.:	ME-0585231108	Date:	17.11.2023
ULR No.:	TC748723000018030F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.10.2023
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Office Area (Bisleri Water)	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	07.11.2023	Date of Receipt of Sample	08.11.2023
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	08.11.2023	Date of Completion of Analysis	16.11.2023

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24th Ed. 2023, 2130-B
4.	pH	-	6.5	6.5 to 8.5	No Relaxation	APHA 24th Ed. 2023, 4500-H ⁺ -B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	20	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	8	200 Max.	600 Max.	APHA 24th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	16	200 Max.	600 Max.	APHA 24th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	4.0	250 Max.	1000 Max.	APHA 24th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	3.15	200 Max.	400 Max.	APHA 24th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	1.35	45 Max.	No Relaxation	APHA 24th Ed. 2023, 4500-NO ₃ -B

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Biological Testing





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TEST REPORT



Report No.	ME-0585231108	Date: 17.11.2023
ULR No.	TC748723000018030F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	4.0	75 Max.	200 Max.	APHA 24th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	1.5	30 Max.	100 Max.	APHA 24th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.22	1 Max.	1.5 Max.	APHA 24th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.101	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

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TEST REPORT



Report No.:	ME-0586231108	Date:	17.11.2023
ULR No.:	TC748723000018031F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 05.11.2023
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Labour Camp	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	07.11.2023	Date of Receipt of Sample	08.11.2023
Sampling Procedure	IS:3025 (Part I); IS 1622; APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	08.11.2023	Date of Completion of Analysis	16.11.2023

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24th Ed. 2023, 2130-B
4.	pH	-	6.5	6.5 to 8.5	No Relaxation	APHA 24th Ed. 2023, 4500-H-B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24th Ed. 2023, 4500-Cl G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	35	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	16	200 Max.	600 Max.	APHA 24th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	26	200 Max.	600 Max.	APHA 24th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	5.0	250 Max.	1000 Max.	APHA 24th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	3.66	200 Max.	400 Max.	APHA 24th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	1.22	45 Max.	No Relaxation	APHA 24th Ed. 2023, 4500-NO ₃ -B

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Amd 03 Date
18.07.2023

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Technical Manager
Chemical Testing

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Pranali Kurve
Technical Manager
Biological Testing





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Phone: 0712-2612162/2612212 email: nagpur@mahabal.com

TEST REPORT



Report No.:	ME-0586231108	Date: 17.11.2023
ULR No.:	TC748723000018031F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	7.2	75 Max.	200 Max.	APHA 24th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	1.9	30 Max.	100 Max.	APHA 24th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.28	1 Max.	1.5 Max.	APHA 24th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.062	1.0 Max.	No Relaxation	IS:3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. #: Acceptable Limit as per IS 10500:2012; RA 2018.
 4. \$: Permissible Limit in the Absence of Alternate Source as per IS 10500:2012 RA 2018.
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TEST REPORT



Report No.:	ME-0588231108	Date:	21.11.2023
ULR No.:	TC748723000018033F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village : Ranjnoli, Tal : Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: -
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	07.11.2023	Date of Receipt of Sample	08.11.2023
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	09.11.2023	Date of Completion of Analysis	17.11.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing: Product Group: Pollution & Environment (Soil)			
1.	pH (1+5)	-	9.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 1, Page No 65: 1984
2.	Electrical Conductivity (1+5)	μ S/cm	228	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 5 Page No 85: 1984
3.	Moisture Content	%	12.5	IS 2720 (Part - II): 1973
4.	Cation Exchange Capacity	meq/100gm	42.8	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III 7-2, Sodium Saturation Flame Photometry Method Page No. 104: 1984
5.	Organic Matter	%	BQL (LOQ:0.345)	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 83: 2011
6.	Grain Size (Texture) Sand	%	45.0	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
7.	Grain Size (Texture) Silt	%	18.6	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011
8.	Grain Size (Texture) Clay	%	36.4	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India: 2011

