

Letter No. VAB/ENV/2026-27/21

Date: 27/05/2026

To,  
The Director,  
Ministry of Environment and Forest,  
Regional Office (Southern Zone), Kendriya Sadan,  
4<sup>th</sup> Floor, 17<sup>th</sup> Main Road, 2<sup>nd</sup> Block, Koramangala,  
Bengaluru, Karnataka- 560034

**Subject:**

Submission of 3<sup>rd</sup> six-monthly compliance report to the conditions of Environment Clearance [IA-J-11011/946/2007-IA-II(IND-I)] for M/s. Vedanta Iron and Steel Ltd, Value-Added Business (Formerly Sesa Goa Ltd.)

**Reference:**

1. IA-J-11011/946/2007-IA-II(IND-I) dated 18/10/2024

Respected Sir,

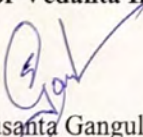
With respect to above references, please find enclosed herewith: 2<sup>nd</sup> six-monthly compliance report to Environment Clearance File No: IA-J-11011/946/2007-IA-II(IND-I) dated 18/10/2024 for the period **October'2025 to March'26** for M/s. Vedanta Iron and Steel Ltd, Value-Added Business (Formerly Sesa Goa Ltd.).

Project Name: Proposed expansion in production capacity of Pig Iron Plant from 1 MTPA to 1.2 MTPA by increasing the production capacity of existing BF3 (from 0.65 MTPA to 0.85 MTPA) and sinter plant (from 1 MTPA to 1.2 MTPA) through debottlenecking and Installation of DI pipe Plant from 0.3 MTPA to 0.36 MTPA under clause 7(ii) of EIA Notification 2006 amended from time to time At villages: Amona and Navelim, Taluka: Bicholim, District: North Goa (Goa). The annexures are enclosed along with the compliance status report.

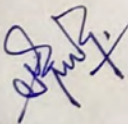
Thanking you.

Yours faithfully

**For Vedanta Iron and Steel Limited- Value Added Business**

  
Susanta Ganguli  
CEO- Value Added Business

Cc: (i) Member Secretary of GSPCB and (ii) Member Secretary of CPCB (SZO)

  
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CIN: L13209MH1965PLC291394

Sensitivity: Public (C4)

**Compliance Report to**

**Environmental Clearance File No: IA-J-11011/946/2007-IA.II(I)**

**(October'2025-March'26)**

**Project Name:** Proposed expansion in production capacity of Pig Iron Plant from 1 MTPA to 1.2 MTPA by increasing the production capacity of existing BF3 (from 0.65 MTPA to 0.85 MTPA) and sinter plant (from 1 MTPA to 1.2 MTPA) through debottlenecking and Installation of DI pipe Plant from 0.3 MTPA to 0.36 MTPA under clause 7(ii) of EIA Notification 2006 amended from time to time At villages: Amona and Navelim, Taluka: Bicholim, District: North Goa (Goa)..

Sr. no.	Conditions of EC	Compliance status
<b>A. Specific Conditions</b>		
i.	This Environmental clearance is granted subject to outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	Noted.  Complied. All the Environmental Protection Measures are compiled and as a part of the recommendations made in EIA/EMP Upgradation of ESP in Sinter Plant and Additional 2nos of Silos to Blast furnace 3 Gas cleaning plant are completed
ii.	The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	Complied. As a part of carbon sequestration, every year plantation is carried out in and around the plant premises during monsoons. FY 25-26, 1910 Nos of plantations within plant premises, and 700nos along the boundaries and 730nos in the vicinity of wetland is done thereby completing 3340nos of plantation. <b>Annexure I-Plantation photos</b>
iii.	As reported, Amona is at 0.3 km in WNW direction, Navelim-Maina at a distance of 0.4 km in SE direction of project site along with other sensitive areas within the study area of the project site. Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The project proponent needs to strengthen green belt all around the	Complied.As a part of mitigation measures there are windshields along the plant boundaries, windshields with top sprinklers, thick green belt developed inside and along the boundaries, also gap filling is done every year in monsoons. As a part of the environmental monitoring programme manual AAQM monitoring is carried out weekly twice in Amona, Maina and Navelim village

	plant area to reduce the dust pollution. The PP shall also include some of these locations in its environmental monitoring programme.	<b>Annexure II: AAQM village monitoring reports</b>
iv.	Mandovi river is reported adjacent to plant site in SW direction, Cudnem River at 0.5 km in NNW direction of project site along with other water bodies within study area of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters: along with Soil conservation scheme and multiple Erosion control measures shall be implemented. The ground water in the vicinity of the rivers must be monitored periodically and reported to the IRO.	Complied Proper drainage systems are available to protect natural drainage and its flow. Pre and post monsoon ground water monitoring is done at Amona, Navelim and Maina village. <b>Annexure III: Pre and post monsoon ground water monitoring reports</b>
v.	The water requirement of 13896 KLD which shall be sourced from Bandhara Valvonti River for fresh water, saline water from Mandovi river, rainwater from harvested pits and PWD water for domestic consumption. PP shall obtain necessary permission from the Competent Authority. No ground water abstraction is permitted.	Complied. Water withdrawal permissions are available. No ground water abstraction is done at the plant <b>Annexure IV: Water withdrawal permissions</b>
vi.	PP shall strictly implement the mitigation measures to minimise the pollution and undertake continuous monitoring of pollutants.	Complied. As a part of mitigation measures we have Bag house systems, Gas cleaning plant, ESP's, Windshields along the plant boundaries, Rain guns, fog cannons, Enclosed conveyors, Tarpaulin tying on trucks top and material heaps, Speed limit to vehicles to avoid fugitive dust during movement within plant premises, Road sweeping machine, thick green belt developed, also for continuous monitoring of pollutants there are 4nos of CAAQMS stations and stack analyzers installed and data is continuously getting communicated to GSPCB and CPCB <b>Annexure V: Mitigation measures</b>
vii.	Three tier Green Belt shall be maintained in at least 33% of the project area along the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.  a. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with a width of 25 meters with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards sensitive areas nearby project site such as Amona Village and Navelim village.	Complied. Green Belt has been developed within 54 hectares (33.5% of total land) with a density of 2,500 plants per hectare. Further strengthening is done by gap filling every year in monsoons. Green belt is also developed both towards Amona, Navelim village. FY 25-26, 1910 Nos of plantations within plant premises, 700nos along the boundaries and 730nos in the vicinity of wetland thereby completing 3340nos of plantation. In addition, wind shields have been installed at the boundaries. <b>Annexure VI: Green belt developed along the boundaries and windshield</b>

	b. PP shall practice geotagging of plant for better monitoring. PP shall also try to develop additional plantation in the nearby school in consultation with the school administration. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.	Complied. Geotagging is done in green belt area. Plantation is also carried out in schools.
viii.	The PP is advised to undertake plantation in the earmarked 33% greenbelt area as a part of tree plantation campaign 'Ek Ped Maa Ke Naam' Campaign and the details of the same shall be uploaded on MeriLiFE portal at ( <a href="https://merilife.nic.in">https://merilife.nic.in</a> ) .	Plantation taken up under 'Ek Ped Maa Ke Naam' Campaign FY 25-26 from June-September'25 and details were uploaded on MeriLiFE portal at ( <a href="https://merilife.nic.in">https://merilife.nic.in</a> ). <b>Annexure VII: Details of plantation uploaded on MeriLiFE portal</b>
ix.	All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC. PP shall strictly comply with the revised timeline for completion of activities envisaged in the action plan of the earlier PH.	Complied. The proposed activities under the CER are under implementation. <b>Annexure VIII: Details of CER implementation</b>
x.	The project proponent shall undertake village adoption programme and prepare and implement the action plan to develop them into a model village.	Complied. The holistic development of the nearby villages is going on through numerous CSR interventions in Health, Education, infra. Development, Agriculture, Water & Sanitation, and sustainable livelihood opportunities. Project Gram Nirman is already under implementation in nearby villages. MHU vehicle is operational in all nearby villages through Medihelp foundation. To create job opportunities for youths we provide certified computer training programme. To develop the digital learning of children at younger age, we have developed computer labs
xi.	The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.	Complied Approved wildlife management plan for 5 years received from the State Forest Department, Govt. of Goa, the implementation of the same is in progress. Communications from the Goa Forest department are attached in annexure. As a part of the plan total 67.7lakhs is given to forest department which includes 25 nos. of trap cameras, Sponsorships towards Bird Festival and Wildlife Week celebration, financial support for establishing water holes in wildlife buffer area and Rescue van along with rescue cage was handed over to forest department. <b>Annexure IX: Activities carried out as per approved wildlife management plan</b>
xii.	Top Recovery Turbine shall be installed in BF3. BF 1 & 2 shall be equipped with stove waste recovery, cast house and stock house ventilation system and slag granulation facility. Dry Gas Cleaning Plant shall be installed during next revamping of BF1 and BF2.	Being Complied. Top Recovery Turbine installation at BF3 shall be taken up during revamping. Blast Furnace 1 and Blast Furnace 2 are equipped with stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility. Dry Gas Cleaning Plant installation at BF1,2 shall be taken up during next revamping.

xiii.	AAQ at Mosque and Siddhartha Caves archaeological sites shall be monitored once in a month as per the CPCB norms.	Complied. Ambient air monitoring is being done once a month at Archeological sites i.e the Mosque and Siddhartha Caves at Tar Surla and the reports are submitted monthly to Goa State Pollution Control Board. <b>Annexure X: Archaeological sites monitoring reports</b>
xiv.	Parking area for trucks/dumpers shall be provided within the plant. No truck/dumper shall be parked outside the plant premises	Complied. Parking area for trucks/dumpers is provided inside the plant premises.
xv.	Project proponent shall conserve wetlands located in the vicinity of the project site (Amona – 0.3km in Northern direction and Navelim – 0.6 km in Northern direction) by developing green belt development all along the boundary of the wet land.	Complied.730nos of horticulture plantation done from June-September'25 in the vicinity of Wetland
xvi.	Water being used for cooling purposes in Waste Heat Recovery Power Plant (WHRPP) is the saline water drawn from Mandovi river (backwater). The blow down of cooling towers shall be discharged back to the saline backwaters as per the approval of the GSPCB. Project proponent shall periodically monitor the riverine water quality and report shall be submitted along with the sixmonthly compliance report to the concerned Regional Office of the MoEF&CC.	Complied. River water quality is monitored as per consent, and reports are submitted to GSPCB and CPCB. <b>Annexure XI: River water quality analysis report</b>
xvii.	Secondary emission generated during charging, tapping of metal, slag tapping may be controlled by providing canopy hoods at proper elevation connected to air pollution control device without interfering with the production process.	Complied. At coal charging Dust Extraction Systems (DES) have been provided and baghouses with hoods have been provided at tapping area of metal.
xviii	Additional Filter beds, arrester wall shall be provided along the storm water drainage for settlement of suspended particles and to prevent siltation.	Complied. Filter beds and arrester walls are provided in the storm drains and these storm drains are desilted every year before monsoon.
xix.	The recommendations contained in the storm water management plan shall be strictly adhered with. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.	Complied. The storm water management plan is prepared and implemented. Geo-blanketing of soil dump at project site is done as a part of the management plan. Desilting of all the settling ponds and drains is done every year before monsoons.
xx	CO sensors shall be installed in all units which generate CO gas.	Complied.CO gas sensors are installed at all units generating CO gas. There are in total 99nos of portable CO monitors and 120nos of online CO monitors.
xxi	In pursuance to the IA(CMD) communication dated 15.07.2024, the General Condition (v) on energy conservation measures, and General Condition (i) on waste management, as stipulated in EC dated 24.01.2022 shall be deemed dropped for future compliance	Noted.
<b>B. General conditions</b>		
<b>I</b>	<b>Statutory compliance:</b>	

i.	The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.	Noted
ii.	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted
<b>II</b>	<b>Air quality monitoring and preservation:</b>	
i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (Already being addressed through previous EC conditions.)	Complied. Continuous Emission Monitoring System (CEMS) at the process stacks and CAAQMS have been installed and are connected to Goa State Pollution Control Board (GSPCB) and Central Pollution Control Board (CPCB). Calibration of CEMS and CAAQMS is done as per schedule <b>Annexure XII: Calibration reports</b>
ii.	The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.(already being addressed through previous EC conditions.)	Complied.4nos of CAAQMS have been installed and data is continuously getting communicated to GSPCB and CPCB.
iii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Complied. We are monitoring fugitive emissions at our loading/unloading areas, raw material storage areas and internal roads quarterly through MOEFCC approved laboratory <b>Annexure XIII: Fugitive dust emission reports</b>

iv.	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.	Complied. All process stacks have been provided with sampling facilities.
v.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Complied. Baghouses, Electrostatic Precipitators (ESPs), Dust Extracting Systems (DESS), rain guns, fog cannons, windshields, road sweeping machines, water tankers, dry fog systems are present to control air pollution.
vi.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Complied. Differential pressure measurement is available across bags to detect leakage. Compressed Air puffing arrangement is available for mechanized cleaning.
vii.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Complied. For road cleaning, road sweeping machine is deployed. The shop floor and roofs are cleaned regularly
viii.	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.	Complied. All conveyors are closed types to avoid spillages and dust generation. Raw material carrying trucks are covered with tarpaulin during transportation.
ix.	Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/agglomeration.	Complied. All the iron ore fines, coal and coke fines, lime fines and such other fines are reused in the sinter plant to produce sinter.
x.	The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.	Complied. Baghouse systems with hoods are provided to all blast furnaces
xi.	Wind shelter fence and chemical spraying shall be provided on the raw material stockpiles.	Complied. Windshields have been provided at the boundary of the plant. Rain guns are provided in the raw material yard for sprinkling of water to prevent generation of dust.
xii.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.	Complied. Tunnels are not present at our plant. For motor houses and oil storage rooms, proper ventilation system has been provided.
xiii.	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.	Complied. Pollution control system in the plant is present as per CREP guidelines

xiv	The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Enough additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.	Complied. Wet scrubbers, baghouse systems, ESP's, EV vehicles are used for internal employee transportation. Fog cannon mist cannons, rain guns are available in raw material yards and dispatch area. Road spraying through tankers and Road sweeping machine with sprinklers is present and deployed for road cleaning and to arrest suspended dust in atmosphere.
xv	Bag filters shall be cleaned regularly, and efficiency of bag filter system shall be monitored at regular intervals.	Complied. Compressed Air puffing arrangements are available for mechanized cleaning. Differential pressure measurement is available across bags to detect leakage. Efficiency monitoring is conducted annually, and reports are submitted to GSPCB and CPCB.
xvi	Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.	Complied. Rain guns and fog cannons are available in raw material yards and dispatch areas. Road sweeping machines are available for control of fugitive dust emissions
xvii	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm <sup>3</sup> and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.	Complied. Adequate measures like Gas cleaning system, bag houses are available to maintain emissions from process stacks below 30mg/Nm <sup>3</sup> . Continuous Emission Monitoring System (CEMS) have been installed at the process stacks and are connected to Goa State Pollution Control Board (GSPCB) and Central Pollution Control Board (CPCB). Calibration of CEMS is done as per the schedule.
xviii	Following additional arrangements to control fugitive dust shall be provided: a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas. b. Proper covered vehicle shall be used while transport of materials. c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.	Complied. Fog cannons/mist sprinklers are available at raw material storage area. All raw material carrying vehicles are covered with tarpaulin. Wheel wash system is installed at the exit of raw material gate.
<b>III</b>	<b>Air Quality Monitoring And Preservation In Case Of Ferro Alloy Plants</b>	
i.	The 4th hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.	Complied. Furnace is closed with hydraulic operated doors & having 02 no's of extractions holes.
ii.	Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m <sup>3</sup> for total dust as per Indian Factories Act.	Complied. Personal and area exposure for silica quartz dust is done at plant

	Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.	
iii.	No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.	Noted and complied.
iv.	Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke-(Any further expansion in the coke oven batteries of capacities 0.3MTPA and 0.322MTPA shall not be undertaken until CDQ system is put in place. Further, it also suggested PP to prepare a techno-economically feasible plan for switching over to CDQ, and submit the same to concerned RO MoEFCC clearly indicating the timeline.)	<p>Not applicable.</p> <ul style="list-style-type: none"> <li>Existing two coke oven batteries were built up in the year 1994 and 2013 with capacity 3,22,000 Tons/annum and 3,00,000 tons/annum respectively. The said coke ovens are of non-recovery type coke ovens wherein other material like tar etc are not recovered. The coke ovens are of horizontal assembly of ovens which works with negative pressure.</li> <li>For installing dry quenching plant coke oven battery capacity alone should be at least 5,00,000Tons/annum or more in single row. In our case individual coke oven batteries capacity is far less than 5,00,000Tons/annum. This gives 2,50,000 Tons/annum which is insufficient feed for the dry quenching plant</li> <li>There are two technologies which are available for coke oven namely chemical recovery and waste heat recovery. In case of chemical recovery lots of emission issues persist hence dry quenching is feasible. However, for non recovery type of coke ovens are operated with negative pressure with mandatory waste heat recovery. In case of our existing non recovery type coke ovens the waste heat recovery is at the rate of 500 /tons of coke which is higher than others</li> <li>Dry quenching plant is more feasible in vertical coke ovens. In case of Horizontal coke batteries, the civil structure for quenching tunnel shall be built at particular height which is quite difficult as we have to dug deep below the ground level for this structure. As these existing coke oven batteries are 30 years and 10 years old respectively the space around these coke oven batteries are already occupied by different structures and currently no space available to install any plant around the coke ovens.</li> <li>There is existing wet quenching towers provided with grid arrestor and spray systems</li> </ul>
v.	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries(Chain conveyors, land based industrial vacuum cleaning facility). Land-based APC system shall be installed to control coke pushing emissions.	Complied. Wharf of coke is enclosed with parapet wall on two sides. Feed end is connected to settling pond whereas discharge end on conveyor feeding to screening plant. Coke from wharf is directly taken on conveyor lined with side skirting. Hoods lined with pyro-block modules are provided on hot coke car for control of emissions.

vi.	Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.	Not applicable. Our coke oven batteries are non-recovery type working under negative pressure, hence, there is no Coke Oven Flue Gas (COFG) leakages from coke oven process.
vii.	Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.	Not applicable as our coke oven batteries are non-recovery type
viii.	The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.	Complied. Sulphur content in blended coal is within limits
ix.	Online stack monitoring system for IF and RHF shall be installed, and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.	Not applicable as there is no IF and RHF
x.	Low NOx Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.	Not applicable as there is no reheating furnace at plant
<b>IV</b>	<b>Air Quality Monitoring And Preservation In Case Of Di Pipe</b>	
i.	Ductile Iron (DI) plant shall have the following provisions: a. Bag filter for Zn coating and Mg converter area. b. Wet scrubbers in paint and bitumen coating area. c. Bag Filter in Cement lining area. d. PTFE dipped bags shall be used in the plant. e. PM emissions from BF in Zinc coating area shall be 5 mg/Nm <sup>3</sup> . f. ETP with recycling facility shall be included, if applicable.	Noted. Currently Not applicable as DI is in construction phase
<b>V</b>	<b>Air Quality Monitoring And Preservation In Case Of Bof</b>	
i.	Basic Oxygen Furnace (BOF) gas shall be cleaned dry	Not applicable as there is no Basic Oxygen Furnace
<b>VI</b>	<b>Water quality monitoring and preservation</b>	

i	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate this system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Complied. Continuous Effluent Monitoring Systems are present at our plant and are connected to GSPCB and CPCB. Calibration of CEMS is done as per schedule from labs recognized under Environment (Protection) Act, 1986
ii.	The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at enough piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Complied. Ground water quality is monitored twice a year, Pré-monsoon, and post-monsoon. Ground water quality monitoring was done in the surrounding villages i.e. Amona, Navelim and Maina in the month of May'25(premonsoon) and October'2025 as a part of post monsoon ground water study. <b>Annexure XIV: Pre and Post monsoon ground water quality analysis</b>
iii.	Garland drains and collection pits shall be provided for each stockpile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	Complied. Garland drains and catch ponds have been made along the stock piles to arrest the run-off in the event of heavy rains and water pollution during rainy season
iv.	Water meters shall be provided at the inlet to all unit processes in the steel plants.	Complied. Water meters are installed at the inlet of all the unit processes.
v.	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.	Complied. Process water is recycled and reused. Rain water harvesting is practiced and water is used for process also treated water from STP's is reused for cooling/quenching purpose. No process water is discharged except for blowdown water used for cooling purpose at Waste heat recovery powerplant as per consent authorization.
vi.	The proposed project shall be designed as Zero Liquid Discharge Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body	Complied. No process water is discharged except for blowdown water used for cooling purposes of non-contact type condenser at Waste heat recovery powerplant. Sewage treatment plants are present for sewage water treatment also soak pits & septic tanks are present which are cleared regularly through night soil tankers.