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TEST REPORT



Report No.:	ME-0588231108	Date:	21.11.2023
ULR No.:	TC748723000018033F		

Sr. No.	Parameter	Unit	Result	Method Reference
9.	Texture (Class)	%	Sandy Clay Loam	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India
10.	Available Phosphorous	mg/kg	3.74	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 12 - 1, Sodium Bicarbonate Extraction Olsen Blue Method Page No.157 : 1984
11.	Total Phosphorous	mg/kg	737	Manual for method of water, Soil and Plant analysis WL II, Page No 16: 2006
12.	Available Calcium	meq/100gm	29.7	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
13.	Available Magnesium	meq/ 100gm	12.6	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
14.	Available Sodium	meq/100gm	0.308	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
15.	Available Nitrogen	mg/kg	137	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec 4 -17, Page No 89: 2011
16.	Available Potassium	meq/100gm	0.147	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
17.	Total Copper	mg/kg	145	US EPA/SW 846 Method 3050B-1996, 7000B Rev.02: 2007
18.	Total Iron	mg/kg	54260	US EPA/SW 846 Method 3050B-1996, 7000B Rev.02: 2007
19.	Total Zinc	mg/kg	130	US EPA/SW 846 Method 3050B-1996, 7000B Rev.02: 2007

END OF REPORT

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TEST REPORT



Report No.:	ME-0588231108N	Date:	21.11.2023
ULR No.:	-		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village : Ranjnoli, Tal : Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: -
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	07.11.2023	Date of Receipt of Sample	08.11.2023
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	09.11.2023	Date of Completion of Analysis	17.11.2023

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical</u> <u>Testing: Product Group:</u> <u>Pollution & Environment</u> <u>(Soil)</u>			
1.	Free Lime	%	0.137	FAO Sec. III, Page no-71
2.	Total Sulphur	%	0.061	ASTM D 4239-18
3.	Total Manganese	mg/kg	1180	US EPA/SW 846 Method 3050B:1996, 7000B Rev 02:2007

END OF REPORT

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Environmental Monitoring Survey Work - Record (Monthly)

Survey Team

Mobile No.

Sitaram, Sony Singh
9137781041

Ref. No.

Date 05 - 03 - 2024

Client

Proposed Residential Project

Mr.

Mr. Vardhan Shanmugam

Address

"Miracle" Village: Ranjnoli,
Tal: Bhiwandi, Dist: Thane

Post

Safety Officer

Mobile

9962826106

E-Mail

VARADHAN.SHANMUGAM@mahindra.com

Board

Direct

Extn.

Fax

SURVEY DETAILS

Sample from	Quantity	Survey Date	Arrival time	Departure time
Stack	01 01	05/03/2024	10:30	18:30
Ambient	01 01			
Noise	02 02			
Work room	- -			
Effluent	- -			
Water	02 01			
Haz. Waste	01 01			
Meteorology	- -			
Other	- -			

From Client: Feedback / Complaint / Instructions (you can also send them by fax)

Name: Shanmugam Vardhan

Signature:

INTERNAL USE

DISPATCH REPORT

- ☐ Copy of this form - 1 No.
- ☐ Account statement and pending bills
- ☐ Bill & advance receipt - 3 copies
- ☐ Survey report - 2 copies

Signature of Client for Proof of Delivery of Dispatched Documents



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TEST REPORT



Report No.:	ME-0364240306	Date: 09.03.2024
ULR No.:	TC748724000004026F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 02.02.2024
Sample Description / Type	Ambient Air	Sampling Done by	Laboratory
Sampling Location	Near Main Gate	Sample Quantity / Packing	PM ₁₀ : Filter Paper 1 X 1 No. PM _{2.5} : Filter Paper 1 X 1 No. SO ₂ : 30 mL X 2 No. PVC Bottle NO ₂ : 30 mL X 2 No. PVC Bottle
Date of Sampling	05.03.2024	Date of Receipt of Sample	06.03.2024
Sampling Procedure	As per method reference		
Date of Start of Analysis	06.03.2024	Date of Completion of Analysis	08.03.2024

Sr. No.	Parameter	Unit	Result	#NAAQS	Method Reference
	Discipline: Chemical Testing: Product Group: Atmospheric Pollution (Ambient Air)				
1	Sulphur Dioxide (SO ₂)	µg/m ³	11.1	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
2	Nitrogen Dioxide (NO ₂)	µg/m ³	15.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
3	Particulate Matter (size less than 10µm) or PM ₁₀	µg/m ³	38	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
4	Particulate Matter (size less than 2.5µm) or PM _{2.5}	µg/m ³	21	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
 2. LOQ: Limit of Quantification.
 3. Duration of Sampling: 08h.
 4. TWA: Time Weighted Average
 5. NAAQS: National Ambient Air Quality Standard
 6. #- NAAQS specified as: 8 h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}.
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TEST REPORT

Report No.:	ME-0368240306	Date:	09.03.2024
ULR No.:	TC748724000004030F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane	WO No.: Verbal WO Date: 04.03.2024
Sample Description / Type	Ambient Noise	
Date of Sampling	05.03.2024	
Sampling Procedure	CPCB Protocol for Ambient level Noise Monitoring 2015	

Sr. No.	Location	Time in h (day)	Sound Level L_{eq} dB (A)		Time in h (Night)	Sound Level L_{eq} dB (A)	
			Fast Response	Slow Response		Fast Response	Slow Response
	<u>Discipline: Chemical</u> <u>Testing: Product Group:</u> <u>Atmospheric Pollution</u> <u>(Ambient Noise)</u>						
1.	Project West Side	12:20	69.7	64.0	-	-	-
2.	Near Main Gate	12:00	64.3	60.9	-	-	-

As per The Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3(1) and 4(1))				
Area Code	Area Type	Limits in dB (A) weighted scale		
		Day Time (6:00a.m. to 10:00 p.m.)	Night Time (10:00 p.m. to 6:00 a.m.)	
A	Industrial Area	75	70	
B	Commercial Area	65	55	
C	Residential Area	55	45	
D	Silence Zone	50	40	

END OF REPORT

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TEST REPORT



Report No.:	ME-0365240306	Date:	09.03.2024
ULR No.:	TC748724000004027F		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 02.02.2024
Sample Description / Type	Stack Emission	Sampling Done by	Laboratory
Sampling Location	D.G. Set 160 kVA Near Sales Office	Sample Quantity / Packing	Thimble PM: 1 X 1 No. SO ₂ : 30mL X 1 No PVC Bottle
Date of Sampling	05.03.2024	Date of Receipt of Sample	06.03.2024
Sampling Procedure	As per method reference		
Date of Start of Analysis	06.03.2024	Date of Completion of Analysis	07.03.2024

Stack Details	
Stack Identity	Stack -1
Stack attached to	D.G. Set 160 kVA Near Sales Office
Material of construction	M.S.
Stack height above ground level (Meter)	3
Stack diameter (Meter)	0.10
Stack shape at top	Round
Type of fuel	Diesel
Fuel Consumption (L/h)	3

Sr. No.	Parameter	Unit	Result	Method Reference
	<u>Discipline: Chemical Testing;</u> <u>Product Group: Atmospheric</u> <u>Pollution (Stack Emission)</u>			
1	Flue gas Temperature	°C	133	IS 11255 (Part 3):2008
2	Flue gas Velocity	m/s	9.6	IS 11255 (Part 3):2008
3	Flue Gas Flow Rate	Nm ³ /h	198	IS 11255 (Part 3):2008
4	Particulate Matter (PM)	mg/Nm ³	24	IS 11255 (Part 1):1985
5	Sulphur Dioxide (SO ₂)	mg/Nm ³	15	IS 11255 (Part 2):1985

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TEST REPORT



Report No. :	ME-0365240306	Date: 09.03.2024
ULR No. :	TC748724000004027F	

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TEST REPORT



Report No.	ME-0367240306	Date: 13.03.2024
ULR No.	TC748724000004029F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.02.2024
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Labour Camp	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	05.03.2024	Date of Receipt of Sample	06.03.2024
Sampling Procedure	IS: 3025 (Part I), IS 1622, APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	06.03.2024	Date of Completion of Analysis	12.03.2024

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing; Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ: 1)	5 Max.	15 Max.	APHA 24 th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.2	1 Max.	5 Max.	APHA 24 th Ed. 2023, 2130-B
4.	pH	-	6.8	6.5 to 8.5	No Relaxation	APHA 24 th Ed. 2023, 4500-H ⁺ -B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ: 0.05)	0.2 Min.	1.0 Min.	APHA 24 th Ed. 2023, 4500-Cl G
6.	Total Dissolved Solids	mg/L	89	500 Max.	2000 Max.	IS 3025 (Part 16):2023
7.	Total Suspended Solids	mg/L	BQL (LOQ: 5)	-	-	APHA 24 th Ed. 2023, 2540-D
8.	Alkalinity Total (as CaCO ₃)	mg/L	48	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	50	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	15.0	250 Max.	1000 Max.	APHA 24 th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	2.3	200 Max.	400 Max.	APHA 24 th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	2.15	45 Max.	No Relaxation	APHA 24 th Ed. 2023, 4500-NO ₃ -B