vii.	All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the runoff material and shall be implemented as per the action plan submitted in EIA/EMP report.	Complied. Rain guns, fog cannons, are available in yard for dust suppression, Garland drains are made along the stock piles and connected to settling ponds to trap the runoff.
viii.	Rainwater harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.	Rainwater harvesting is implemented, and water is used for process. In the FY 25-26 192239m <sup>3</sup> qty was harvested and reused from April-Oct'25
<b>VII</b>	<b>Water Quality Monitoring And Preservation In Case Of Rolling Mills</b>	
i.	The project proponent shall provide the ETP for effluents of rolling mills, if applicable, to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to Coke oven plants) as amended from time to time.	Not applicable. Our coke oven batteries are non-recovery type coke ovens where entire water used for coke quenching is recycled back to process after passing through settling ponds
ii.	Treated water from ETP of COBP shall not be used for coke quenching, if applicable.	Not applicable as there are no rolling mills
<b>VIII</b>	<b>Noise monitoring and prevention</b>	
i.	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Complied. Noise monitoring is done quarterly, and report is submitted to GSPCB and CPCB.
ii.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during daytime and 70 dB(A) during night time.	Complied. Noise monitoring is conducted quarterly, and report is submitted to GSPCB and CPCB. <b>Annexure XV: Noise monitoring reports</b>
<b>IX</b>	<b>Energy Conservation measures:</b>	
i.	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.	Not applicable. In current operations, metal is getting covered with insulation compound and hot metal is not transferred to longer distances, and it is poured into the pig casting machine. Hence, torpedo ladle is not required
ii.	Restrict Gas flaring to < 1%.	Complied. Gas flaring restricted to <1% shall be implemented, except during Blast Furnace breakdown the flaring can exceed along with Power plant shutdown. Flaring data is also tracked on daily basis so that any issue arising will be tracked and rectified immediately.

iii.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, streetlights, parking around project area and maintain the same regularly;	Complied. Solar power generation system of 100 KW is installed on roof top of admin building also the power utilized for plant operations is generated through Waste Heat Recovery Powerplants. <b>Annexure XVI: Solar power installation</b>
iv.	Provide LED lights in their offices and residential areas.	Complied. LED lights are provided
<b>X</b>	<b>Energy Conservation Measures In Case Of Reheating Furnace</b>	
i.	The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.	Not applicable as there is no reheating furnace
ii.	Practice hot charging of slabs and billets/blooms as far as possible.	Not applicable as there is no reheating furnace
iii.	Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and nonrecovery type coke ovens.	<p>Not applicable.</p> <ul style="list-style-type: none"> <li>• Existing two coke oven batteries were built up in the year 1994 and 2013 with capacity 3,22,000 Tons/annum and 3,00,000 tons/annum respectively. The said coke ovens are of non-recovery type coke ovens wherein other material like tar etc are not recovered. The coke ovens are of horizontal assembly of ovens which works with negative pressure.</li> <li>• For installing dry quenching plant coke oven battery capacity alone should be at least 5,00,000Tons/annum or more in single row. In our case individual coke oven batteries capacity is far less than 5,00,000Tons/annum. This gives 2,50,000 Tons/annum which is insufficient feed for the dry quenching plant</li> <li>• There are two technologies which are available for coke oven namely chemical recovery and waste heat recovery. In case of chemical recovery lots of emission issues persist hence dry quenching is feasible. However, for non recovery type of coke ovens are operated with negative pressure with mandatory waste heat recovery. In case of our existing non recovery type coke ovens the waste heat recovery is at the rate of 500 /tons of coke which is higher than others</li> <li>• Dry quenching plant is more feasible in vertical coke ovens. In case of Horizontal coke batteries, the civil structure for quenching tunnel shall be built at particular height which is quite difficult as we have to dug deep below the ground level for this structure. As these existing coke oven batteries are 30 years and 10 years old respectively the space around these coke oven batteries are already occupied by different structures and currently no space available to install any plant around the coke ovens.</li> <li>• There is existing wet quenching towers provided with grid arrestor and spray` systems</li> </ul>

XI	Waste management	
i.	Kitchen waste shall be composted or converted to biogas for further use.	Complied. Kitchen waste is treated in a composting unit and is recycled for further use
ii.	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.	Not applicable as there is no fly ash generation
iii.	<p>The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <a href="https://cpcb.nic.in/technical-guidelines-3/">https://cpcb.nic.in/technical-guidelines- 3/</a>.</p> <p>a. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six-monthly compliance report being submitted by the project proponents</p>	<p>Complied.</p> <p><b>Annexure XVII: Snapshots of SUP free awareness sessions</b></p>
iv.	A proper action plan must be implemented to dispose of the electronic waste generated in the industry.	Complied. All e-waste is disposed of through authorized vendors within the timeline as per E waste rules.
v.	<p>Solid waste utilization: a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making. b. PP shall recycle/reuse solid waste generated in the plant as far as possible. c. Used refractories shall be recycled as far as possible.</p>	Complied. Crusher is not installed as Slag generated is directly sold to cement plant. All solid waste generated is recycled and reused except for bio medical waste and hazardous waste like paint tins, oil filters, oil-soaked cotton waste and resins which is disposed as per consent. Used refractories are utilized for road making.
XII	Waste Management In Case Of Sinter Plant	

SM S i.	slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.	Not applicable. No SMS slag generated at plant, metallic scrap generated is sold and flux and all other generated dust from dedusting systems is reused in sinter production
ii.	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.	Not applicable as Dust generated in GCP is recycled. The same is used as raw material in sinter production
iii.	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.	Not applicable as Scrap is sold to authorized vendors, flux waste is reused in sinter plant production.
iv.	In case of non-recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.	Complied. Gas line carrying hot flue gases to the boiler is insulated
v.	Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).	Not applicable as our coke oven batteries are non-recovery type
<b>XIII</b>	<b>Green Belt</b>	
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.	Complied. GHG emissions inventory is prepared for the plant. As a part of GHG reduction program we have commissioned waste heat recovery project for coke drying, installation of free EV charging station at Navelim for employees & community, Biodiesel usage for heating ovens, Reduction in total carbon bearing material in blast furnaces through process optimization and oxygen enrichment, 100KW solar panel installation at admin block and installation of solar setup in 3 school and 1 Anganwadi, Energy audit at plant and annual plantation program at plant and in surrounding villages. Introduced EV wheel loader at operation site and EV LMV for employee transportation.

ii.	Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.	Complied. Decarbonization plan has been prepared and is being monitored periodically for implementation. As a part of the plan Waste heat recovery from sinter cooler for coke drying is completed <b>Annexure XVIII: Decarbonization plan</b>
iii.	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.	Complied.33.5% of total land is developed as green belt area.
iv.	The PP shall provide additional green belt within the premises of the schools, in consultation with school authorities, within a radius of 1 K.M. from the Plant.	Complied. For FY 25-26 plantation was done Government high school Amona.
<b>XIV</b>	<b>Public Hearing And Human Health Issues</b>	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Complied. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan is implemented
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.	Complied. Heat Stress study is part of our hygiene study which is conducted periodically

iii.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Not applicable as there is no housing facility for labours within the plant premises.
iv.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Complied. Occupational health surveillance is done annually and records are maintained.
<b>XV</b>	<b>Environment Management</b>	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.	Complied. The baseline survey of the areas surrounding the plant was carried out and accordingly the CER activities are planned in the village.
ii.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Complied. The company has a Health, Safety and Environment policy in place. We are ISO14000:2015 certified (Environment Management System). Also, there is a system in place for tracking and reporting of all the statutory compliances
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	Complied. Separate Environment cell exists both at project as well as head quarter. Separate budget is allocated towards environmental measures at site

iv.	Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.	Complied. Efficiency monitoring is conducted annually, and reports are submitted to GSPCB and CPCB. <b>Annexure XIX: Efficiency monitoring reports</b>
<b>XVI</b>	<b>Miscellaneous</b>	
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	<b>Complied.</b> Advertisement regarding grant of EC has been published on two local newspapers The Goan every day and Goan Varta: Environmental Clearance has also been displayed on company's website <a href="https://sesagoaironore.com/">https://sesagoaironore.com/</a> under Sustainability section <b>Annexure XX: EC advertisement in newspapers</b>
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied <b>Annexure XXI: Copies submitted to local bodies</b>
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Complied. Six-monthly EC Compliance status report is submitted to MoEF&CC, CPCB & GSPCB. The same is uploaded on company's website <a href="https://sesagoaironore.com/">https://sesagoaironore.com/</a> under Sustainability section.
iv.	The project proponent shall monitor the criteria pollutants level namely, PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Complied. Ambient air monitoring and stack emission monitoring is monitored at the plant site and the results are being displayed on the digital display boards installed at our gates. Reports are uploaded on the company website.
v.	Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented	Complied. All internal and connecting roads are blacktopped in terms of MSA as per IRC guidelines.
vi.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Complied. Status of the compliance of the stipulated environmental conditions is submitted on the website of the Ministry of Environment, Forest and Climate Change.
vii.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as	Complied. Yearly Environmental Statement in Form-V is submitted to the Goa State Pollution Control Board as prescribed under the Environmental (Protection) Rules,

	prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company	1986 and is uploaded on company's website <a href="https://sesagoaironore.com/">https://sesagoaironore.com/</a> under Sustainability section
viii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Noted and compliance ensured
ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Noted and compliance ensured
x.	The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.	Complied. Approved wildlife management plan for 5 years received from the State Forest Department, Govt. of Goa, the implementation of the same is in progress. Communications from the Goa Forest department are attached in annexure. As a part of the plan total 67.7lakhs is given to forest department which includes 25 nos. of trap cameras, Sponsorships towards Bird Festival and Wildlife Week celebration, financial support for establishing water holes in wildlife buffer area and Rescue van along with rescue cage was handed over to forest department.
xi.	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left-over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.	Complied. The details of the community development activities are available on the company website <a href="#">Environment Reports   Sesa goa iron ore</a>
xii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Noted and compliance assured.
xiii.	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
xiv.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.

xv.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted.
xvi.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Noted.Full co-operation will be extended
xvii.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.



**Annexure I**  
**Photographs of plantation.**

PLANTATION PHOTOS



## PLANTATION PHOTOS



PLANTATION PHOTOS



# PLANTATION PHOTOS



**Annexure II**  
**AAQM Village Monitoring Reports**



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1089,1104,1126,1144, 1159, 1174, 1192, 1210,1227	Test Report Date	03/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDITION BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	OCTOBER – 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Navelim Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27 °C
Average Relative Humidity [%]	89 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1089	03/10/2025	43.41	21.88	< 20	14.44	< 20	0.96	0.03	<1.0	<0.4	3.10	< 20	< 0.5
2	GA/VEN/25/1104	06/10/2025	45.56	22.46	< 20	15.11	< 20	0.95	0.02	<1.0	<0.4	0.75	< 20	< 0.5
3	GA/VEN/25/1126	09/10/2025	42.22	20.34	< 20	14.84	< 20	0.81	0.10	<1.0	<0.4	5.11	< 20	< 0.5
4	GA/VEN/25/1144	13/10/2025	44.26	22.06	< 20	14.71	< 20	0.80	0.07	<1.0	<0.4	0.62	< 20	< 0.5
5	GA/VEN/25/1159	16/10/2025	47.67	23.65	< 20	14.31	< 20	0.88	0.06	<1.0	<0.4	4.20	< 20	< 0.5
6	GA/VEN/25/1174	21/10/2025	46.25	24.19	< 20	14.04	< 20	0.91	0.03	<1.0	<0.4	4.35	< 20	< 0.5
7	GA/VEN/25/1192	23/10/2025	36.28	17.39	< 20	13.64	< 20	0.93	0.06	<1.0	<0.4	5.48	< 20	< 0.5
8	GA/VEN/25/1210	27/10/2025	39.60	19.67	< 20	13.48	< 20	0.91	0.08	<1.0	<0.4	1.87	< 20	< 0.5
9	GA/VEN/25/1227	30/10/2025	40.36	20.14	< 20	13.64	< 20	0.90	0.05	<1.0	<0.4	0.62	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* Hourly Value

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

Note :

1. The results relate only to the samples tested
2. Test report shall not be reproduced except in full, without written approval of the laboratory.
3. Samples will be preserved for a period 15 days from the delivery of Test Report.
4. Test Results relate only to the conditions prevailing at the time of sampling
5. Customer complaint register is available at laboratory.
6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.
7. Test methods of analyzed parameters are back side of analysis report.

CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII):2004
Arsenic (As)	IS 5182 (Part XXII):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2831-DTB-2020	02/02/2025	01/02/2026
2	Fine Particulate Sampler - Sr. No. 1341-G-23	12/09/2025	11/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	04/08/2025	03/11/2025
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



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Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	OCTOBER– 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Amona Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27 °C
Average Relative Humidity [%]	89 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1085	03/10/2025	42.36	21.67	< 20	14.31	< 20	1.01	0.03	<1.0	<0.4	5.23	< 20	< 0.5
2	GA/VEN/25/1101	06/10/2025	43.86	20.17	< 20	14.84	< 20	1.02	0.02	<1.0	<0.4	3.87	< 20	< 0.5
3	GA/VEN/25/1122	09/10/2025	40.54	19.65	< 20	15.11	< 20	0.85	0.04	<1.0	<0.4	3.50	< 20	< 0.5
4	GA/VEN/25/1141	13/10/2025	42.19	20.75	< 20	14.44	< 20	0.85	0.05	<1.0	<0.4	0.37	< 20	< 0.5
5	GA/VEN/25/1155	16/10/2025	45.19	22.68	< 20	14.04	< 20	0.77	0.06	<1.0	<0.4	7.70	< 20	< 0.5
6	GA/VEN/25/1171	21/10/2025	41.92	23.12	< 20	13.64	< 20	0.80	0.03	<1.0	<0.4	1.49	< 20	< 0.5
7	GA/VEN/25/1188	23/10/2025	38.55	18.66	< 20	13.37	< 20	0.86	0.03	<1.0	<0.4	3.86	< 20	< 0.5
8	GA/VEN/25/1207	27/10/2025	40.39	19.15	< 20	13.24	< 20	0.87	0.06	<1.0	<0.4	0.62	< 20	< 0.5
9	GA/VEN/25/1223	30/10/2025	37.27	18.33	< 20	13.37	< 20	0.93	0.04	<1.0	<0.4	3.61	< 20	< 0.5
NAAQS Limits*			100	60	80	80	< 20	2	< 20	5	6	<1.0	<0.4	1
Units			µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	mg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	ng/ m <sup>3</sup>	ng/ m <sup>3</sup>	µg/ m <sup>3</sup>	ng/ m <sup>3</sup>

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\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

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End

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[JAGANNATH S. PARAB]

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6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.
7. Test methods of analyzed parameters are back side of analysis report.

  
CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2823-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	04/08/2025	03/11/2025
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1090,1105,1127,1145, 1160, 1175, 1193, 1211,1228	Test Report Date	03/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDITION BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	OCTOBER – 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Maina Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27 °C
Average Relative Humidity [%]	89 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1090	03/10/2025	44.86	22.49	< 20	14.57	< 20	0.83	0.03	<1.0	<0.4	2.86	< 20	< 0.5
2	GA/VEN/25/1105	06/10/2025	46.50	21.25	< 20	14.31	< 20	0.85	0.02	<1.0	<0.4	2.24	< 20	< 0.5
3	GA/VEN/25/1127	09/10/2025	45.38	22.04	< 20	13.77	< 20	0.86	0.04	<1.0	<0.4	3.48	< 20	< 0.5
4	GA/VEN/25/1145	13/10/2025	43.37	21.72	< 20	13.64	< 20	0.78	< 0.01	<1.0	<0.4	3.22	< 20	< 0.5
5	GA/VEN/25/1160	16/10/2025	42.69	22.84	< 20	14.17	< 20	0.87	0.06	<1.0	<0.4	5.97	< 20	< 0.5
6	GA/VEN/25/1175	21/10/2025	44.37	22.89	< 20	13.91	< 20	1.07	0.03	<1.0	<0.4	6.56	< 20	< 0.5
7	GA/VEN/25/1193	23/10/2025	40.54	18.33	< 20	13.51	< 20	1.02	0.05	<1.0	<0.4	3.85	< 20	< 0.5
8	GA/VEN/25/1211	27/10/2025	43.22	22.12	< 20	13.10	< 20	0.99	0.08	<1.0	<0.4	4.11	< 20	< 0.5
9	GA/VEN/25/1228	30/10/2025	38.69	18.45	< 20	13.24	< 20	0.97	0.03	<1.0	<0.4	1.37	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* Hourly Value

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII):2004
Arsenic (As)	IS 5182 (Part XXII):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2822-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1359-J-23	18/12/2024	17/12/2025
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	04/08/2025	03/11/2025
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1242,1264,1283,1308,1331,1346,1361,1379	Test Report Date	01/12/2025
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	November – 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Navelim Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	28 °C
Average Relative Humidity [%]	73 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO <sup>***</sup>	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> <sup>***</sup>	B(a)P
1	GA/VEN/25/1242	03/11/2025	44.63	26.88	12.96	14.57	< 20	0.92	< 0.01	<1.0	<0.4	4.48	< 20	< 0.5
2	GA/VEN/25/1264	06/11/2025	42.42	25.09	11.11	13.37	< 20	0.87	0.07	<1.0	<0.4	4.23	< 20	< 0.5
3	GA/VEN/25/1283	10/11/2025	47.29	26.12	11.65	13.10	< 20	0.85	0.05	<1.0	<0.4	4.95	< 20	< 0.5
4	GA/VEN/25/1308	13/11/2025	44.12	26.27	11.55	12.84	< 20	0.90	0.03	<1.0	<0.4	4.98	< 20	< 0.5
5	GA/VEN/25/1331	17/11/2025	49.61	26.71	11.44	12.57	< 20	0.83	0.04	<1.0	<0.4	3.11	< 20	< 0.5
6	GA/VEN/25/1346	20/11/2025	48.60	25.62	11.22	12.97	< 20	0.81	0.02	<1.0	<0.4	0.62	< 20	< 0.5
7	GA/VEN/25/1361	24/11/2025	50.41	30.19	11.33	13.37	< 20	0.80	< 0.01	<1.0	<0.4	0.63	< 20	< 0.5
8	GA/VEN/25/1379	27/11/2025	54.61	32.09	11.44	13.77	< 20	0.81	0.03	<1.0	<0.4	3.23	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* Hourly Value

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII):2004
Arsenic (As)	IS 5182 (Part XXII):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sampler - Sr. No. 2823-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1239,1260,1280,1304,1328,1342,1358,1375	Test Report Date	01/12/2025
Customer Name and Address	<b>M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.</b>		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	November– 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Amona Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29 °C
Average Relative Humidity [%]	73 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1239	03/11/2025	42.72	25.31	12.42	13.77	< 20	0.99	0.04	<1.0	<0.4	4.36	< 20	< 0.5
2	GA/VEN/25/1260	06/11/2025	45.21	27.15	11.22	13.10	< 20	0.81	0.02	<1.0	<0.4	3.23	< 20	< 0.5
3	GA/VEN/25/1280	10/11/2025	50.57	28.46	11.44	13.51	< 20	0.83	0.07	<1.0	<0.4	0.87	< 20	< 0.5
4	GA/VEN/25/1304	13/11/2025	47.24	28.51	11.87	13.24	< 20	0.93	0.03	<1.0	<0.4	5.75	< 20	< 0.5
5	GA/VEN/25/1328	17/11/2025	54.24	32.55	12.09	13.37	< 20	0.81	0.04	<1.0	<0.4	3.86	< 20	< 0.5
6	GA/VEN/25/1342	20/11/2025	52.52	31.27	11.87	13.64	< 20	0.85	0.06	<1.0	<0.4	4.36	< 20	< 0.5
7	GA/VEN/25/1358	24/11/2025	49.52	28.67	12.20	13.19	< 20	0.83	0.04	<1.0	<0.4	0.37	< 20	< 0.5
8	GA/VEN/25/1375	27/11/2025	52.19	31.89	12.42	13.24	< 20	0.82	0.04	<1.0	<0.4	3.24	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* Hourly Value

End

For GADARKLAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[JAGANNATH S. PARAB]**

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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII):2004
Arsenic (As)	IS 5182 (Part XXII):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sampler - Sr. No. 2823-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1243,1265,1284,1309,1332,1347,1362,1380,	Test Report Date	01/12/2025
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	November– 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Maina Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	28 °C
Average Relative Humidity [%]	73 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1243	03/11/2025	40.27	24.33	12.20	13.64	< 20	0.96	0.01	<1.0	<0.4	5.22	< 20	< 0.5
2	GA/VEN/25/1265	06/11/2025	46.18	28.63	10.89	12.97	< 20	0.78	0.05	<1.0	<0.4	3.49	< 20	< 0.5
3	GA/VEN/25/1284	10/11/2025	43.76	24.33	11.11	13.64	< 20	0.80	0.04	<1.0	<0.4	6.09	< 20	< 0.5
4	GA/VEN/25/1309	13/11/2025	42.25	25.64	11.22	13.37	< 20	0.97	0.02	<1.0	<0.4	4.35	< 20	< 0.5
5	GA/VEN/25/1332	17/11/2025	44.70	24.32	11.33	13.10	< 20	0.91	0.04	<1.0	<0.4	3.73	< 20	< 0.5
6	GA/VEN/25/1347	20/11/2025	45.89	24.68	11.11	13.37	< 20	0.87	0.02	<1.0	<0.4	4.98	< 20	< 0.5
7	GA/VEN/25/1362	24/11/2025	47.66	26.67	11.44	13.77	< 20	0.82	0.01	<1.0	<0.4	3.23	< 20	< 0.5
8	GA/VEN/25/1380	28/11/2025	50.31	28.45	11.65	13.51	< 20	0.80	0.02	<1.0	<0.4	2.74	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

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\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* Hourly Value

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2823-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1397,1412,1427,1444,1461,1478,1495,1515,1532	Test Report Date	02.01.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	December – 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Navelim Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.9 °C
Average Relative Humidity [%]	56.3%

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1397	01.12.2025	51.63	25.69	11.89	14.31	< 20	0.82	0.07	<1.0	<0.4	4.23	< 20	< 0.5
2	GA/VEN/25/1412	04.12.2025	52.23	25.27	12.44	15.64	< 20	0.82	0.02	<1.0	<0.4	1.00	< 20	< 0.5
3	GA/VEN/25/1427	08.12.2025	48.89	23.16	12.22	14.31	< 20	0.80	0.05	<1.0	<0.4	0.62	< 20	< 0.5
4	GA/VEN/25/1444	11.12.2025	51.54	25.14	12.55	14.84	< 20	0.78	0.05	<1.0	<0.4	0.62	< 20	< 0.5
5	GA/VEN/25/1461	15.12.2025	52.73	26.88	12.22	15.24	< 20	0.82	0.04	<1.0	<0.4	0.87	< 20	< 0.5
6	GA/VEN/25/1478	18.12.2025	50.86	25.32	12.55	14.31	< 20	0.85	0.04	<1.0	<0.4	4.10	< 20	< 0.5
7	GA/VEN/25/1495	22.12.2025	49.51	24.02	13.10	14.71	< 20	0.83	0.04	<1.0	<0.4	4.10	< 20	< 0.5
8	GA/VEN/25/1515	25.12.2025	51.79	26.35	12.33	15.20	< 20	0.82	0.04	<1.0	<0.4	2.37	< 20	< 0.5
9	GA/VEN/25/1532	29.12.2025	52.65	26.03	12.66	15.08	< 20	0.86	0.07	<1.0	<0.4	1.24	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	mg/ m <sup>3</sup>	µg/ m <sup>3</sup>	µg/ m <sup>3</sup>	ng/ m <sup>3</sup>	ng/ m <sup>3</sup>	µg/ m <sup>3</sup>	ng/ m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value


End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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7. Test methods of analyzed parameters are back side of analysis report.

  
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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 ( Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2831-DTB-2020	02/02/2025	01/02/2026
2	Fine Particulate Sampler - Sr. No. 1341-G-23	12/09/2025	11/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1394,1260,1280,1304,1328,1342,1492,1511,1529	Test Report Date	02.01.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	December– 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Amona Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.6 °C
Average Relative Humidity [%]	56.5%

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/25/1394	01.12.2025	50.32	24.12	12.00	15.24	< 20	0.83	0.06	<1.0	<0.4	1.62	< 20	< 0.5
2	GA/VEN/25/1260	04.12.2025	49.42	22.17	12.33	16.18	< 20	0.85	0.04	<1.0	<0.4	4.37	< 20	< 0.5
3	GA/VEN/25/1280	08.12.2025	52.46	25.35	12.55	14.84	< 20	0.81	0.08	<1.0	<0.4	0.37	< 20	< 0.5
4	GA/VEN/25/1304	11.12.2025	54.63	27.08	12.88	15.24	< 20	0.83	0.01	<1.0	<0.4	0.37	< 20	< 0.5
5	GA/VEN/25/1328	15.12.2025	50.20	25.16	12.33	15.64	< 20	0.85	0.04	<1.0	<0.4	0.50	< 20	< 0.5
6	GA/VEN/25/1342	18.12.2025	54.22	26.91	12.66	14.98	< 20	0.86	0.03	<1.0	<0.4	3.86	< 20	< 0.5
7	GA/VEN/25/1492	22.12.2025	51.72	24.38	12.88	15.24	< 20	0.86	0.03	<1.0	<0.4	3.86	< 20	< 0.5
8	GA/VEN/25/1511	25.12.2025	53.72	26.25	12.44	15.55	< 20	0.81	0.03	<1.0	<0.4	2.74	< 20	< 0.5
9	GA/VEN/25/1529	29.12.2025	49.66	24.47	12.77	15.20	< 20	0.85	0.09	<1.0	<0.4	0.62	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2823-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1398,1413,1428,1445,1462,1479,1496,1516,1533	Test Report Date	02.01.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	December– 2025		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Maina Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.6 °C
Average Relative Humidity [%]	56.8%

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters												
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO <sup>***</sup>	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> <sup>***</sup>	B(a)P	
1	GA/VEN/25/1398	01.12.2025	53.16	26.04	12.99	15.11	< 20	0.86	0.05	<1.0	<0.4	2.74	< 20	< 0.5	
2	GA/VEN/25/1413	04.12.2025	54.36	26.25	12.55	15.78	< 20	0.81	0.04	<1.0	<0.4	5.98	< 20	< 0.5	
3	GA/VEN/25/1428	08.12.2025	50.79	24.04	12.99	14.98	< 20	0.77	0.07	<1.0	<0.4	3.24	< 20	< 0.5	
4	GA/VEN/25/1445	11.12.2025	53.53	26.44	12.66	15.38	< 20	0.81	0.06	<1.0	<0.4	3.23	< 20	< 0.5	
5	GA/VEN/25/1462	15.12.2025	51.71	25.51	13.10	14.84	< 20	0.80	0.01	<1.0	<0.4	1.00	< 20	< 0.5	
6	GA/VEN/25/1479	18.12.2025	52.72	27.54	13.65	15.38	< 20	0.82	0.04	<1.0	<0.4	4.84	< 20	< 0.5	
7	GA/VEN/25/1496	22.12.2025	50.67	24.74	13.98	15.11	< 20	0.81	0.05	<1.0	<0.4	4.83	< 20	< 0.5	
8	GA/VEN/25/1516	25.12.2025	48.41	23.61	13.76	16.03	< 20	0.83	0.04	<1.0	<0.4	2.61	< 20	< 0.5	
9	GA/VEN/25/1533	29.12.2025	51.81	26.48	13.65	16.27	< 20	0.81	0.07	<1.0	<0.4	0.75	< 20	< 0.5	
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1	
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

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\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2822-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1359-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0008,0023,0038,0058,0078,0093,0108,0128,0145	Test Report Date	02.02.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	January - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Navelim Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30.0 °C
Average Relative Humidity [%]	59.6 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO <sup>***</sup>	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> <sup>***</sup>	B(a)P
1	GA/VEN/26/0008	01.01.2026	48.30	25.17	12.99	15.55	< 20	0.85	0.04	<1.0	<0.4	2.85	< 20	< 0.5
2	GA/VEN/26/0023	05.01.2026	50.79	25.89	13.21	15.79	< 20	0.85	0.01	<1.0	<0.4	2.36	< 20	< 0.5
3	GA/VEN/26/0038	08.01.2026	48.41	25.14	13.32	14.72	< 20	0.88	0.04	<1.0	<0.4	4.09	< 20	< 0.5
4	GA/VEN/26/0058	12.01.2026	51.65	26.24	13.76	14.84	< 20	0.87	0.04	<1.0	<0.4	0.87	< 20	< 0.5
5	GA/VEN/26/0078	15.01.2026	52.09	26.13	13.10	15.08	< 20	0.87	0.04	<1.0	<0.4	2.73	< 20	< 0.5
6	GA/VEN/26/0093	19.01.2026	49.36	25.24	12.88	15.55	< 20	0.83	0.04	<1.0	<0.4	2.11	< 20	< 0.5
7	GA/VEN/26/0108	22.01.2026	52.80	26.77	13.10	15.67	< 20	0.87	0.02	<1.0	<0.4	3.23	< 20	< 0.5
8	GA/VEN/26/0126	26.01.2026	47.46	24.37	13.21	14.84	< 20	0.80	0.03	<1.0	<0.4	1.25	< 20	< 0.5
9	GA/VEN/26/0145	29.01.2026	50.56	25.64	12.99	15.43	< 20	0.85	0.04	<1.0	<0.4	1.12	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

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\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Test methods of analyzed parameters

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PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2831-DTB-2020	02/02/2025	01/02/2026
2	Fine Particulate Sampler - Sr. No. 1341-G-23	12/09/2025	11/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0004,0020,0034,0055,0074,0090,0104,0123,0141	Test Report Date	02.02.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	January - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Amona Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29.6 °C
Average Relative Humidity [%]	58.9%

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO <sup>***</sup>	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> <sup>***</sup>	B(a)P
1	GA/VEN/26/0004	01.01.2026	54.41	26.17	13.54	15.43	< 20	0.87	0.02	<1.0	<0.4	3.86	< 20	< 0.5
2	GA/VEN/26/0020	05.01.2026	52.48	26.06	13.10	14.84	< 20	0.87	0.05	<1.0	<0.4	2.74	< 20	< 0.5
3	GA/VEN/26/0034	08.01.2026	51.48	25.81	13.21	14.96	< 20	0.86	0.03	<1.0	<0.4	3.86	< 20	< 0.5
4	GA/VEN/26/0055	12.01.2026	53.16	26.44	13.54	15.43	< 20	0.95	0.04	<1.0	<0.4	0.62	< 20	< 0.5
5	GA/VEN/26/0074	15.01.2026	49.69	25.16	12.99	15.20	< 20	0.91	0.04	<1.0	<0.4	3.74	< 20	< 0.5
6	GA/VEN/26/0090	19.01.2026	52.31	26.04	13.10	15.67	< 20	0.81	0.06	<1.0	<0.4	2.86	< 20	< 0.5
7	GA/VEN/26/0104	22.01.2026	50.33	26.17	12.77	15.43	< 20	0.82	0.03	<1.0	<0.4	2.12	< 20	< 0.5
8	GA/VEN/26/0123	26.01.2026	48.38	25.08	13.10	14.96	< 20	0.81	0.03	<1.0	<0.4	1.12	< 20	< 0.5
9	GA/VEN/26/0141	29.01.2026	53.61	26.54	13.21	14.96	< 20	0.87	0.03	<1.0	<0.4	1.00	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

Note :

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7. Test methods of analyzed parameters are back side of analysis report.

CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2823-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0009,0024,0039,0059,0079,0094,0109,0127,0149	Test Report Date	02.02.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	January - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Maina Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29.6 °C
Average Relative Humidity [%]	59.7 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/26/0009	01.01.2026	52.06	26.22	13.32	15.91	< 20	0.82	0.04	<1.0	<0.4	4.86	< 20	< 0.5
2	GA/VEN/26/0024	05.01.2026	47.59	25.16	13.87	15.32	< 20	0.81	0.03	<1.0	<0.4	2.62	< 20	< 0.5
3	GA/VEN/26/0039	08.01.2026	45.95	24.53	14.09	15.79	< 20	0.96	0.05	<1.0	<0.4	4.86	< 20	< 0.5
4	GA/VEN/26/0059	12.01.2026	48.25	24.04	13.98	16.86	< 20	0.85	0.04	<1.0	<0.4	1.37	< 20	< 0.5
5	GA/VEN/26/0079	15.01.2026	50.70	25.89	14.09	16.74	< 20	0.86	0.05	<1.0	<0.4	5.36	< 20	< 0.5
6	GA/VEN/26/0094	19.01.2026	54.21	26.77	14.42	16.86	< 20	0.85	0.04	<1.0	<0.4	1.25	< 20	< 0.5
7	GA/VEN/26/0109	22.01.2026	53.37	27.61	13.87	15.79	< 20	0.86	0.03	<1.0	<0.4	2.12	< 20	< 0.5
8	GA/VEN/26/0127	26.01.2026	49.42	25.61	14.09	15.55	< 20	0.83	0.03	<1.0	<0.4	1.74	< 20	< 0.5
9	GA/VEN/26/0149	29.01.2026	52.14	27.12	13.87	16.38	< 20	0.82	0.05	<1.0	<0.4	1.49	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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7. Test methods of analyzed parameters are back side of analysis report.

CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2822-DTB-2020	01/02/2025	31/01/2026
2	Fine Particulate Sampler - Sr. No. 1359-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0160,0175,0194,0219,0234,0252,0267,0291	Test Report Date	02.03.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	February - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Navelim Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	28 °C
Average Relative Humidity [%]	67.6 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/26/0160	02.02.2026	53.41	27.34	12.86	15.79	< 20	0.86	0.06	<1.0	<0.4	4.73	< 20	< 0.5
2	GA/VEN/26/0175	05.02.2026	52.54	25.88	12.65	15.91	< 20	0.83	0.03	<1.0	<0.4	4.08	< 20	< 0.5
3	GA/VEN/26/0194	09.02.2026	54.22	26.74	13.08	16.27	< 20	0.86	0.03	<1.0	<0.4	2.36	< 20	< 0.5
4	GA/VEN/26/0219	12.02.2026	55.39	25.65	13.30	15.96	< 20	0.87	0.05	<1.0	<0.4	2.36	< 20	< 0.5
5	GA/VEN/26/0234	16.02.2026	56.43	26.32	13.08	16.57	< 20	0.90	0.05	<1.0	<0.4	2.11	< 20	< 0.5
6	GA/VEN/26/0252	19.02.2026	51.45	25.42	13.85	16.94	< 20	0.87	0.04	<1.0	<0.4	2.37	< 20	< 0.5
7	GA/VEN/26/0267	23.02.2026	49.70	27.51	14.28	17.18	< 20	0.86	0.06	<1.0	<0.4	3.61	< 20	< 0.5
8	GA/VEN/26/0291	26.02.2026	52.18	26.22	14.50	16.08	< 20	0.88	0.14	<1.0	<0.4	8.21	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]  
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CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 ( Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2831-DTB-2020	06/02/2026	05/02/2027
2	Fine Particulate Sampler - Sr. No. 1341-G-23	12/09/2025	11/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0157,0171,0191,0215,0231,0248,0264,0287	Test Report Date	02.03.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	February - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Amona Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.3 °C
Average Relative Humidity [%]	63%

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/26/0157	02.02.2026	51.76	25.84	13.41	15.32	< 20	0.99	0.01	<1.0	<0.4	4.99	< 20	< 0.5
2	GA/VEN/26/0171	05.02.2026	54.55	27.11	13.30	15.20	< 20	0.81	0.06	<1.0	<0.4	3.85	< 20	< 0.5
3	GA/VEN/26/0191	09.02.2026	56.70	25.73	13.63	15.43	< 20	0.88	0.05	<1.0	<0.4	2.74	< 20	< 0.5
4	GA/VEN/26/0215	12.02.2026	58.30	28.43	14.17	15.71	< 20	0.91	0.06	<1.0	<0.4	2.49	< 20	< 0.5
5	GA/VEN/26/0231	16.02.2026	55.65	26.36	13.95	15.83	< 20	0.88	0.06	<1.0	<0.4	2.49	< 20	< 0.5
6	GA/VEN/26/0248	19.02.2026	52.46	25.61	13.74	15.71	< 20	0.92	0.02	<1.0	<0.4	1.87	< 20	< 0.5
7	GA/VEN/26/0264	23.02.2026	48.91	24.51	14.39	16.20	< 20	0.90	0.06	<1.0	<0.4	4.36	< 20	< 0.5
8	GA/VEN/26/0287	26.02.2026	53.47	27.49	14.61	15.96	< 20	0.92	0.04	<1.0	<0.4	4.61	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
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NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 ( Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2841-DTB-2020	07/02/2025	06/02/2027
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/06/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0161,0176,0195,0220,0235,0253,0268,0292	Test Report Date	02.03.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM - GOA.		
Letter Ref / Date	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	February - 2026		

#### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Maina Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	28.6 °C
Average Relative Humidity [%]	65.7 %

#### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/26/0161	02.02.2026	55.68	28.24	14.06	16.62	< 20	0.85	<0.01	<1.0	<0.4	6.98	< 20	< 0.5
2	GA/VEN/26/0176	05.02.2026	53.37	27.05	14.39	16.86	< 20	0.87	0.06	<1.0	<0.4	4.85	< 20	< 0.5
3	GA/VEN/26/0195	09.02.2026	52.62	26.35	14.06	16.62	< 20	0.90	0.03	<1.0	<0.4	2.61	< 20	< 0.5
4	GA/VEN/26/0220	12.02.2026	54.35	25.98	14.28	16.45	< 20	0.85	0.05	<1.0	<0.4	1.25	< 20	< 0.5
5	GA/VEN/26/0235	16.02.2026	57.04	27.51	14.06	16.45	< 20	0.82	0.04	<1.0	<0.4	2.61	< 20	< 0.5
6	GA/VEN/26/0253	19.02.2026	53.75	26.44	14.28	17.18	< 20	0.88	0.01	<1.0	<0.4	5.22	< 20	< 0.5
7	GA/VEN/26/0268	23.02.2026	52.22	27.22	14.06	16.82	< 20	0.83	0.05	<1.0	<0.4	3.48	< 20	< 0.5
8	GA/VEN/26/0292	26.02.2026	54.46	28.44	14.06	17.18	< 20	0.85	0.02	<1.0	<0.4	7.18	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. - National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

Note :

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7. Test methods of analyzed parameters are back side of analysis report.

CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2822-DTB-2020	06/02/2026	05/02/2027
2	Fine Particulate Sampler - Sr. No. 1359-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0309,0324,0339,0354,0369,0384,0402,0417,0433	Test Report Date	04.04.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	March - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Navelim Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	33 °C
Average Relative Humidity [%]	63 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters											
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P
1	GA/VEN/26/0309	02.03.2026	51.47	25.50	14.72	15.83	< 20	0.80	0.06	<1.0	<0.4	7.56	< 20	< 0.5
2	GA/VEN/26/0324	05.03.2026	54.32	27.43	14.94	16.32	< 20	0.77	0.06	<1.0	<0.4	10.66	< 20	< 0.5
3	GA/VEN/26/0339	09.03.2026	52.29	25.94	15.04	16.69	< 20	0.78	0.05	<1.0	<0.4	4.09	< 20	< 0.5
4	GA/VEN/26/0354	12.03.2026	50.83	25.73	15.48	15.59	< 20	0.78	0.04	<1.0	<0.4	4.17	< 20	< 0.5
5	GA/VEN/26/0369	16.03.2026	53.25	28.41	15.59	16.08	< 20	0.81	0.05	<1.0	<0.4	2.69	< 20	< 0.5
6	GA/VEN/26/0384	19.03.2026	51.79	26.76	15.26	16.82	< 20	0.78	0.06	<1.0	<0.4	4.02	< 20	< 0.5
7	GA/VEN/26/0402	23.03.2026	53.55	27.85	15.04	17.06	< 20	0.80	0.07	<1.0	<0.4	6.84	< 20	< 0.5
8	GA/VEN/26/0417	26.03.2026	55.56	27.68	14.94	16.82	< 20	0.72	0.04	<1.0	<0.4	1.25	< 20	< 0.5
9	GA/VEN/26/0433	30.03.2026	56.31	26.74	15.37	17.18	< 20	0.74	0.05	<1.0	<0.4	3.74	< 20	< 0.5
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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7. Test methods of analyzed parameters are back side of analysis report.