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TEST REPORT



Report No.	ME-0367240306	Date: 13.03.2024
ULR No.	TC748724000004029F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	15.2	75 Max.	200 Max.	APHA 24 th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	2.9	30 Max.	100 Max.	APHA 24 th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.29	1 Max.	1.5 Max.	APHA 24 th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.082	1.0 Max.	No Relaxation	IS 3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample	-	IS 15185:2016

END OF REPORT

- Note:**
1. BQL: Below Quantification Limit.
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Issue No 03
Date 05.12.2019.
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18.07.2023

Reviewed and
authorised by

Harish Mendhi
Technical Manager
Chemical Testing

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Pranali Kurve
Technical Manager
Biological Testing





Mahabal Enviro Engineers Pvt. Ltd.

PLOT NOS. 13,14,17, 18, GRAMPANCHAYAT BOKHARA, CHHINDWARA ROAD, KORADI, NAGPUR, MAHARASHTRA, INDIA
Phone: **0712-2612162/2612212** email: **nagpur@mahabal.com**

TEST REPORT



Report No.:	ME-0366240306	Date: 13.03.2024
ULR No.:	TC748724000004028F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 01.02.2024
Sample Description / Type	Drinking water	Sampling Done by	Laboratory
Sampling Location	Near Office Area (Bisleri Bottle)	Sample Quantity / Packing	2L X 1 No. PVC Can 500 mL X 1 No. PVC Can 250 mL X 1 No. Sterilized Glass Bottle
Date of Sampling	05.03.2024	Date of Receipt of Sample	06.03.2024
Sampling Procedure	IS 3025 (Part I), IS 1622, APHA 24 th Ed. 2023, 1060-B, 9060 A		
Date of Start of Analysis	06.03.2024	Date of Completion of Analysis	12.03.2024

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
	Discipline: Chemical Testing: Product Group: Water (Drinking Water)					
1.	Colour	Hazen	BQL (LOQ:1)	5 Max.	15 Max.	APHA 24 th Ed. 2023, 2120-B
2.	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025 (Part 05):2018
3.	Turbidity	NTU	0.3	1 Max.	5 Max.	APHA 24 th Ed. 2023, 2130-B
4.	pH	-	6.7	6.5 to 8.5	No Relaxation	APHA 24 th Ed. 2023, 4500-H ⁺ -B
5.	Free Chlorine (Residual)	mg/L	BQL (LOQ:0.05)	0.2 Min.	1.0 Min.	APHA 24 th Ed. 2023, 4500-Cl-G
6.	Total Suspended Solids	mg/L	BQL (LOQ:5)	-	-	APHA 24 th Ed. 2023, 2540-D
7.	Total Dissolved Solids	mg/L	97	500 Max.	2000 Max.	IS 3025 (Part 16):2023
8.	Alkalinity Total (as CaCO ₃)	mg/L	36	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2320-B
9.	Total Hardness (as CaCO ₃)	mg/L	56	200 Max.	600 Max.	APHA 24 th Ed. 2023, 2340-C
10.	Chloride (as Cl)	mg/L	28.0	250 Max.	1000 Max.	APHA 24 th Ed. 2023, 4500-Cl-B
11.	Sulphate (as SO ₄)	mg/L	4.6	200 Max.	400 Max.	APHA 24 th Ed. 2023, 4500-SO ₄ -E
12.	Nitrate (as NO ₃)	mg/L	1.10	45 Max.	No Relaxation	APHA 24 th Ed. 2023, 4500-NO ₃ -B

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TEST REPORT



Report No.:	ME-0366240306	Date: 13.03.2024
ULR No.:	TC748724000004028F	

Sr. No.	Parameter	Unit	Result	#Limit	\$Limit	Method Reference
13.	Calcium (as Ca)	mg/L	16.0	75 Max.	200 Max.	APHA 24 th Ed. 2023, 3500-Ca-B
14.	Magnesium (as Mg)	mg/L	3.9	30 Max.	100 Max.	APHA 24 th Ed. 2023, 3500-Mg-B
15.	Fluoride (as F)	mg/L	0.14	1 Max.	1.5 Max.	APHA 24 th Ed. 2023, 4500-F, D
	Product Group: Residues in water					
16.	Iron (as Fe)	mg/L	0.094	1.0 Max.	No Relaxation	IS 3025 (Part 2), 2019
	Discipline: Biological Testing: Product Group: Water (Drinking water)					
17.	Total Coliforms	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016
18.	<i>Escherichia coli</i>	/100mL	Absent	Shall not be detectable in any 100 mL Sample.	-	IS 15185:2016