CHECKED BY

Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 ( Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):-2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2831-DTB-2020	06/02/2026	05/02/2027
2	Fine Particulate Sampler - Sr. No. 1341-G-23	12/09/2025	11/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0306,0320,0336,0350,0366,0380,0399,0413,0430	Test Report Date	04.04.2026
Customer Name and Address	M/s. VEDANTA LIMITED; VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	March - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Amona Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	32 °C
Average Relative Humidity [%]	63%

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters												
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P	
1	GA/VEN/26/0306	02.03.2026	55.17	28.83	14.83	16.20	< 20	0.78	0.04	<1.0	<0.4	2.12	< 20	< 0.5	
2	GA/VEN/26/0320	05.03.2026	60.65	29.44	15.04	16.45	< 20	0.83	0.11	<1.0	<0.4	2.84	< 20	< 0.5	
3	GA/VEN/26/0336	09.03.2026	57.19	28.48	15.59	16.82	< 20	0.85	0.03	<1.0	<0.4	3.83	< 20	< 0.5	
4	GA/VEN/26/0350	12.03.2026	54.38	26.81	14.94	15.83	< 20	0.79	0.03	<1.0	<0.4	4.16	< 20	< 0.5	
5	GA/VEN/26/0366	16.03.2026	56.68	29.34	15.15	16.20	< 20	0.80	0.03	<1.0	<0.4	3.04	< 20	< 0.5	
6	GA/VEN/26/0380	19.03.2026	55.20	28.32	15.37	16.45	< 20	0.79	0.05	<1.0	<0.4	3.76	< 20	< 0.5	
7	GA/VEN/26/0399	23.03.2026	52.62	26.43	15.15	17.18	< 20	0.78	0.08	<1.0	<0.4	3.22	< 20	< 0.5	
8	GA/VEN/26/0413	26.03.2026	58.28	29.47	14.83	16.57	< 20	0.75	0.05	<1.0	<0.4	6.09	< 20	< 0.5	
9	GA/VEN/26/0430	30.03.2026	53.77	27.89	15.04	17.06	< 20	0.73	0.04	<1.0	<0.4	0.87	< 20	< 0.5	
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1	
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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Test methods of analyzed parameters

Parameters	Methods
PM <sub>10</sub>	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	IS 5182 (Part II) 2001
NO <sub>2</sub>	IS 5182 (Part VI) 2006
CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 2841-DTB-2020	07/02/2025	06/02/2027
2	Fine Particulate Sampler - Sr. No. 1327-F-23	13/09/2025	12/09/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/06/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0310,0325,0340,0355,0370,0385,0403,0418,0434	Test Report Date	04.04.2026
Customer Name and Address	M/s. VEDANTA LIMITED. VALUE ADDED BUSINESS, AMONA AND NAVELIM, BICHOLIMM – GOA.		
Letter Ref / Date .	As per dated PO /2025/05/06288 (7920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Month of Sampling	March - 2026		

### SAMPLING DETAILS - AMBIENT AIR MONITORING :

Sampling Location	Maina Village
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	31.5 °C
Average Relative Humidity [%]	61 %

### ANALYSIS REPORT :

Sr. No.	Report No.	Date of Sampling	Parameters												
			PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	CO***	Pb	C <sub>6</sub> H <sub>6</sub>	As	Ni	O <sub>3</sub> ***	B(a)P	
1	GA/VEN/26/0310	02.03.2026	53.58	30.01	14.61	16.82	< 20	0.79	0.04	<1.0	<0.4	9.72	< 20	< 0.5	
2	GA/VEN/26/0325	05.03.2026	57.50	28.06	14.15	16.57	< 20	0.78	0.11	<1.0	<0.4	10.20	< 20	< 0.5	
3	GA/VEN/26/0340	09.03.2026	55.19	29.11	14.83	16.94	< 20	0.73	0.06	<1.0	<0.4	4.85	< 20	< 0.5	
4	GA/VEN/26/0355	12.03.2026	52.68	26.27	15.26	17.06	< 20	0.80	0.05	<1.0	<0.4	4.71	< 20	< 0.5	
5	GA/VEN/26/0370	16.03.2026	54.37	28.42	15.37	16.82	< 20	0.77	0.04	<1.0	<0.4	2.96	< 20	< 0.5	
6	GA/VEN/26/0385	19.03.2026	56.28	29.16	15.15	16.57	< 20	0.80	0.08	<1.0	<0.4	4.79	< 20	< 0.5	
7	GA/VEN/26/0403	23.03.2026	58.48	31.05	15.37	17.18	< 20	0.81	0.07	<1.0	<0.4	2.95	< 20	< 0.5	
8	GA/VEN/26/0418	26.03.2026	53.40	26.62	15.48	16.94	< 20	0.74	0.05	<1.0	<0.4	3.00	< 20	< 0.5	
9	GA/VEN/26/0434	30.03.2026	52.41	27.08	15.26	17.55	< 20	0.75	0.05	<1.0	<0.4	2.86	< 20	< 0.5	
NAAQS Limits*			100	60	80	80	400	2	1	5	6	20	100	1	
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>	ng/m <sup>3</sup>	µg/m <sup>3</sup>	ng/m <sup>3</sup>

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\*\* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

\*\*\* 8 Hourly Value

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[JAGANNATH S. PARAB]**

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Test methods of analyzed parameters

Parameters	Methods
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PM <sub>2.5</sub>	IS 5182 (Part XXIV) 2019
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CO	IS 5182 (Part X) 1999
Lead (Pb)	IS 5182 (Part XXII) 2004
Ozone (O <sub>3</sub> )	IS 5182 (Part IX) 2019
Ammonia (NH <sub>3</sub> )	IS 5182 (Part XXV) 2018
Benzene (C <sub>6</sub> H <sub>6</sub> )	IS 5182 (Part XI) 2006
Benzo Pyrene (B(a)P)	IS 5182 (Part XII ):2004
Arsenic (As)	IS 5182 (Part XXII ):2004
Nickel (Ni)	IS 5182 (Part XXI):2020

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sampler - Sr. No. 2822-DTB-2020	06/02/2026	05/02/2027
2	Fine Particulate Sampler - Sr. No. 1359-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026

**Annexure III**  
**Pre and post monsoon ground water monitoring reports**

**Annexure III**  
**Pre and post monsoon ground water monitoring reports**

**Annexure IV**  
**Water withdrawal permissions**



GOVERNMENT OF GOA  
OFFICE OF THE EXECUTIVE ENGINEER  
WORKS DIVISION I  
WATER RESOURCES DEPARTMENT  
1<sup>st</sup> FLOOR, NR. POLICE STATION,  
SINCHAI BHAVAN, PORVORIM GOA

No. F.15/ASW/WDI/WRD/2026-27/34

Date: 27/04/2026

To,  
M/s Vedanta Ltd,  
Sesa Ghor,  
20 EDC Complex,  
Patto Panaji-Goa.

Sub: Renewal of N.O.C for water drawal from Valvonti river at  
Virdi, Sanquelim, for Vedanta Ltd, Amona & Navelim Plant.  
Ref No: WRD/WD VI/SD-I/2023-24/ F.50/434 dated: 17/02/2025.

Sir,

With reference to your application dated 20/01/2026, the N.O.C for drawal of water from Valvonti river at Virdi to the extent of 10,000.00 cum/day is renewed for further period with following conditions:

1. Measuring devices shall be fixed by the applicant at their own cost.
2. The company should pay for the raw water at prevailing rate as fixed by Government.
3. Before releasing the residual water/concentrate, following precautions are to be taken:
  - a) The residue to the desalinated process should be treated and let out into the river so that the marine life and ecology and other environmental parameters are not affected.
  - b) As abundant precaution, the residual water should be mixed with water to cool down the concentrate to normal temperature.
  - c) The residual water should be released during of start of low tide.
  - d) To dilute the residual concentrate to bring it back to normal sea salinity of 30,000g/lit before releasing into the canal.
  - e) If there is any adverse effect on the environmental/marine life or any other reason, Government reserves the right to withdrawal N.O.C. without prejudice.
4. Validity of N.O.C. is further extended upto 19<sup>th</sup> April, 2027.

Yours Faithfully,

EXECUTIVE ENGINEER-I &  
CANAL OFFICER (N)

**Copy to:-**

1. The Chief Engineer, W.R.D, Sinchai Bhavan, Alto Porvorim-Goa.
2. The Superintending Engineer, Circle I, W.R.D, Sinchai Bhavan, Alto Porvorim-Goa.
3. The Executive Engineer, W.D. VI, W.R.D., Bicholim-Goa.



GOVERNMENT OF GOA  
OFFICE OF THE EXECUTIVE ENGINEER  
WORKS DIVISION I  
WATER RESOURCES DEPARTMENT  
1<sup>st</sup> FLOOR, NR. POLICE STATION,  
SINCHAI BHAVAN, PORVORIM GOA

No. WRD/WDI/ASW/F.15/2025-26/ 700

Date: 20 / 02 / 2026

To,  
✓ M/s Vedanta Ltd,  
Sesa Ghor,  
20 EDC Complex,  
Patto Panaji-Goa.

**Sub:** Renewal of N.O.C for water drawal from Mandovi river at Amona, for 30 MW waste heat recovery Power plant.

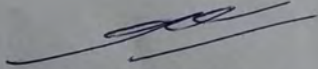
**Ref:** No: WRD/WDVI/SD-I/2025-26/F.04/413 dtd: 16/01/2026

Sir,

With reference to your application dated 09/01/2026, the N.O.C for drawal of water from Mandovi river at Amona to the extent of 7000.00m<sup>3</sup>/day is renewed for further period with following conditions:

1. The drawal of water to the plant shall not exceed the sanctioned quantity.
2. Measuring devices shall be fixed by the applicant at their own cost.
3. The company should pay for the raw water at prevailing rate as fixed by Government.
4. Before releasing the residual water/concentrate, following precautions are to be taken:
  - a) The residue to the desalinated process should be treated and let out into the river so that the marine life and ecology and other environmental parameters are not affected.
  - b) As abundant precaution, the residual water should be mixed with water to cool down the concentrate to normal temperature.
  - c) The residual water should be released during of start of low tide.
  - d) To dilute the residual concentrate to bring it back to normal sea salinity of 30,000g/lit before releasing into the canal.
  - e) If there is any adverse effect on the environmental/marine life or any other reason, Government reserves the right to withdraw N.O.C. without prejudice.
5. Validity of N.O.C. is further extended upto 21<sup>st</sup> February, 2027.

Yours Faithfully,

  
EXECUTIVE ENGINEER-I &  
CANAL OFFICER (N)

Copy to:-

1. The Chief Engineer, W.R.D, Sinchai Bhavan, Alto Porvorim-Goa.
2. The Superintending Engineer, Circle I, W.R.D, Sinchai Bhavan, Alto Porvorim-Goa.
3. The Executive Engineer, Works Division-VI, WRD, Bicholim Goa.

**Annexure IX**  
**Activities carried out as per approved wildlife management plan**

Ref No. VAB/ENV/2022-23/42

Date: 27/12/2022

To,

The Office of The Deputy Conservator of Forests,  
Wildlife and EcoTourism (North) Division  
1<sup>st</sup> Lift, 4<sup>th</sup> Floor, Junta House,  
Panaji-403 001 Goa

Sub: - Wildlife Conservation Plan for obtaining Environmental Clearance

**Reference:**

1. Letter no. 1-576/WL&ET(N)/2022-2023/661 dated 02/06/2022 received by us on 15/06/2022.

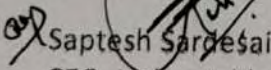
Respected sir,

With respect to the letter received from your good office vide Letter no. 1-576/WL&ET(N)/2022-2023/661 dated 02/06/2022 received by us on 15/06/2022, we are handing over 10 nos of trap cameras w.r.t to compliance Sr.No.4 of providing trap cameras to analyse the movement of wild animals.

Thanking you

Yours faithfully

**For Vedanta Limited- Value Added Business**

  
Saptesh Sardesai  
CEO- Value Added Business

  
Despatch Clerk  
O/o The Dy. Conservator of Forests  
Wildlife & Eco-Tourism (North)  
Panaji - Goa

VEDANTA LIMITED

Sesa Goa iron ore: Sesa Ghor, 20 EDC Complex, Patto, Panjim, Goa - 403 001, India  
T: 91 0832 2460600 | Website: [www.sesagoaironore.com](http://www.sesagoaironore.com)

Registered Office:

Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India  
CIN: L13209MH1965PLC291394



GOVERNMENT OF GOA  
OFFICE OF THE DEPUTY CONSERVATOR OF FORESTS  
WILDLIFE & ECO- TOURISM (NORTH) DIVISION  
1<sup>ST</sup> LIFT, 4<sup>TH</sup> FLOOR, JUNTA HOUSE,  
PANAJI - 403 001 (GOA)

Phone: 0832-2229701/ E mail: [dcfwlnorth-forest.goa@nic.in](mailto:dcfwlnorth-forest.goa@nic.in)

No.1-576/WL&ET(N)/2022-23

Dated:27/12/2022

**RECEIPT**

Received 10 nos. of trap cameras alongwith Safety Cases, 32 GB Memory Card & Duracell Batteries under Wildlife Conservation Plan for obtaining Environmental Clearance to analyse the movement of wild animals from Vedanta Limited, Sesa Goa Iron Ore : Sesa Ghor, 20 EDC Complex, Patto Panaji vide letter no.VAB/ENV/2022-23/42 dated 27/12/2022.

**(Anand S. Jadhav)**

Dy. Conservator of Forests  
Wildlife & Eco-Tourism (N)



GOVERNMENT OF GOA  
OFFICE OF THE DEPUTY CONSERVATOR OF FORESTS  
WILDLIFE & ECO- TOURISM (NORTH) DIVISION  
1<sup>ST</sup> LIFT, 4<sup>TH</sup> FLOOR, JUNTA HOUSE,  
PANAJI - 403 001 (GOA)

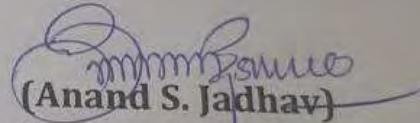
Phone: 0832-2229701/ E mail: [dcfwlnorth-forest.goa@nic.in](mailto:dcfwlnorth-forest.goa@nic.in)

No.1-576/WL&ET(N)/2022-23

Dated:10/02/2023

**RECEIPT**

Received 15 nos. of trap cameras alongwith Safety Cases, 32 GB Memory Cards & Duracell Batteries and assistance for celebration of Wildlife Week '2023 under Wildlife Conservation Plan from Vedanta Limited, Sesa Goa.

  
(Anand S. Jadhav)

Dy. Conservator of Forests  
Wildlife & Eco-Tourism (N)

Letter No: VAB/ENV/23-24/23

Date:18/10/2023

To,

The Deputy Conservator of Forest – Wild Life North  
Wildlife and EcoTourism (North) Division  
1<sup>st</sup> Lift, 4<sup>th</sup> Floor, Junta House,  
Panaji-403 001 Goa

Sub: - Implementation of approved Wildlife Conservation Plan

Reference:

1. Your letter numbered 1-576/WL&ET(N)/2022-2023/1131 dated 04/07/2023

Respected Sir,

We are sharing herewith the final proposal for rescue van with detail specification for your approval.

**1. Vehicle Offer :**

S.No.	Details	Value in Rupees
1.	SML ISUZU Cabin Chassis Prestige 4WD on 3365 Wheel Base With Power Steering BS VI	19,64,844.00
2.	GST @ 28%	5,50,156.00
Total		25,15,000.00
<b>Terms and Conditions :</b> <ol style="list-style-type: none"><li>1. TCS @ 1% extra on above offered price.</li><li>2. Price is valid till 30<sup>th</sup> July 2023.</li><li>3. 100% payment advance along with Purchase Order.</li><li>4. Delivery 2 to 4 weeks from date of confirm order.</li><li>5. Other conditions as mentioned in the product catalogue.</li></ol>		

VEDANTA LIMITED

Sesa Goa Iron Ore, Sesa Ghor, 20 EDC Complex, Patto, Panjim, Goa - 403 001, India  
T +91 0832 2460600 - Website: www.sesagoanironore.com

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, And Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India

CIN: L13209MH1965PLC291394

*18/10/2023*  
Despatch Clerk  
O/o The Dy. Conservator of Forests  
Wildlife & Eco-Tourism (North)  
Panaji - Goa

**2. Vehicle Fabrication Charges**

S.No.	Details	Value in Rupees
1.	<p>Fabrication of "Animal Rescue Vehicle" similar to the existing vehicles supplied by the SML-ISUZU Limited to "VAN VIHAR" Bhopal the past with additional improvements.</p> <p>Features :</p> <ol style="list-style-type: none"> <li>Animal Cabin area with improved insulation for better cooling.</li> <li>Overhead Luggage carrier with equipment box.</li> <li>Ladder for easy access to top of the cabin.</li> <li>Foldable seats for 4 persons with steel frame and improved cushioning.</li> <li>Stainless Steel Wash basin with Tap.</li> <li>Overhead Water tank of 60 Litre capacity.</li> <li>Refrigerator for medicine supplies and Ice packs.</li> <li>Stainless Steel Counter Top with cupboard for supplies and equipment.</li> <li>Water Spray nozzle for humidity control inside cabin.</li> <li>1.5 Ton Air conditioner unit for extra cooling inside the cabin.</li> <li>Positive locking of cage on floor to avoid jumping of cage during movements.</li> <li>Extra strengthening with 6 angle sections for the floor of cabin.</li> <li>One tower bolt in the tool box with Emergency gate.</li> <li>Fully automatic Cage retrieval mechanism along with automatic door closing.</li> <li>Top mounted rear CCTV Camera with display unit near driver.</li> <li>Flood light facility for rear loading door.</li> </ol>	17,26,000.00
2.	GST @ 18%	3,10,680.00
<b>Total</b>		<b>20,36,680.00</b>

**Terms and Conditions :**

- Delivery of completed vehicle as per above specs shall be 8-12 weeks from date of receipt of 4WD Cabin Chassis.
- TCS @ 1 % extra on above price.
- 50% payment advance along with Purchase Order.
- Balance payment after delivery and sign off of fully fabricated vehicle.
- Delivery charges of Rs. 45,000/- at site in Goa.
- Offer valid for 60 days from date of quotation.
- Colour scheme to be finalized at the time of delivery.
- Promotion signages shall be in the form of Stickers and payable at actuals.
- After receipt of clear purchase order, we shall submit detail drawings with a 3D presentation for better understanding of the user within a week.**

**VEDANTA LIMITED**

Sesa Goa Iron Ore: Sesa Ghor, 20 FDC Complex, Patto, Pongm, Goa - 405 004, India  
T: +91 0832 2460600 | Website: www.sesagoaonore.com

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India  
CIN: L13209MH1965PLC291594

10. We expect an official sign off from the concern user in presence of your representatives for positive acceptance of the vehicle.	
11. Vehicle RTO and Insurance charges extra at actuals.	
<b>Total Price of the Rescue vehicle</b>	Rs. 45,51,680.00

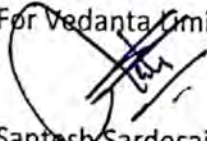
**3. CAGE Fabrication Charges**

Cage specifications and price	
Details	Price
Cage Specifications :  1. 7'4" (L) X 3'2" (B) X 3'7" (H) 2. Floor 2 mm MS Chequered Plate 3. Side Sheet 1.6 mm 4. Two Ventilator and one sliding door. 5. MS Bars of 16 mm 6. Industry quality Hard PVC Wheels.	Rs. 1,35,000.00
GST @ 18 %	Rs. 24,300.00
Total Price	Rs. 1,59,300.00
Total price for rescue van, vehicle fabrication and cage fabrication	Rs. 4710980

Request your good office to please confirm on the specification provided above in order to process the offer.

Thanking you,

Yours faithfully,  
 For Vedanta Limited



Saptesh Sardesai  
 CEO Value Added Business & Sesa Cement  
 Vedanta Ltd

VEDANTA LIMITED  
 Sesa Goa Iron Ore, Sesa Ghor, 20 EDC Complex, Patto, Panjim, Goa - 403 001, India  
 T : +91 0832 2460600 | Website: www.sesagoironore.com

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India  
 CIN: I13209VH11965PLC291394



GOVERNMENT OF GOA  
 OFFICE OF THE DEPUTY CONSERVATOR OF FORESTS  
 WILDLIFE & ECOTOURISM (NORTH) DIVISION  
 1<sup>ST</sup> LIFT, 4<sup>TH</sup> FLOOR, JUNTA HOUSE,  
 PANAJI – 403 001 (GOA)

Phone: 0832-2229701/ Fax: 0832-2422864

E mail: [dcfwlnorth-forest.goa@nic.in](mailto:dcfwlnorth-forest.goa@nic.in)

\*\*\*\*\*

No. 1-576-WL&ET(N)/2023-2024/2820

Dated: - 03 /11/2023

Kartika 12, 1945

To,  
 The CEO,  
 Value Added Business & Sesa Cement,  
 Vedanta Limited,  
 Sesa Ghor, 20 EDC Complex,  
 Patto, Panjim-Goa.

*Vedanta/Sesam*  
*As per the needful.*  
*[Signature]*  
*5/11/2023*

**Sub: Implementation of approval Wildlife Conservation Plan- reg...**

**Ref.: No: VAB/ENV/23-24/23 dated. 18/10/2023.**

Sir,

With reference to the subject and letter cited above, this is to inform that this office is in agreement to the details of Rescue Van proposed along with specifications mention thereof and the same has been approved.

You are kindly requested to complete the procurement process early basis.

Yours faithfully,

*[Signature]*  
 (Anand S. Jadhav, IFS)  
 Dy. Conservator of Forests  
 Wildlife & Eco-Tourism (N)  
 Panaji-Goa.

“ATMANIRBHAR BHARAT”  
 “SWAYAMPURNA GOA”

RE: Rescue Van Drawing Approval



Prachi Kudnekar  
 To: DCFWLNorth  
 Cc: Vandita Korgaokar, Soham Mukherjee, Saptesh Sardesai  
 Bcc: Banita Gaonkar

☺ Reply Reply All Forward 📧 ⋮

Fri 23-02-2024 14:47

Public (C4)

Sir,

With respect to Wild life management plan(Approval letter No. 1-576(PART)WL&ET(N)/2021-2022/554 dated 28/05/2021) of Value Added Business of Vedanta Ltd (located at Amona – Navelim Goa and your trailing mail dated 19/02/2024,below is the vendors response against each point asked towards additional utilities for the rescue van. The estimate for the Fabrication of Storage bins, SS First Aid Box, Other Provisions for Storage and Ceiling reinforcement will be approximately 92k plus GST 18% which will be charged additionally and will be taken from line item no.1(Establishment of waterholes for wildlife in the buffer area) or other item where amount is available from approved wildlife management plan hence kindly confirm if we need to proceed with the implementation.

Sr. No	Requirement	Type	Remarks from Midwest
1.	Provision for storing Nylon nets used in animal restrain there will be three sets of nets of three different dimension weighing about 100 kg	Storage can be Hammock type within the crate of rescue van.	The said provision can be incorporated in the structure.
2.	Provision for stacking First Aid Box ( Veterinary and First aid box for human use. Each box size is 60 cm x 40 cm x 40 cm size	Metallic storage cabinet with locking mechanism.	The said cabinet can be carved out of wood or SS, and will be hanged inside the body for ease of accessibility.
3.	Collapsible racks three tier on sideways for storing Rescue equipment like restrain poles , y tongs, jab sticks etc.	Metallic pipe type or aluminium pipe type collapsible racks on side of crates inside.	Will require the dimensions of the equipment which is needed to be kept in the vehicle.
4.	Extra height luggage carrier on top to be used as Machan or raise platform for darting problematic animal from safe location.	Metallic type	Included in fabrication for Point 6.
5.	Proper drain for inside of crate in rescue van for draining urine and washing inside of crate. With 10 litre plastic or fibre collection bin.	PVC type with Attached barrel for collection bin type.	Already included in the design.
6.	Crate ceiling top surface to be flat and reinforced from bottom so as to allow staff to stand or sit on top of roof of vehicle while darting animal.	Metallic concealed reinforcement from bottom of crate top.	Can be done with a collapsible railing for security and stability of the staff.



GOVERNMENT OF GOA  
OFFICE OF THE DEPUTY CONSERVATOR OF FORESTS  
WILDLIFE & ECOTOURISM (NORTH) DIVISION  
1<sup>ST</sup> LIFT, 4<sup>TH</sup> FLOOR, JUNTA HOUSE,  
PANAJI – 403 001 (GOA)

Phone: 0832-2229701/ Fax: 0832- 2422864  
E mail: [dcfwnorth-forest.goa@nic.in](mailto:dcfwnorth-forest.goa@nic.in)

\*\*\*\*\*

No. 1-576/WL&ET(N)/2023-2024/4624

Dated: -27/02/2024  
Phalguna 8 , 1945

To,  
Smt. Prachi Zarmekar,  
Associate Officer, Environment Department  
Vedanta Limited,  
Village Amona/Navelim,  
Bicholim-Goa.

**Sub: Rescue Van drawing Approval -Reg...**  
**Ref: Your letter email dated 23.02.2024.**

Madam,

With reference to the above cited subject and referred email, it is to inform that drawing and proposed layout of the vehicle body along with the suggestions for providing extra utility for rescue van has been approved by the Forest Department.

Therefore, I am request you to take up the work of rescue van as early as possible.

Submitted for necessary action please.

Yours faithfully,

**(Anand S. Jadhav, IFS)**  
Dy. Conservator of Forests  
Wildlife & Eco- tourism (N)

.....

"ATMANIRBHAR BHARAT"  
"SWAYAMPURNA GOA"

Ref.No.: VAB/ENV/24-25/29

Date: 15/10/2024

To,  
The Deputy Conservator of Forest – Wild Life North  
Wildlife and EcoTourism (North) Division  
1<sup>st</sup> Lift, 4<sup>th</sup> Floor, Junta House,  
Panaji-403 001 Goa

Sub: Implementation of approved Wildlife Conservation Plan

Reference:

1. Approved Wild life conservation plan (WLCP) vide letter no.1-576(PART)WL&ET(N)/2021-2022/554 dated 28/05/2021
2. Your letter numbered 1-576/WL&ET(N)/2022-2023/661 dated 02/06/2022 Jyaistha 12,1944 received by our office on 15/06/2022
3. Your letter numbered 1-576/WL&ET(N)/2023-2024/4472 dated 16/02/2024 Magha 27,1945 received by our office on 22/02/2024

Respected Sir,

With reference to the above letter numbers, we would like to inform your good office that the below activities/items requested as per the WLCP are handed over to your good office for FY 2024-25. The complete details of the same are mentioned as below:

Sr.No as per WLCP	Plan of operations	Cost	Date of handover	Remarks
1	Establishment of water holes for wildlife in the buffer area FY 22-23,23-24	8,00,000	10/07/2024	Amount credited to vendor Hajrat Ali Nanesab Badgi RTGS Dr-BARBOPONDAX-Hajrat Ali Nanesab Badgi-CBX Internet-HDFCR52024071073842346-C76718100724104759

VEDANTA LIMITED  
Value Added Business, Pig Iron Division, Amona, PO Marcela, Goa-403 107  
T +91-832 641 2160 | F +91-832 238 5235 288 | Web: [www.sesagoaironore.com](http://www.sesagoaironore.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India.  
CIN: L13209MH1965PLC291394

*15/10/2024*  
Despatch Clerk  
O/o The Dy. Conservator of Forests  
Wildlife & Eco-Tourism (North)  
Panaji, Goa

2	Providing rescue van to Forest department	4,670,000	05/07/2024	Rescue van along with rescue cage handed over to Forest department
3	Providing rescue cages and rescue equipment's to the forest department			
6	Financial support to the department for celebrating wildlife week and sponsoring the prizes for the competitions	3,00,000	03/07/2024	NEFT - FDRL0001352 - C77205020724142929 - - 13520200007161 - SMC EVENTS NEFT - FDRL0001352 - C77206020724142930 - - 13520200007146 - MECH TECH EVENTS
	Total amount	57,70,000/-		

We request your good office to kindly acknowledge the same.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Addition Business

  
Saptesh Sardesai

CEO - Value added Business & Cement

**VEDANTA LIMITED**

Value Added Business, Pig Iron Division, Amona, PO Marcela, Goa-403 107  
T +91-832 641 2160 | F +91-832 238 5235 288 | Web: [www.sesagoironore.com](http://www.sesagoironore.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India.  
CIN: L13209MH1965PLC291394

**Annexure V**  
**Mitigation measures**

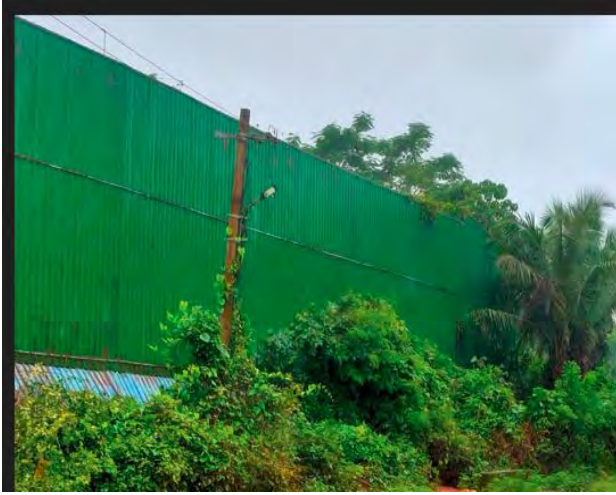
# MITIGATION MEASURES

## Baghouse systems



## Windshields along the boundaries

# MITIGATION MEASURES



**Windshields with top sprinklers**



# MITIGATION MEASURES

## Fogging systems



## Rain guns and fog cannon



## Closed conveyors



# MITIGATION MEASURES

## Covering transportation trucks



## Speed limit board



## Wheel wash system at exit



## Road sweeping machine



# MITIGATION MEASURES

**Closed raw material shed**



**Green belt developed**



## MITIGATION MEASURES



**Annexure VI**  
**Green belt developed along the boundaries and windshield**

## Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



# Developed green belt and windshield along the boundaries



## Developed green belt and windshield along the boundaries



PLANTATION 25-26

Plantation at the toe of geo textile covered dump



# PLANTATION 25-26

## Plantation on geotextile covered dumps



PLANTATION 25-26



PLANTATION 25-26



## PLANTATION 25-26



Plantation done along the boundaries



PLANTATION 25-26

GAP filling in existing green belt



PLANTATION 25-26

Plantation inward slips

**RUKMINI GARDNER**  
 Prop: Nitin V. Parab  
 H. No. 456, At Kalamwada,  
 Amona-Goa, Post Marcela-Goa 403107  
 Land Scaping & Gardening Mob: 9420974688 / 9421248708  
 GSTIN: 30ALBPP1035A1Z4 PAN No.: ALBPP1035A

Month: Jun  
 Date: 25/06/25

To:  
 Vedanta Ltd.,  
 Navelim, Goa

Sub: Issue of Gate Pass from Plant

Sir,

Please issue the Gate Pass for plant

1) Bamboo — 400 Nos  
 Total = 400 Nos

B/P No - 4920078108  
 VEDICA NO - GA OST 5231

VEDANTA LIMITED  
 Received from RUKMINI GARDNER  
 Date: 25/06/25  
 Signature: [Signature]  
 Inward No: GA OST 5231

FOR RUKMINI GARDNER  
 Prop: NITIN PARAB

PAN No. ALBPP1035A

**RUKMINI GARDENER**  
 Prop: Nitin V. Parab  
 H. No. 456, At Kalamwada,  
 Amona-Goa, Post Marcela-403107  
 Land Scaping & Gardening Mob: 9420974688 / 9421248708  
 GST IN 30ALBPP1035A1Z4

Date: 05/06/25

To:  
 Vedanta Ltd  
 Navelim Goa

Sub: Issue the gate pass for plant

Rs Sir please Issue the gate pass for following plant

1) Jamun — 20 Nos  
 2) KaJu — 20 Nos  
 3) Bamboo — 40 Nos  
 4) Avla — 20 Nos  
 Total = 100

vermicompost — 10 Bag

B/P No - 4920078108  
 vedica no - GA OST 5231

VEDANTA LIMITED  
 Received from RUKMINI GARDNER  
 Date: 05/06/25  
 Signature: [Signature]  
 Inward No: GA OST 5231

FOR RUKMINI GARDENER  
 Prop: NITIN PARAB

PAN No. ALBPP1035A

**RUKMINI GARDENER**  
 Prop: Nitin V. Parab  
 H. No. 456, At Kalamwada,  
 Amona-Goa, Post Marcela-403107  
 Land Scaping & Gardening Mob: 9420974688 / 9421248708  
 GST IN 30ALBPP1035A1Z4

Date: 04/06/2025

To:  
 vedanta Ltd  
 Amona - Goa

Sub: Issue the gate pass for Plant

Rs Sir please Issue the gate pass for following plant

1) Totapuri — 25 Nos  
 2) Kokam — 50 Nos  
 3) Satru — 50 Nos  
 4) Bahara — 50 Nos  
 5) Jackfruit — 25 Nos  
 Total = 200

vermicompost — 10 Bag

B/P No - 4920078108  
 vedica no - GA OST 5231

VEDANTA LIMITED  
 PID O GATE  
 INWARD  
 Date: 04/06/25  
 Signature: [Signature]  
 Inward No: GA OST 5231

FOR RUKMINI GARDENER  
 Prop: NITIN PARAB

PAN No. ALBPP1035A

**RUKMINI GARDENER**  
 Prop: Nitin V. Parab  
 H. No. 456, At Kalamwada,  
 Amona-Goa, Post Marcela-403107  
 Land Scaping & Gardening Mob: 9420974688 / 9421248708  
 GST IN 30ALBPP1035A1Z4

Date: 11/06/2025

To:  
 vedanta Ltd  
 Amona Goa

Sub: Issue the gate pass for plant m.c.D.

Rs Sir please Issue the gate pass for following plant

1) Teak wood — 25 Nos  
 2) Jamun — 25 Nos  
 3) Bahara — 25 Nos  
 4) Avla — 25 Nos  
 5) Nagara — 25 Nos  
 6) B. J. Pinnala — 25 Nos  
 (Kart) Total = 200

B/P No - 4920078108  
 vedica no - GA OST 5231

VEDANTA LIMITED  
 PID O GATE  
 INWARD  
 Date: 11/06/25  
 Signature: [Signature]  
 Inward No: GA OST 5231

FOR RUKMINI GARDENER  
 Prop: NITIN PARAB

**Annexure VII**  
**Details of plantation uploaded on MeriLiFE portal**

Plantation drive on WED 25 under the campaign EK PED MAA KE NAAM at Vedanta Limited Value-Added Business Amona Navelim Goa and Amona high school Goa

MeriLIFE

Vandita Korgaokar

← Back #EkPedMaaKeNaam Plantation Form Dashboard Report

Place  
 Urban  Rural

State / UT\* Goa (GA) District\* North Goa

Municipal Corporation/Cantonment Ward No.

Place\* Location (Geo Tag)

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Regular

Upload Geotagged Photos\*

Select Image

Not more than 5 photos (.jpg, .jpeg, .png) and max. 2 mb for each photo

Photo Caption \*(Describe about your photo not more 200 words)  
Plantation drive carried out at Vedanta Li

Upload Video Clips

Select Video

Not more than 3 videos and each video not more than 45 seconds (.mp4, .mkv) and max. 5 mb for each video

Video Caption (Describe about your video not more 200 words)

Social Media Outreach URL


Remarks

Submit

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Plantation drive on WED 2025 under the campaign EK PED MAA KE NAAM at Vedanta Limited Value-Added Business Amona Navelim Goa and Amona high school Goa

Browser address: <https://merilife.nic.in/ministry/plantation-upgraded-view>



Unique ID	State / UT	District	Municipal Area	Ward No.	Village	Panchayat	Panchayat Samiti	Place	Location (Geo Tag)	Activity/Event Category
275814	Goa (GA)	North Goa						VEDANTA LIMITED AMONA NAVELIM GOA		Tree Plantation
277247	Goa (GA)	North Goa						VEDANTA LIMITED AMONA NAVELIM GOA		Tree Plantation

Name Of Activity/Event	Number of Sites	Number of Seedlings	Number of Trees Survival	Forest Type	Organization Type	Overall Tree Health Condition
PLANTATION DRIVE ON WED 2025	3	400		regular	others	None
	1	10		regular	others	None



Survival	Forest Type	Organization Type	Overall Tree Health Condition	Uploaded Survival Photo	Date	Uploaded Geotag Photo	Uploaded Video Clip
regular	others	others	None		05/06/2025		Not Uploaded
regular	others	others	None		05/06/2025		Not Uploaded