END OF REPORT

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TEST REPORT



Report No.:	ME-0369240306	Date: 18.03.2024
ULR No.:	TC748724000004031F	

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.03.2024
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	05.03.2024	Date of Receipt of Sample	06.03.2024
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	08.03.2024	Date of Completion of Analysis	18.03.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Pollution & Environment (Soil)			
1.	pH (1+5)	-	8.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 1, Page No 65. 1984
2.	Electrical Conductivity (1+5)	µS/cm	163	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 5 Page No 85. 1984
3.	Moisture Content	%	9.48	IS 2720 (Part - II). 1973
4.	Cation Exchange Capacity	meq/100gm	53.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III 7-2, Sodium Saturation Flame Photometry Method Page No. 104. 1984
5.	Organic Matter	%	0.986	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India. Sec.4 -17, Page No 83. 2011
6.	Grain Size (Texture) Sand	%	43.5	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India. 2011
7.	Grain Size (Texture) Silt	%	11.3	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India. 2011
8.	Grain Size (Texture) Clay	%	45.2	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India. 2011

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TEST REPORT



Report No.:	ME-0369240306	Date: 18.03.2024
ULR No.:	TC748724000004031F	

Sr. No.	Parameter	Unit	Result	Method Reference
9.	Texture (Class)	%	Clay	Manual of Soil Testing Department of Agriculture & Cooperation, Ministry of Agriculture Govt. India
10.	Available Phosphorous	mg/kg	45.4	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 12 - 1, Sodium Bicarbonate Extraction Olsen Blue Method Page No.157.: 1984
11.	Total Phosphate	mg/kg	685	Manual for method of water, Soil and Plant analysis WL II, Page No 16: 2006
12.	Available Calcium	meq/100gm	42.3	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
13.	Available Magnesium	meq/ 100gm	9.09	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Titration Method, Page No. 115: 1984
14.	Available Sodium	meq/100gm	1.0	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
15.	Available Nitrogen	mg/kg	257	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India, Sec.4 -17, Page No 89: 2011
16.	Available Potassium	meq/100gm	0.548	Physical and Chemical methods of Soil and Water Analysis Food and Agriculture Organization of the United Nations (FAO) Sec. III, 8 - 1 Ammonium Acetate Extraction Flame Photometric Method, Page No. 115: 1984
17.	Total Copper	mg/kg	101	US EPA/SW 846 Method 3050B:1996, 7000B Rev 02: 2007
18.	Total Iron	mg/kg	92732	US EPA/SW 846 Method 3050B:1996, 7000B Rev 02: 2007
19.	Total Zinc	mg/kg	93.1	US EPA/SW 846 Method 3050B:1996, 7000B Rev 02: 2007

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TEST REPORT



Report No.:	ME-0369240306N	Date:	18.03.2024
ULR No.:	-		

Name and Address of Customer	PROPOSED RESIDENTIAL PROJECT "MIRACLE" Village: Ranjnoli, Tal: Bhiwandi, Dist: Thane		WO No.: Verbal WO Date: 04.03.2024
Sample Description / Type	Soil	Sampling Done by	Laboratory
Sampling Location	Near Site Area	Sample Quantity / Packing	1 kg X 1 No. Polyethene bag
Date of Sampling	05.03.2024	Date of Receipt of Sample	06.03.2024
Sampling Procedure	Manual of Soil Testing, Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. India		
Date of Start of Analysis	08.03.2024	Date of Completion of Analysis	18.03.2024

Sr. No.	Parameter	Unit	Result	Method Reference
	Discipline: Chemical Testing; Product Group: Pollution & Environment (Soil)			
1.	Free Lime	%	0.141	FAO Sec. III, Page no-71
2.	Total Sulphur	%	BQL (LOQ:0.02)	IBM Manual of Procedure for Chemical & Instrumental Analysis of Ore, Minerals & Environmental Sample Sec 6027 Pg. No. 278
3.	Total Manganese	mg/kg	67320	US EPA/SW 846 Method 3050B:1996, 7000B Rev.02: 2007

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