**Annexure VIII**  
**Details of CER implementation**

CER status			
Sr. No	Thematic area	Project	Status
1	Education	Development of Anagawadi at Durigwada with Change in roof, Building As Learning Aid painting, Smart TV set, modern play equipments and sanitation facility and solar panels under Project Nandghar	The Anaganwadi at Durigwada has been completely reneovated into Nandghar/Modern Anganwadi
2	Education	Construction of innovation lab with two rooms at GHS Amona	Construction of 2 rooms at GHS Amona completed
3	Education	Developing wifi infrastructure in amona and Navelim village and supporting 100 students to avail connections	Completed installation of WiFi at Navelim village.
4	Agriculture	Providing power tiller, tractor, rotary cultivator to Farmer groups of 8 Ha of uncultivated land at Dacul maina fields and 25 Ha land at Navelim Fields	Yearly around 8 lacs support provided to Dacul maina field for ploughing , harvesting , JCB support , fertilizer , seeds and fencing etc
5	Dairy	10 Cows to be provided by March 22 for identified farmers from amona and Navelim	After discussion with the local dairy farmers and per farmers requirement, Support provided in terms of supply of dry fodder and qauterly cattle feed provided to 3 dairy societies. The same is continuous in order to help local dairy farmers. Total cattles of 560 are being supported.
6	Fisheris	Cage fishing one pilot project at Navelim	Supported Farmers from Navelim to Set up cage fishing project at Navelim
7	Horticulture	Identifying and supporting 15 farmers ( 1 acre land per famer) Providing fencing , irrigation facility, saplings , fertilizers	In total untilt we have supported 65 farmers to develop horticulture plot in Amona and Navelim
8	Rural Infra	LED Streetlight - 1.5 Km road from Betal temple to Maina (70 poles and 70 fixtures)	Completed installing of strtreetlight from betal temple to Maina
9	Rural Infra	Traffic Signal: Maina Junction,	Signals/ Blinkers installed at Ghodbay to Maina road
10	Rural Infra	Bus stop: Timsawada Amona.	Completed construction of bus stop at timsawada, Amona
11	Rural Infra	Shed and pyre construction at Amona	Completed shed and pyre construction at Amona
12	Sports	illumination of football ground at amona ( 12 poles and 36 flood lights)	Completed upgradation of Amona Panchayat ground by laying of Artificial turf and installation of flood lights
13	Rural Infra	Construction of concrete retaining wall at maina storm water drain of 40 meters	Completed construction of concrete retaining wall at maina
14	Rural Infra	Construction of Material Recovery Facility with a shed to VP Amona	Constructed and handedover the MRF shed to VP Amona
15	Women empowerment	1.Identification of interested women, capacity building through orientation workshops and trainings. 2.5 startups to be created by March 22/ 34 women beneficiaries already engaged	In total we have created 12 buisness for the womens. Additionally we conduct training sessions and skill development sessions for the womens to continue and increase their earnings through business
16	Education	1.Providing Chemistry Laboratory equipments such as microscopes, industrial oven, Refrigerator, Counter tables to Government college Khandola	Setup of complete lab at Government College of Arts, Science and Commerce, Khandola completed.
17	Education	Upgradation of Anagawadi at Betalwada, Maina, Fanaswadi, Bharoniwada with Change in roof, Building As Learning Aid painting, Smart TV set, modern play equipments and sanitation facility and solar panels under Project Nandghar.	3 Nandghars/Modern Anganwadi developed in nearby Villages.
18	Education	Solar power station at GHS Navelim	Solar power station at GHS navelim has been taken up by Government. So completed work at HSS Khandola
19	Education	False ceiling support to Bhagat wada primary school.	Basis the Need assesment and requirement from the school support provided to primary School with partition work.
20	Education	Shed for cultural events at Fanaswadi Primary school	Completed shed for stage at Fanaswadi primary school
21	Education	Compound wall for Bandharwada Primary school	Compound wall repair and Painting work done for the Primary School as per the request from School Committee and PTA.
22	Education	Construction of new canteen block at Vividha Higher secondary School	As per the discussion and requirements from the School authorities, Anganwadi renovation, Higher secondary roof repair work, computer lab. And school building painting work taken up
23	Agriculture	Refurbishment of traditional irrigation system (bund repair, channels desilting) at Dacul maina and Navelim Fields	Completed the set up of bunds and irrigation facility at Dacul maina fields. Yearly support through ploughing, Seeds and fertilizers are being provided to farmers for cultivation of paddy and Alsana.
24	Education	Solar Power station for GHS amona school	Completed complete setup of Solar power station at GHS
25	Education	Auditorium facility at school	Completed complete upgradation of Auditorium at GHS Amona
26	Education	Construction of Toilet block - Amona	Work done by another company under their CSR at Amona village . However we have constructed 2 community toilet at Navelim
27	Dairy	20 Cows to be provided March 23 for identified farmers from amona and Navelim	After discussion with the local dairy farmers and per farmers requirement, Support provided in terms of supply of dry fodder and qauterly cattle feed provided to 3 dairy societies. The same is continuous in order to help local dairy farmers. Total cattles of 560 are being supported.
28	Agriculture	First Pilot project at Naveli, (100% support including training, poultry shed, feed etc for one project)	Completed all the training and construction of shed and support for the growth of poultry buisness
29	Fisheris	Upscaling of pilot project at Navelim with additional 4 cages And one project with 4 Cages at Amona	Completed project of fisheries at Navelim and Amona.
30	Horticulture	Identifying and supporting farmers 15 new by Providing fencing , irrigation facility, saplings , fertilizers	In total untilt we have supported 65 farmers to develop horticulture plot in Amona and Navelim
31	Rural Infra	LED Streetlight: 1 Km from maina junction till Ghodbaay Junction ( 30 poles and other fixtures)	Activity Completed by Government
32	Rural Infra	Traffic Signal: Ghodbaay Junction,	Signals/ Blinkers installed at Ghodbay to Maina road
33	Rural Infra	Padestrian Pathway: 0.5 Km Betal Temple to Maina Junction	Road shoulder repair and pathway completed in Betal temple area.
34	Rural Infra	Bus stop: Amona Junction	Completed construction of Bus stop at Amona junction from government
35	Health	Providing one Mobile health unit For surrounding villages (Amona, Naveli, Betali Candoda, Viridi, Kudina)	Running of CMC & MHU at Amona , Navelim and Conducted special health camps in village
36	Rural Infra	Shed for crematorium at Navelim.	As per the discussion and requirements from the villagers repair of the existing crematorium and road access for the crematorium was done.
37	Rural Infra	Compound wall for crematorium at Amona	Completed construction of crematorium at Amona
38	Sports	Making of volleyball/ badminton court at Navelim	Letter to panchayat has been given for land for the construction of Volleyball/badminton court
39	Rural Infra	Proper channelization of storm water to the river and increasing Maina lake capacity (sluce gate , channel desilting)	Diversion of storm water to River completed. Upgradation of lake work completed
40	Drinking water and sanitation	Enabling 50 % households with continuous drinking water supply as per PWD approved plan	Providing water for Maina continuously for 5 years.
41	Rural Infra	§Construction of Material Recovery shed at VP Navelim	The project has been completed from Navelim Panchayat
42	Women empowerment	Supporting the 5 start ups FY 22 and forming 10 new women entrepreneurs' startups 2.One outlet/store for 5 groups	In total we have created 12 buisness for the womens. Additionally we conduct training sessions and skill development sessions for the womens to continue and increase their earnings through business
43	Education	Construction of Physics laboratory room at Khandola college	Completed construction of Physics laboratory at Khandola college.
44	Education	Development of Garden and play equipment at maina primary school	Garden and play equipment developed at maina Primary school
45	Education	Solar power station at Vividha Higher secondary	Setup of solar power station at Vividha higher secondary school completed
46	Education	Distribution of 50 benches each in 3 primary schools of amona, 3 primary schools of Navelim, 2 primary school of Viridi and 2 primary schools of betli candoda - Total 500 benches	As discussed with the school authorities, there is No requirement of Benches hence other development works in school are taken up in consultation with school authorities.
47	Education	Roof work GPS Fanaswadi	Roofwork of GPS fanaswadi completed from government authority
48	Sports	Sports kit to GHS Amona and GHS Navelim	Provided sports kit to GHA Amona and GHS Navelim
49	Education	Providing Edu-tech smart boards for 10 class rooms of amona school	Completed setup of smart boards at Schools
50	Education	Paver blocks and landscaping at Assembly area of amona high school	Completed upgradation of assembly area at GHS Amona
51	Education	Providing 200 benches to GHS Amona	As discussed with the school authorities, there is No requirement of Benches hence other development works in school are taken up in consultation with school authorities.
52	Agriculture	Making new 1.5 km Access roads to fields at Navelim	Kaccha Access road made in maina fields, which is now made into pacca road from PwD
53	Agriculture	Alternate irrigation system and electrification through sinking of wells and pipelines at naveli and maina	Completed the set up of bunds and irrigation facility at Dacul maina fields. Yearly support through ploughing, Seeds and fertilizers are being provided to farmers for cultivation of paddy and Alsana.
54	Dairy	20 Cows to be provided March 24,for identified farmers from amona and Navelim	After discussion with the local dairy farmers and per farmers requirement, Support provided in terms of supply of dry fodder and qauterly cattle feed provided to 3 dairy societies. The same is continuous in order to help local dairy farmers. Total cattles of 560 are being supported.
55	Poultry	Second pilot project at Amona (100% support including training, poultry shed, feed etc)	Completed all the training and construction of shed and support for the growth of poultry buisness
56	Fisheris	Upscaling of pilot project at Amona with additional 4 cages	Completed all the training and construction of shed and support for the growth of poultry buisness
57	Horticulture	Identifying and supporting 15 new farmers by providing fencing , irrigation facility, saplings , fertilizers	In total untilt we have supported 65 farmers to develop horticulture plot in Amona and Navelim
58	Rural Infra	LED Streetlight: 0.5 Km from Ghodbaay Junction till Naveli Junction ( 15 poles and other fixtures)	Activity Completed From Government
59	Rural Infra	Pedestrian Pathway: 0.5 Km from Betal temple to Vedanta Gate	Completed pathway from betal temple to gate
60	Rural Infra	Bus stop: Maina Ferry point and Fanaswadi	Completed bus stop at Maina ferry point and Fanaswadi
61	Rural Infra	Shed for crematorium at Fanaswadi	Awaiting resolution from the panchayat for the construction of shed for crematorium at Fanaswadi
62	Sports	Laying of astro turf ( foot ball) at Amona panchayat ground.	Completed upgradation of Amona Panchayat ground by laying of Artificial turf and installation of flood lights
63	Rural Infra	Beautification of the maina lake area	Upgradation of lake work completed
64	Drinking water and sanitation	Enabling 50 % households with continuous drinking water supply as per PWD approved plan	Providing water for Maina continuously for 5 years.
65	Women empowerment	Handholding, increasing production, increasing market scope, additional machinery and capital requirement Opening one outlet/store for other 10 households	In total we have created 12 buisness for the womens. Additionally we conduct training sessions and skill development sessions for the womens to continue and increase their earnings through business

## CER2 Status

Year	Sr.No	Thematic area	Project	Budget	Spent	Current Status
FY25	1	Drinking Water & Sanitation	Construction/Repair of 5 toilets each in amona, Navelim and khandola (total 15	15.00	7.5	Completed
	2	Drinking Water & Sanitation	One EV ricksha to VP Navelim	5.00		Will be Completed by September 2026
	3	Women empowerment	Supporting 5 women entrepreneurs with skill development, capacity building and support to procure tools and machineries with maximum	10.00	5	Completed
	4	Girl students through scholarships and targeted courses/train ings	20 Girl students to be supported	5	3	Completed
FY26	1	Drinking Water & Sanitation	Construction/Repair of 5 toilets each in amona, Navelim and khandola (total 15	15	5.5	Completed
	2	Drinking Water & Sanitation	One EV ricksha to VP Amona	5		Will be Completed by September 2026
	3	Women empowerment	Supporting 5 women entrepreneurs with skill development, capacity building and support to procure tools and machineries with maximum	10	0.1	Completed
	4	Girl students through scholarships and targeted courses/train ings	20 Girl students to be supported	5		Will be Completed by june 2026
	5	Garbage blackspots elimination p	Identification & management of 10 Blackspc	30		Will be Completed by September 2026
FY27	1	Drinking Water & Sanitation	Construction/Repair of 10 toilets each in amona, Navelim and khandola (total 30	30		
	2	Women empowerment	Supporting 5 women entrepreneurs with skill development, capacity building and support to procure tools and machineries with maximum	10		
	3	Girl students through scholarships and targeted courses/train ings	20 Girl students to be supported	5		
	4	Setting up of Sanitary pad vending machine and	Setting up vending machine and incinerator in 2 High schools and 2 higher secondary schools	5		

**Annexure X**  
**Archaeological sites monitoring reports**



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1182	Test Report Date	28/10/2025
Customer Name and Address	M/s. VEDANTA LIMITED IRON AND COKE PLANTS, AMONA AND NAVELIM, BICHOLIM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	21/10/2025	Analysis Period	24/10/2025 To 28/10/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Siddhartha Caves, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27 °C
Average Relative Humidity [%]	89 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	38.26	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	18.36	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	< 20	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	10.42	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.65	4.0 for 1 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.03	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	180.0 for 1 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 (Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	6.02	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

CHECKED BY

#### Note :

1. The results relate only to the samples tested
2. Test Report shall not be reproduced except in full, without written approval of the laboratory.
3. Samples will be preserved for a period 15 days from the delivery of Test Report.
4. Test Results relate only to the conditions prevailing at the time of sampling
5. Customer complaint register is available at laboratory.
6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	12/12/2024	20/12/2025
2	Fine Particulate Sampler - Sr. No. 1372-J-23	19/12/2024	18/12/2025
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	04/08/2025	03/11/2025
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1183	Test Report Date	28/10/2025
Customer Name and Address	M/s. VEDANTA LIMITED IRON AND COKE PLANTS, AMONA AND NAVELIM, BICHOLIM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	21/10/2025	Analysis Period	24/10/2025 To 28/10/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Mosque, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27 °C
Average Relative Humidity [%]	89 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	37.06	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	17.25	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	< 20	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	10.67	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.64	4.0 for 1 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.03	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	180.0 for 1 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 (Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	5.29	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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#### Note :

1. The results relate only to the samples tested
2. Test Report shall not be reproduced except in full, without written approval of the laboratory.
3. Samples will be preserved for a period 15 days from the delivery of Test Reports.
4. Test Results relate only to the conditions prevailing at the time of sampling
5. Customer complaint register is available at laboratory.
6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 722-J-23	12/12/2024	20/12/2025
2	Fine Particulate Sampler - Sr. No. 1372-J-23	19/12/2024	18/12/2025
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	04/08/2025	03/11/2025
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1369	Test Report Date	01/12/2025
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINES IRON AND COKE PLANTS, AMONA AND NAVELIM, BICHOLIM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	26/11/2025	Analysis Period	27/11/2025 To 01/12/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Siddhartha Caves, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30 °C
Average Relative Humidity [%]	75 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	39.85	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	20.27	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	8.71	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	11.10	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.68	4.0 for 1 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.05	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	180.0 for 1 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 (Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	4.17	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	12/12/2024	20/12/2025
2	Fine Particulate Sampler - Sr. No. 1372-J-23	19/12/2024	18/12/2025
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1370	Test Report Date	01/12/2025
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINES IRON AND COKE PLANTS, AMONA AND NAVELIM, BICHOLIM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	26/11/2025	Analysis Period	27/11/2025 To 01/12/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Mosque,Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30 °C
Average Relative Humidity [%]	75 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	38.34	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	19.44	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	9.04	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	11.50	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.69	4.0 for 1 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.05	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	180.0 for 1 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 (Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	0.11	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

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[JAGANNATH S. PARAB]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 722-J-23	12/12/2024	20/12/2025
2	Fine Particulate Sampler - Sr. No. 1372-J-23	19/12/2024	18/12/2025
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1505	Test Report Date	29/12/2025
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	24/12/2025	Analysis Period	25/12/2025 To 29/12/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Siddhartha Caves, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.5 °C
Average Relative Humidity [%]	56.7 %


### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	38.49	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	16.54	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	8.58	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	10.70	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.67	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.03	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 ( Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	3.05	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

  
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[JAGANNATH S. PARAB]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1370-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1506	Test Report Date	29/12/2025
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	24/12/2025	Analysis Period	25/12/2025 To 29/12/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Mosque,Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.4 °C
Average Relative Humidity [%]	56.7 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	39.53	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	18.37	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	9.25	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	11.77	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.76	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.02	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 ( Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	3.45	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 722-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1372-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GAVEN/26/0117	Test Report Date	27/01/2026
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	22/01/2026	Analysis Period	23/01/2026 To 27/01/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Siddhartha Caves, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29.3 °C
Average Relative Humidity [%]	59.3 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	39.73	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	20.11	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	8.36	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	10.96	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.69	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.04	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 (Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	0.86	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1370-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0118	Test Report Date	27/01/2026
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	22/01/2026	Analysis Period	23/01/2026 To 27/01/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Mosque,Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	28.9 °C
Average Relative Humidity [%]	56.7 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	40.67	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	20.84	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	9.03	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	12.03	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.72	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.04	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 ( Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	1.15	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 722-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1372-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/11/2025	02/02/2026
6	ICP – OES , Thermo-fisher	11/08/2025	10/02/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0275	Test Report Date	02/03/2026
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	25/02/2026	Analysis Period	25/02/2026 To 02/03/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Siddhartha Caves, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29.3 °C
Average Relative Humidity [%]	66 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	40.37	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	20.29	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	8.50	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	10.56	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.71	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.03	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 (Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	4.52	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1370-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0276	Test Report Date	02/03/2026
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	25/02/2026	Analysis Period	25/02/2026 To 02/03/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Mosquè,Suria
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	27.5°C
Average Relative Humidity [%]	69 %


### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	41.52	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	21.13	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	9.38	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	12.27	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.76	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.03	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 ( Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	6.44	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 722-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1372-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0393	Test Report Date	24/03/2026
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	20/03/2026	Analysis Period	20/03/2026 To 24/03/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Siddhartha Caves, Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	32.6 °C
Average Relative Humidity [%]	63 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	51.44	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	22.62	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	8.94	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	11.05	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.73	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.07	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 ( Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	6.56	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1370-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0394	Test Report Date	24/03/2026
Customer Name and Address	M/s. VEDANTA LIMITED.VALUE ADDED BUSINESS, AMONA AND NAVELIM,BICHOLIMM – GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	20/03/2026	Analysis Period	20/03/2026 To 24/03/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Near Mosque,Surla
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	32.5°C
Average Relative Humidity [%]	61 %

### ANALYSIS REPORT :-

Parameters	Unit	Results	*N.A.A.Q.S.	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	53.86	100.0	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	23.25	60.0	IS 5182 (Part XXIV) 2019
SO <sub>2</sub>	µg/m <sup>3</sup>	9.81	80.0	IS 5182 (Part II) 2001
NO <sub>2</sub>	µg/m <sup>3</sup>	12.52	80.0	IS 5182 (Part VI) 2006
CO	mg/m <sup>3</sup>	0.77	2.0 for 8 Hrs.	IS 5182 (Part X) 1999
Lead	µg/m <sup>3</sup>	0.05	1.0	IS 5182 (Part XXII) 2004
Ozone	µg/m <sup>3</sup>	< 20	100.0 for 8 Hrs.	IS 5182 (Part IX) 2019
Ammonia	µg/m <sup>3</sup>	< 20	400.0	IS 5182 ( Part XXV) 2018
Benzene	µg/m <sup>3</sup>	< 1.0	5.0**	IS 5182 (Part XI) 2006
Benzo Pyrene	ng/m <sup>3</sup>	< 0.5	1.0**	IS 5182 (Part XII ):2004
Arsenic	ng/m <sup>3</sup>	< 0.4	6.0**	IS 5182 (Part XXII ):2004
Nickel	ng/m <sup>3</sup>	5.76	20.0**	IS 5182 (Part XXI):2020

\*N.A.A.Q.S. – National Ambient Air Quality Standards.

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 722-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1372-J-23	25/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	09/02/2026	08/08/2026

**Annexure XI**  
**River water quality analysis report**



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/EN/25/0968	Test Report Date:	01/11/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/EN/25/0968	Page No.	1 of 1
Sampling Done On	GLPL On 27/10/2025	Sample Received on	28/10/2025
Sample Collected By	GLPL	Analysis Period	28/10/2025 To 01/11/2025
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.73	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.4	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.5	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	920	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	04/08/2025	03/11/2025



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/0969	Test Report Date:	01/11/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/0969	Page No.	1 of 1
Sampling Done On	GLPL On 27/10/2025	Sample Received on	28/10/2025
Sample Collected By	GLPL	Analysis Period	28/10/2025To 01/11/2025
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.68	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.6	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.0	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	350	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	04/08/2025	03/11/2025



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/0945	Test Report Date:	18/10/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/0945	Page No.	1 of 1
Sampling Done On	GLPL On 13/10/2025	Sample Received on	14/10/2025
Sample Collected By	GLPL	Analysis Period	14/10/2025 To 18/10/2025
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.88	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.6	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	10.1	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	540	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	04/08/2025	03/11/2025



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/0946	Test Report Date:	18/10/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/0946	Page No.	1 of 1
Sampling Done On	GLPL On 13/10/2025	Sample Received on	14/10/2025
Sample Collected By	GLPL	Analysis Period	14/10/2025 To 18/10/2025
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.81	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.8	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.7	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	280	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SANJIV V. RAJADHYAKSHA]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	04/08/2025	03/11/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
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OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc. No: GLPL/QF/7.8/01


Test Report No.	GW/VEN/25/1032	Test Report Date:	02/12/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1032	Page No.	1 of 1
Sampling Done On	GLPL On 25/11/2025	Sample Received on	26/11/2025
Sample Collected By	GLPL	Analysis Period	26/11/2025 To 02/12/2025
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	7.01	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.2	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	8.4	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	430	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/1033	Test Report Date:	02/12/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1033	Page No.	1 of 1
Sampling Done On	GLPL On 25/11/2025	Sample Received on	25/11/2025
Sample Collected By	GLPL	Analysis Period	25/11/2025 To 02/12/2025
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.88	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.6	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.6	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	1600	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01


Test Report No.	GW/VEN/25/1026	Test Report Date:	24/11/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1026	Page No.	1 of 1
Sampling Done On	GLPL On 18/11/2025	Sample Received on	18/11/2025
Sample Collected By	GLPL	Analysis Period	19/11/2025 To 24/11/2025
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.89	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.6	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.1	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	540	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01


Test Report No.	GW/VEN/25/1027	Test Report Date:	24/11/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1027	Page No.	1 of 1
Sampling Done On	GLPL On 18/11/2025	Sample Received on	18/11/2025
Sample Collected By	GLPL	Analysis Period	19/11/2025 To 24/11/2025
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.72	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.8	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.8	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	280	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/1056	Test Report Date:	18/12/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1056	Page No.	1 of 1
Sampling Done On	GLPL On 12/12/2025	Sample Received on	13/12/2025
Sample Collected By	GLPL	Analysis Period	13/12/2025 To 18/12/2025
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	6.97	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.3	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	8.9	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	350	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SANJIV V. RAJADHYAKSHA]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/1057	Test Report Date:	18/12/2025
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1057	Page No.	1 of 1
Sampling Done On	GLPL On 12/12/2025	Sample Received on	13/12/2025
Sample Collected By	GLPL	Analysis Period	13/12/2025 To 18/12/2025
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	6.84	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.0	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.8	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	540	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SANJIV V. RAJADHYAKSHA]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/25/1078	Test Report Date:	05/01/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/25/1078	Page No.	1 of 1
Sampling Done On	GLPL On 30/12/2025	Sample Received on	31/12/2025
Sample Collected By	GLPL	Analysis Period	31/12/2025 To 05/01/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.74	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	3.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.8	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.2	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	920	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SANJIV V. RAJADHYAKSHA]

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Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc. No: GLPL/QF/7.8/01

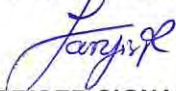
Test Report No.	GW/VEN/26/0035	Test Report Date:	02/02/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0035	Page No.	1 of 1
Sampling Done On	GLPL On 27/01/2026	Sample Received on	28/01/2026
Sample Collected By	GLPL	Analysis Period	28/01/2026 To 02/02/2026
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.75	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	6.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.8	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.0	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	350	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0036	Test Report Date:	02/02/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0036	Page No.	1 of 1
Sampling Done On	GLPL On 27/01/2026	Sample Received on	28/01/2026
Sample Collected By	GLPL	Analysis Period	28/01/2026 To 02/02/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.82	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.2	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.6	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	540	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0001	Test Report Date:	19/01/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0001	Page No.	1 of 1
Sampling Done On	GLPL On 13/01/2026	Sample Received on	14/01/2026
Sample Collected By	GLPL	Analysis Period	14/01/2026 To 19/01/2026
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	6.80	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.2	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	4.8	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	540	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: -GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0002	Test Report Date:	19/01/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0002	Page No.	1 of 1
Sampling Done On	GLPL On 13/01/2026	Sample Received on	14/01/2026
Sample Collected By	GLPL	Analysis Period	14/01/2026 To 19/01/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	6.74	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.8	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	4.4	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	1600	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/11/2025	02/02/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01


Test Report No.	GW/VEN/26/0077	Test Report Date:	02/03/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED</b> <b>WASTE HEAT RECOVERY PLANT I &amp; II,</b> <b>COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177,</b> <b>44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF</b> <b>NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE,</b> <b>BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0077	Page No.	1 of 1
Sampling Done On	GLPL On 25/02/2026	Sample Received on	26/02/2026
Sample Collected By	GLPL	Analysis Period	26/02/2026 To 02/03/2026
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	6.84	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	3.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.4	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.6	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	350	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01


Test Report No.	GW/VEN/26/0078	Test Report Date:	02/03/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0078	Page No.	1 of 1
Sampling Done On	GLPL On 25/02/2026	Sample Received on	26/02/2026
Sample Collected By	GLPL	Analysis Period	26/02/2026 To 02/03/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	6.89	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.1	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.0	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	>1600	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0043	Test Report Date:	17/02/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp;74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0043	Page No.	1 of 1
Sampling Done On	GLPL On 12/02/2026	Sample Received on	13/02/2026
Sample Collected By	GLPL	Analysis Period	13/02/2026 To 17/02/2026
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.81	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	4.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.2	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.0	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	430	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0044	Test Report Date:	17/02/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0044	Page No.	1 of 1
Sampling Done On	GLPL On 12/02/2026	Sample Received on	13/02/2026
Sample Collected By	GLPL	Analysis Period	13/02/2026 To 17/02/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.94	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.0	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	5.2	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	920	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0137	Test Report Date:	01/04/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0137	Page No.	1 of 1
Sampling Done On	GLPL On 27/03/2026	Sample Received on	28/03/2026
Sample Collected By	GLPL	Analysis Period	28/03/2026 To 01/04/2026
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	7.22	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.8	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.4	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	220	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SANJIV V. RAJADHYAKSHA]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



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## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0138	Test Report Date:	01/04/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0138	Page No.	1 of 1
Sampling Done On	GLPL On 27/03/2026	Sample Received on	28/03/2026
Sample Collected By	GLPL	Analysis Period	28/03/2026 To 01/04/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH @ 25°C	---	7.06	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.0	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	5.6	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	430	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01

Test Report No.	GW/VEN/26/0093	Test Report Date:	20/03/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I &amp; II, COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0093	Page No.	1 of 1
Sampling Done On	GLPL On 14/03/2026	Sample Received on	16/03/2026
Sample Collected By	GLPL	Analysis Period	16/03/2026 To 20/03/2026
Sample Description	River Upstream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	7.09	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	4.6	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	7.0	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	280	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING AND ANALYSIS**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026



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## TEST REPORT

Doc. No: GLPL/QF/7.8/01


Test Report No.	GW/VEN/26/0094	Test Report Date:	20/03/2026
Customer Name and Address	<b>M/S. VEDANTA LIMITED</b> <b>WASTE HEAT RECOVERY PLANT I &amp; II,</b> <b>COKE OVEN PLANT I &amp; II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177,</b> <b>44,43/1, 43/2, 42/1 &amp; 74, SURVEY NO. 207 (PART) OF</b> <b>NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, &amp; 44/5 OF AMONA VILLAGE,</b> <b>BICHOLIM – GOA.</b>		
Letter Ref/Date	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Lab Reference No.	GW/VEN/26/0094	Page No.	1 of 1
Sampling Done On	GLPL On 14/03/2026	Sample Received on	16/03/2026
Sample Collected By	GLPL	Analysis Period	16/03/2026 To 20/03/2026
Sample Description	River Down Stream Water Sample, 1 lit in Plastic Bottle.		

### ANALYSIS REPORTS:

Parameters	Units	Test Result	Methods
pH	---	6.80	APHA 4500 H <sup>+</sup> B (24 <sup>th</sup> Edition)
BOD 3 days 27°C	mg/ltr	< 2.0	IS 3025 (Part 44)
Dissolved Oxygen	mg/ltr	5.2	APHA 4500 O C (24 <sup>th</sup> Edition)
Turbidity	NTU	6.2	APHA 2130 B (24 <sup>th</sup> Edition)
<b>BACTERIOLOGICAL TEST:</b>			
Fecal Coliform	MPN/100 ml	540	APHA 9221 E (24 <sup>th</sup> Edition)

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

  
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1	pH Meter	Inhouse Calibration Daily	
2	Analytical Weighing Balance	10/06/2025	09/06/2026
3	COD Digester 01	10/06/2025	09/06/2026
4	COD Digester 02	10/06/2025	09/06/2026
5	BOD Incubator	10/06/2025	09/06/2026
6	Oven	10/06/2025	09/06/2026
7	UV Visible Spectrophotometer	03/02/2026	02/05/2026

**Annexure XII**  
**Calibration reports**

**CALIBRATIONREPORT**

Customer: VedantaLtd,Amona, Goa  
Calibration Date: 11-12-2025  
AAQMSLocalStation:AAQMS-1

Thermo Scientific Gas Analyzer	Parameters		Analyzer Reading		Calibration Factor		Acceptable Zero/Span Drift
			Before	After	Before	After	
SO2Analyzer(43i) S/N-CM22177076	Zero	0.0PPB	0.449PPB	0.0PPB	BKG=30.6	BKG=29.8	±0.5%
	Span(Diluted)	200PPB	198PPB	200PPB	Co-efficient=0.915	Co-efficient=0.938	±0.5%
NOx Analyzer(42i) S/N-CM22177067	Zero	0.0PPB	0.90 PPB	0.0PPB	BKG=21.1	BKG=19.9	±0.5%
	Span(Diluted)	200PPB	186PPB	200PPB	Co-efficient=0.795	Co-efficient=0.789	±0.5%
CO Analyzer(48i) S/N-CM22217146	Zero	0.0PPM	0.288PPM	0.00 PPM	BKG=4.07	BKG=4.03	±0.5%
	Span(Diluted)	4.00 PPM	3.8PPM	4.00 PPM	Co-efficient=0.996	Co-efficient=0.998	±0.5%
<b>Thermo Scientific Dust Analyzer5028i</b>	<b>Dust Concentration(Foil Value)</b>			<b>Amplification Factor</b>			
PM 10 & 2.5S/N- CM22178009	Zero/Span Foil	1174µg		<b>Before</b>	<b>After</b>		
		1174µg		6879	6895		
PM 10 & 2.5S/N- CM22178009	Zero/Span Foil	1174µg		<b>Before</b>	<b>After</b>		
		1174µg		6891	6993		

Note:

1. Above analyzer splurged with instrument air before performing the calibration.
2. We have used Dynamic Gas calibrator 146i Make Thermo Scientific for diluting Span Gases.
3. All the Gas cylinders mentioned above are with a balance of N2.



Calibration Done By  
Uday Sampangi  
M/s Thermo Fisher

**CALIBRATIONREPORT**

Customer: Vedanta Ltd, Amona, Goa  
CalibrationDate:12-12-2025  
AAQMSLocalStation:AAQMS-2

Thermo Scientific Gas Analyzer	Parameters		Analyzer Reading		Calibration Factor		Acceptable Zero/Span Drift
			Before	After	Before	After	
SO2 Analyzer(43i) S/N-CM22177077	Zero	0.0PPB	0.415PPB	0.0PPB	BKG=24.1	BKG=23.9	±0.5%
	Span(Diluted)	200PPB	199PPB	200PPB	Co-efficient=0.729	Co-efficient=0.738	±0.5%
Nox Analyzer(42i) S/N-CM22177066	Zero	0.0PPB	0.89PPB	0.0PPB	BKG=20.6	BKG=20.9	±0.5%
	Span(Diluted)	200PPB	199PPB	200PPB	Co-efficient=0.621	Co-efficient=0.633	±0.5%
CO Analyzer(48i) S/NCM22217144	Zero	0.0PPM	0.156PPM	0.00PPM	BKG=4.00	BKG=4.02	±0.5%
	Span(Diluted)	4.00PPM	3.9PPM	4.00PPM	Co-efficient=0.919	Co-efficient=0.929	±0.5%
<b>Thermo Scientific Dust Analyzer5028i</b>	<b>Dust Concentration(Foil Value)</b>			<b>Amplification Factor</b>			
PM 10 & 2.5S/N- CM22268007	Zero/Span Foil				<b>Before</b>	<b>After</b>	
			1174µg		7230	7239	
	Zero/Span Foil				<b>Before</b>	<b>After</b>	
			1174µg		7159	7169	

Note:

- Above analyzers purged with instrument air before performing the calibration.
- We have used Dynamic Gas calibrator 146i Make Thermo Scientific for diluting Span Gases.
- All the Gas cylinders mentioned above are with a balance of N2.



Calibration Done By  
Uday Sampangi  
M/s Thermo Fisher

**CALIBRATIONREPORT**

Customer:VedantaLtd,Amona, Goa  
CalibrationDate:06-5-2025  
AAQMSLocalStation:AAQMS-3

ThermoScientificGas Analyzer	Parameters		AnalyzerReading		CalibrationFactor		AcceptableZero/SpanDrift
	GasConcentration		Before	After	Before	After	
SO2Analyzer(43i) S/N-CM21027146	Zero	0.0PPB	0.336PPB	0.0PPB	BKG=25.7	BKG=25.6	±0.5%
	Span(Diluted)	200PPB	199PPB	200PPB	Co-efficient=0.977	Co-efficient=0.977	±0.5%
NoxAnalyzer(42i) S/N-CM21027098	Zero	0.0PPB	0.76 PPB	0.0PPB	BKG=21.1	BKG=21.4	±0.5%
	Span(Diluted)	200PPB	198PPB	200PPB	Co-efficient=0.788	Co-efficient=0.782	±0.5%
COAnalyzer(48i)S /N-CM21027187	Zero	0.0PPM	0.136PPM	0.00 PPM	BKG=4.98	BKG=4.95	±0.5%
	Span(Diluted)	4.00 PPM	3.9PPM	4.00 PPM	Co-efficient=0.911	Co-efficient=0.911	±0.5%
<b>ThermoScientificDust Analyzer5028i</b>	<b>DustConcentration(Foil Value)</b>			<b>AmplificationFactor</b>			
PM 10 & 2.5S/N- CM21041001	Zero/SpanFoil	1174µg		<b>Before</b>	<b>After</b>		
				7169	7175		
	Zero/SpanFoil	1174µg		<b>Before</b>	<b>After</b>		
				7011	7019		

Note:

- 1.Aboveanalyzerspurgedwithinstrumentairbeforeperformingthecalibration.
- 2.We haveusedDynamicGasibrator146iMakeThermoScientificfordilutingSpanGases.
- 3.AlltheGascylindersmentionedabovearewithabalanceof N2.

CalibrationDoneBy  
SandeepSingh  
M/sThermoFisher



**CALIBRATIONREPORT**

Customer : Vedanta Ltd, Amona Goa  
Calibration Date:12-12-2025  
AAQMS Local Station : AAQMS-4

Thermo Scientific Gas Analyzer	Parameters		Analyzer Reading		Calibration Factor	Calibration Factor	Acceptable Zero/Span Drift
	Gas Concentration		Before	After	Before	After	
SO2 Analyzer(43i) S/N-CM22297046	Zero	0.0PPB	0.379PPB	0.0PPB	BKG=27.9	BKG=28.3	±0.5%
	Span(Diluted)	200PPB	196PPB	200PPB	Co-efficient=0.998	Co-efficient=0.999	±0.5%
Nox Analyzer(42i) S/N-CM22307034	Zero	0.0PPB	0.89PPB	0.0PPB	BKG=20.6	BKG=21.8	±0.5%
	Span(Diluted)	200PPB	198PPB	200PPB	Co-efficient=0.696	Co-efficient=0.699	±0.5%
CO Analyzer(48i) S/N-CM22307074	Zero	0.0PPM	0.111PPM	0.00PPM	BKG=4.01	BKG=4.85	±0.5%
	Span(Diluted)	4.00PPM	3.99PPM	4.00PPM	Co-efficient=0.941	Co-efficient=0.948	±0.5%
<b>Thermo Scientific Dust Analyzer5028i</b>	<b>Dust Concentration (Foil Value)</b>			<b>Amplification Factor</b>			
PM 10 & 2.5 S/N-CM22308013	Zero/Span Foil	1174µg		<b>Before</b>	<b>After</b>		
				6996	6994		
	Zero/Span Foil	1174µg		<b>Before</b>	<b>After</b>		
				7098	7093		

Note:

- Above analyzers purged with instrument air before performing the calibration.
- We have used Dynamic Gas calibrator 146i Make Thermo Scientific for diluting Span Gases.
- All the Gas cylinders mentioned above are with a balance of N2.



Calibration Done By  
Uday Sampangi  
M/s Thermo Fisher

**CALIBRATION RECORD**

Customer	M/S Vedanta Ltd.
Report Date	11/08/2025
Stack Name	Waste heat recovery power plant 1_Boiler 1
Sampling Time	10am to 11am
Sampling Date	07-08-2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306061

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.045
---------------------------	-------

Sampling result in mg/m3	8.6
Avg. OD	0.045
Calculation	8.6/0.045
Dust Coefficient	191



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

Customer	M/S Vedanta Ltd.
----------	------------------

**CALIBRATION RECORD**

Report Date	11/08/2025
Stack Name	Waste heat recovery power plant 1_Boiler 2
Sampling Time	12:30pm to 1:30pm
Sampling Date	07-08-2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306065

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.033
---------------------------	-------

Sampling result in mg/m3	6.7
Avg. OD	0.033
Calculation	6.7/0.033
Dust Coefficient	224



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

**CALIBRATION RECORD**

Customer	M/S Vedanta Ltd.
Report Date	11/08/2025
Stack Name	Waste heat recovery power plant 2_Boiler 1
Sampling Time	12:30pm to 1:30pm
Sampling Date	6-08-2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306068

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.0720
---------------------------	--------

Sampling result in mg/m3	3.4
Avg. OD	0.0720
Calculation	3.4/0.0720
Dust Coefficient	47.22



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

**CALIBRATION RECORD**

Customer	M/S Vedanta Ltd.
Report Date	11/08/2025
Stack Name	Waste heat recovery power plant 2_Boiler 2
Sampling Time	3pm to 4pm
Sampling Date	06-08-2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306060

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.029
---------------------------	-------

Sampling result in mg/m3	9.2
Avg. OD	0.029
Calculation	$9.2/0.029$
Dust Coefficient	317.24



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

**CALIBRATION RECORD**

Customer	M/S Vedanta Ltd.
Report Date	11/08/2025
Stack Name	Pig Iron division_HBS-1
Sampling Time	3:30pm to 4:30pm
Plant Load	98%
Sampling Date	08/08/2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306067

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.013
---------------------------	-------

Sampling result in mg/m <sup>3</sup>	2.4
Avg. OD	0.013
Calculation	2.4/0.013
Dust Coefficient	185



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

**CALIBRATION RECORD**

Customer	M/S Vedanta Ltd.
Report Date	18/08/2025
Stack Name	Pig Iron division _BF3 HBS
Sampling Time	12pm to 1pm
Plant Load	100%
Sampling Date	12-08-2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306064

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.011
---------------------------	-------

Sampling result in mg/m3	16.7
Avg. OD	0.011
Calculation	$16.7 / 0.011$
Dust Coefficient	1518



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

**CALIBRATION RECORD**

Customer	M/S Vedanta Ltd.
Date	18/08/2025
Stack Name	Sinter Plant _Tail End ESP
Sampling Time	3pm to 4pm
Plant Load	100%
Sampling Date	11/08/2025

Instrument	Dust Monitor
Model	DR 290
Serial Num.	1306062

Optical Density from dust monitor during sampling.

Optical Density (Average)	0.021
---------------------------	-------

Sampling result in mg/m3	26.8
Avg. OD	0.021
Calculation	26.8/0.021
Dust Coefficient	1276



Checked and confirmed by:

Swapnil Shirodkar

Horiba India Limited

**Annexure XIII**  
**Fugitive dust emission reports**



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1273	Test Report Date	13/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED ( PIG IRON PLANT) SURVEY NO. 30 (PART)41,42/1,27 (PART) AMONA, P.O. MARCELA, BICHOLIM - GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	08/11/2025	Analysis Period	10/11/2025 To 13/11/2025

### SAMPLING DETAILS - FUGITIVE EMISSION MONITORING :-

Sampling Location	Internal transportation road
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30
Average Relative Humidity [%]	54
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	183.4	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	82.6	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	22.5	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	23.3	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1060	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	< 0.1	<2	IS 5182 (Part XXII) 2004

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GAVEN/25/1274	Test Report Date	13/11/2025
Customer Name and Address	M/S. VEDANTA LIMITED ( MET COKE DIVISION-I) (WASTE HEAT RECOVERY POWER PLANT- I) SURVEY NO. 205,206,207,31/1,33 PART OF 177,44,43/1,43/2, & 42/1, &74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4 & 44/5 OF AMONA VILLAGE, BICHOLIM - GOA.		
Letter Ref / Date .	As per P.O. No.PO/2025/05/06288 (4920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	08/11/2025	Analysis Period	10/11/2025 To 13/11/2025

### SAMPLING DETAILS – FUGITIVE EMISSION MONITORING :-

Sampling Location	MCD New Coal Shed & Coke Yard
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30
Average Relative Humidity [%]	54
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	239.8	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	108.7	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	17.97	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.66	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1010	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	< 0.1	<2	IS 5182 (Part XXII) 2004

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GAVEN/25/1275	Test Report Date	13/11/2025
Customer Name and Address	M/S. VEDANTA LTD. VALUE ADDED BUSINESS, PIG IRON EXPANSION PLANT, SURVEY NO-61/1, 61/3, 62, 63(PART),120/1, 120/2(PART), 177(PART)205(PART), 206(PART), 207(PART), NAVELIM VILLAGE BICHOLIM GOA		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	08/11/2025	Analysis Period	10/11/2025 To 13/11/2025

### SAMPLING DETAILS - FUGITIVE EMISSION MONITORING :-

Sampling Location	Loading/Unloading jetty
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30
Average Relative Humidity [%]	54
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	169.4	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	94.6	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	21.2	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	24.5	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1120	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	< 0.1	<2	IS 5182 (Part XXII) 2004

End

For GADARKLAB PVT. LTD.

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[JAGANNATH S. PARAB]

  
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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/25/1276	Test Report Date	13/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED ( PIG IRON PLANT) SURVEY NO. 30 (PART)41,42/1,27 (PART) AMONA, P.O. MARCELA, BICHOLIM - GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	08/11/2025	Analysis Period	10/11/2025 To 13/11/2025

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Pig iron yard
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	30
Average Relative Humidity [%]	54
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits	Methods
			As Per Environmental (Protection) Rules 1986	
PM <sub>10</sub>	µg/m <sup>3</sup>	119.0	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	76.8	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	22.2	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	24.5	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1070	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	< 0.1	<2	IS 5182 (Part XXII) 2004

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0186	Test Report Date	11/02/2026
Customer Name and Address	M/S. VEDANTA LTD. VALUE ADDED BUSINES, PIG IRON EXPANSION PLANT, SURVEY NO-61/1, 61/3, 62, 63(PART),120/1, 120/2(PART), 177(PART)205(PART), 206(PART), 207(PART), NAVELIM VILLAGE BICHOLIM GOA		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	07/02/2026	Analysis Period	07/02/2026 To 11/02/2026

### SAMPLING DETAILS - FUGITIVE EMISSION MONITORING :-

Sampling Location	Loading/Unloading jetty
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29°C
Average Relative Humidity [%]	66%
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	178.28	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	102.54	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	21.59	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	23.51	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1044	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	0.20	<2	IS 5182 (Part XXII) 2004

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 686-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1365-J-23	26/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0185	Test Report Date	11/02/2026
Customer Name and Address	M/S. VEDANTA LIMITED ( MET COKE DIVISION-I) (WASTE HEAT RECOVERY POWER PLANT- I) SURVEY NO. 205,206,207,31/1,33 PART OF 177,44,43/1,43/2, & 42/1, &74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4 & 44/5 OF AMONA VILLAGE, BICHOLIM - GOA.		
Letter Ref / Date .	As per P.O. No.PO/2025/05/06288 (4920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	07/02/2026	Analysis Period	07/02/2026 To 11/02/2026

### SAMPLING DETAILS – FUGITIVE EMISSION MONITORING :-

Sampling Location	MCD New Coal Shed & Coke Yard
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29°C
Average Relative Humidity [%]	67%
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	197.37	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	95.68	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	19.30	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	22.80	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1057	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	0.18	<2	IS 5182 (Part XXII) 2004

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No. 721-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No. 1372-J-23	24/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GAVEN/26/0187	Test Report Date	11/02/2026
Customer Name and Address	M/s. VEDANTA LIMITED ( PIG IRON PLANT) SURVEY NO. 30 (PART)41,42/1,27 (PART) AMONA, P.O. MARCELA, BICHOLIM - GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	07/02/2026	Analysis Period	07/02/2026 To 11/02/2026

### SAMPLING DETAILS - AMBIENT AIR MONITORING :-

Sampling Location	Pig iron yard
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	270C
Average Relative Humidity [%]	68%
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM10	µg/m <sup>3</sup>	148.46	< 4000	IS 5182 (Part XXIII) 2006
PM2.5	µg/m <sup>3</sup>	72.36	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	22.89	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	25.29	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1081	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	0.11	<2	IS 5182 (Part XXII) 2004

End

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[JAGANNATH S. PARAB]**

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Sr. No.</b>	<b>Instrument Type</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
1	Respirable Dust Sample - Sr. No. 684-J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No.1358-J-23	26/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	Inhouse Calibration	



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## TEST REPORT

Doc.No : GLPL/QF/7.8/03

Test Report No.	GA/VEN/26/0184	Test Report Date	11/02/2026
Customer Name and Address	M/s. VEDANTA LIMITED ( PIG IRON PLANT) SURVEY NO. 30 (PART)41,42/1,27 (PART) AMONA, P.O. MARCELA, BICHOLIM - GOA.		
Letter Ref / Date .	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	07/02/2026	Analysis Period	07/02/2026 To 11/02/2026

### SAMPLING DETAILS - FUGITIVE EMISSION MONITORING :-

Sampling Location	Internal transportation road
Duration of Sampling [Hrs]	24
Average Ambient Temperature [°C]	29°C
Average Relative Humidity [%]	63%
Lateral Distance	3 mtr

### ANALYSIS REPORT :-

Parameters	Unit	Results	Limits As Per Environmental (Protection) Rules 1986	Methods
PM <sub>10</sub>	µg/m <sup>3</sup>	176.36	< 4000	IS 5182 (Part XXIII) 2006
PM <sub>2.5</sub>	µg/m <sup>3</sup>	69.49	-	IS 5182 (Part XXIV) 2019
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	23.88	<200	IS 5182 (Part II) 2001
Oxides of Nitrogen (NO <sub>2</sub> )	µg/m <sup>3</sup>	23.86	<150	IS 5182 (Part VI) 2006
Carbon Monoxide (CO)	µg/m <sup>3</sup>	1094	< 5000 (8 hrs. Average)	IS 5182 (Part X) 1999
Lead (Pb)	µg/m <sup>3</sup>	0.16	<2	IS 5182 (Part XXII) 2004

End

For GADARK LAB PVT. LTD.

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5. Customer complaint register is available at laboratory.
6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Respirable Dust Sample - Sr. No.685 -J-23	26/12/2025	25/12/2026
2	Fine Particulate Sampler - Sr. No.1359 -J-23	26/12/2025	24/12/2026
3	Analytical Balance ( GL/E/BAL/02)	10/06/2025	09/06/2026
4	Gas Chromatograph – Model Thermo-Fisher, Trace 1110	10/05/2025	09/05/2026
5	UV Spectrophotometer Model – UV - 3092, ID No. GL/EQ/UV2	03/02/2026	02/05/2026
6	ICP – OES , Thermo-fisher	Inhouse Calibration	

**Annexure XIV**  
**Pre and Post monsoon ground water quality analysis**

**Annexure III**  
**Pre and post monsoon ground water monitoring reports**

**Annexure XIX**  
**Efficiency monitoring reports**

## SUMMARY OF EFFICIENCY MONITORING

Sr. No	Name of stack location
1	Blast furnace 1 Bag House
2	Blast furnace 2 bag House
3	LDC Bag House
4	Blast furnace 3 Stock House Baghouse
5	Blast furnace 3 Cast House Baghouse
6	Sinter Tail ESP
7	Sinter Screening Dedusting
8	Sinter Proportioning Dedusting
9	Sinter Head End ESP
10	Sinter Flux and fuel Dedusting
11	Metcoke division ST1 Bag House
12	Metcoke division ST2 Bag House
13	Metcoke division ST3 Bag House
14	Battery 1 Bag house for coke screening plant
15	Ferrosilicon Bag filter for Submerged Arc Furnace







# GADARK LAB PVT. LTD.

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1256	Test Report Date	10/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	06/11/2025	Analysis Period	07/11/2025 To 10/11/2025

#### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	BF 2 Baghouse		
Date of Sample collection	06/11/2025		
Sample Details	Inlet Sample	Outlet Sample-1	Outlet Sample-2
Stack Diameter [Meter]	1.83	2.0	2.0
Height From Ground Level [Meter]	NA	30.0	30.0
Shape	Round	Round	Round
Temperature of flue gas [°C]	51	48	48
Average flue gas velocity [m/s]	12.1	9.7	9.8
Average volume of flue gas discharged [m <sup>3</sup> /hr]	114303	109888	110341
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	105131	102015	102435

#### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet Sample	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	472.2	3.2	4.1	3.65	99.23	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

  
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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1250	Test Report Date	08/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	04/11/2025	Analysis Period	05/11/2025 To 08/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	LDC Baghouse		
Date of Sample collection	04/11/2025		
Sample Details	Inlet	Outlet-1	Outlet-2
Stack Diameter [Meter]	1.35	1.4	1.4
Height From Ground Level [Meter]	NA	21	21
Shape	Round	Round	Round
Temperature of flue gas [°C]	54	52	52
Average flue gas velocity [m/s]	5.2	4.7	4.7
Average volume of flue gas discharged [m <sup>3</sup> /hr]	26786	26036	26036
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	24411	23873	23873

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	395.7	5.8	5.1	5.45	98.65	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1321	Test Report Date	17/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref./Date	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	14/11/2025	Analysis Period	14/11/2025 To 17/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Stock House Dedusting Stack		
Date of Sample collection	13/11/2025		
Sample Details	Inlet sample	Outlet Sample -1	Outlet Sample -2
Stack Diameter [Meter]	2.8	2.8	2.8
Height From Ground Level [Meter]	NA	30.0	30.0
Shape	Round	Round	Round
Temperature of flue gas [°C]	55	53	53
Average flue gas velocity [m/s]	7.1	7.0	7.0
Average volume of flue gas discharged [m <sup>3</sup> /hr]	156797	154303	154303
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	142456	141050	141050

### ANALYSIS REPORT :

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	1548	12.2	12.8	12.5	99.19	IS 11255 (Part I) 1985

End

For GADARK LAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1323	Test Report Date	18/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	15/11/2025	Analysis Period	15/11/2025 To 18/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Cast House		
Date of Sample collection	14/11/2025		
Sample Details	Inlet Sample	Outlet Sample-1	Outlet Sample-2
Stack Diameter [Meter]	2.8	2.8	2.8
Height From Ground Level [Meter]	NA	30.0	30.0
Shape	Round	Round	Round
Temperature of flue gas [°C]	52	50	50
Average flue gas velocity [m/s]	8.6	8.5	8.5
Average volume of flue gas discharged [m <sup>3</sup> /hr]	191327	188112	188112
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	175432	173552	173552

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet Sample	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	405.8	5.8	7.2	6.5	98.40	IS 11255 (Part I) 1985

End

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1291	Test Report Date	15/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	12/11/2025	Analysis Period	12/11/2025 To 15/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Tail End ESP		
	11/11/2025		
Date of Sample collection	Inlet Sample	Outlet Sample-1	Outlet Sample-2
Sample Details			
Stack Diameter [Meter]	2.7	2.7	2.7
Height From Ground Level [Meter]	NA	30	30
Shape	Round	Round	Round
Temperature of flue gas [°C]	98	89	89
Average flue gas velocity [m/s]	13.1	12.6	12.6
Average volume of flue gas discharged [m <sup>3</sup> /hr]	270361	259332	259332
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	217164	213484	213484

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet Sample	Outlet sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	610.7	4.5	6.0	5.25	99.14	IS 11255 (Part I) 1985

End

For GADARK LAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GAVEN/25/1293	Test Report Date	15/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	12/11/2025	Analysis Period	12/11/2025 To 15/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Screening De-dusting		
	Inlet	Outlet-1	Outlet-2
Date of Sample collection	11/11/2025		
Sample Details	Inlet	Outlet-1	Outlet-2
Stack Diameter [Meter]	2.5	2.5	2.5
Height From Ground Level [Meter]	NA	30.0	30.0
Shape	Round	Round	Round
Temperature of flue gas [°C]	110	104	104
Average flue gas velocity [m/s]	6.4	6.2	6.2
Average volume of flue gas discharged [m <sup>3</sup> /hr]	113289	109754	109754
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	88146	86755	86755

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet Sample	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	388.0	6.0	6.5	6.25	98.39	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1297	Test Report Date	17/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	13/11/2025	Analysis Period	13/11/2025 To 17/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Proportioning De-dusting		
	12/11/2025		
Date of Sample collection	Inlet Sample	Outlet Sample-1	Outlet Sample-2
Sample Details			
Stack Diameter [Meter]	2.5	2.5	2.5
Height From Ground Level [Meter]	NA	30	30
Shape	Round	Round	Round
Temperature of flue gas [°C]	63	56	56
Average flue gas velocity [m/s]	9.9	9.7	9.7
Average volume of flue gas discharged [m <sup>3</sup> /hr]	175633	171082	171082
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	155770	154962	154962

### ANALYSIS REPORT:

Parameters	Unit	Results			Outlet (Average)	Operating Efficiency %	Methods
		Inlet Sample	Outlet Sample-1	Outlet Sample-2			
TPM / SPM	mg/Nm <sup>3</sup>	1127.4	15.8	18.8	17.3	98.48	IS 11255 (Part I) 1985

End

For GADARK LAB PVT. LTD.

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### TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1317	Test Report Date	17/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	14/11/2025	Analysis Period	14/11/2025 To 17/11/2025

#### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Head End ESP		
Date of Sample collection	13/11/2025		
Sample Details	Inlet sample	Outlet Sample -1	Outlet Sample -2
Stack Diameter [Meter]	3.2	6.8	6.8
Height From Ground Level [Meter]	NA	100	100
Shape	Round	Round	Round
Temperature of flue gas [°C]	177	149	149
Average flue gas velocity [m/s]	23.5	4.8	4.7
Average volume of flue gas discharged [m <sup>3</sup> /hr]	680192	630251	615868
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	450438	445059	434902

#### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet Sample	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	1636.9	14.2	21.8	21.5	99.12	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GAVEN/25/1319	Test Report Date	17/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	14/11/2025	Analysis Period	14/11/2025 To 17/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Flux & Fuel De - dusting		
Date of Sample collection	13/11/2025		
Sample Details	Inlet sample	Outlet Sample -1	Outlet Sample -2
Stack Diameter [Meter]	1.62	1.62	1.62
Height From Ground Level [Meter]	NA	30.0	30.0
Shape	Round	Round	Round
Temperature of flue gas [°C]	57	55	55
Average flue gas velocity [m/s]	7.1	7.0	7.0
Average volume of flue gas discharged [m <sup>3</sup> /hr]	52802	52134	52134
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	47682	47366	47366

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	692.8	11.9	12.5	12.20	98.24	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1253	Test Report Date	08/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	06/11/2025	Analysis Period	06/11/2025 To 08/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Battery 2 St 01		
Date of Sample collection	06/11/2025		
Sample Details	Inlet	Outlet Sample-1	Outlet Sample-2
Stack Diameter [Meter]	0.9	0.8	0.8
Height From Ground Level [Meter]	NA	16.5	16.5
Shape	Round	Round	Round
Temperature of flue gas [°C]	48	45	45
Average flue gas velocity [m/s]	10.3	12.6	12.6
Average volume of flue gas discharged [m <sup>3</sup> /hr]	23756	22858	22885
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	22054	21420	21446

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	282.5	4.5	5.5	5.0	98.20	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

  
CHECKED BY

#### Note :

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1254	Test Report Date	08/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	06/11/2025	Analysis Period	06/11/2025 To 08/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Battery 2 St 02		
Date of Sample collection	06/11/2025		
Sample Details	Inlet	Outlet Sample-1	Outlet Sample-2
Stack Diameter [Meter]	1.02	1.1	1.1
Height From Ground Level [Meter]	NA	16.5	16.5
Shape	Round	Round	Round
Temperature of flue gas [°C]	44	42	42
Average flue gas velocity [m/s]	12.7	10.6	10.5
Average volume of flue gas discharged [m <sup>3</sup> /hr]	37496	36201	36090
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	35249	34247	34142

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	314.6	4.2	4.5	4.35	98.66	IS 11255 (Part I) 1985

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

  
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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1255	Test Report Date	08/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref.	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	06/11/2025	Analysis Period	06/11/2025 To 08/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Battery 2 St 03		
Date of Sample collection	06/11/2025		
Sample Details	Inlet	Outlet Sample-1	Outlet Sample-2
Stack Diameter [Meter]	0.78	0.8	0.8
Height From Ground Level [Meter]	NA	16.5	16.5
Shape	Round	Round	Round
Temperature of flue gas [°C]	42	40	40
Average flue gas velocity [m/s]	12.7	12.6	12.6
Average volume of flue gas discharged [m <sup>3</sup> /hr]	22993	22722	22722
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	21752	21633	21633

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	654.2	7.0	6.5	6.75	98.97	IS 11255 (Part I) 1985

End

For GADARK LAB PVT. LTD.

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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1252	Test Report Date	10/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref./Date	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	05/11/2025	Analysis Period	06/11/2025 To 10/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	CSP 1		
Date of Sample collection	05/11/2025		
Sample Details	Inlet	Outlet Sample- 1	Outlet Sample- 2
Stack Diameter [Meter]	1.25	1.25	
Height From Ground Level [Meter]	16.5	16.5	16.5
Shape	Round	Round	Round
Temperature of flue gas [°C]	51	49	49
Average flue gas velocity [m/s]	12.9	12.7	12.7
Average volume of flue gas discharged [m <sup>3</sup> /hr]	56932	56225	56225
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	52363	52034	52034

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet	Outlet Sample- 1	Outlet Sample- 2	Average (Outlet)		
TPM / SPM	mg/Nm <sup>3</sup>	311.8	4.6	4.2	4.4	98.58	IS 11255 (Part I) 1985

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[JAGANNATH S. PARAB]

  
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## TEST REPORT

Doc.No : GLPL/QF/7.8/02

Test Report No.	GA/VEN/25/1295	Test Report Date	15/11/2025
Customer Name and Address	M/s. VEDANTA LIMITED, VALUE ADDED BUSINESS AMONA, NAVELIM, BICHOLIM – GOA.		
Letter Ref./Date	As per P.O. No. PO/2025/11/07103 (4920080715) 01/11/2025		
Sampling Done By	GLPL	Page No.	1 of 1
Sample Received on	13/11/2025	Analysis Period	13/11/2025 To 15/11/2025

### SAMPLING DETAILS - STACK EMISSION (EFFICIENCY)

Stack Attached to	Fesi Baghouse		
Date of Sample collection	12/11/2025		
Sample Details	Inlet Sample	Outlet Sample-1	Outlet Sample-2
Stack Diameter [Meter]	1.80	1.80	1.80
Height From Ground Level [Meter]	NA	30.0	30.0
Shape	Round	Round	Round
Temperature of flue gas [°C]	264	115	115
Average flue gas velocity [m/s]	18.2	13.0	13.0
Average volume of flue gas discharged [m <sup>3</sup> /hr]	166292	119244	119244
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	92281	91585	91585

### ANALYSIS REPORT:

Parameters	Unit	Results				Operating Efficiency %	Methods
		Inlet Sample	Outlet Sample-1	Outlet Sample-2	Average (Outlet)		
TPM/SPM	mg/Nm <sup>3</sup>	542.5	4.8	5.7	5.25	99.03	IS 11255 (Part I) 1985

End

For GADARKLAB PVT. LTD.

AUTHORISED SIGNATORY  
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**Annexure XV**  
**Noise monitoring reports**



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Doc.No : GLPL/QF/7.8/04

Test Report No.	GA/VEN/25/1389	Test Report Date	01/12/2025
Customer Name and Address	M/S. VEDANTA LTD. VALUE ADDED BUSINES, PIG IRON EXPANSION PLANT, SURVEY NO-61/1, 61/3, 62, 63(PART),120/1, 120/2(PART), 177(PART)205(PART), 206(PART), 207(PART), NAVELIM VILLAGE BICHOLIM GOA		
Letter Ref / Date.	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Measurement Done By	GLPL	Page No.	1 of 1

### NOISE LEVEL MEASUREMENT :

Date of Measurement	27/11/2025
---------------------	------------

Sr. No.	LOCATION	NOISE LEVEL dB (A) Leq	
		DAY TIME AVG.	NIGHT TIME AVG.
01	Near Sateri temple	65.2	55.0
02	Compound wall towards maina	60.1	48.2

Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SANJIV V. RAJADHYAKSHA]

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Sound Level Meter Sr. No. 191207632	14/05/2025	13/05/2026



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### TEST REPORT

Doc.No : GLPL/QF/7.8/04

Test Report No.	GA/VEN/25/1390	Test Report Date	01/12/2025
Customer Name and Address	M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I & II, COKE OVEN PLANT I & II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, & 44/5 OF AMONA VILLAGE, BICHOLIM – GOA.		
Letter Ref / Date.	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Measurement Done By	GLPL	Page No.	1 of 1

#### NOISE LEVEL MEASUREMENT :

Date of Measurement	27/11/2025
---------------------	------------


Sr. No.	LOCATION	NOISE LEVEL dB (A) Leq	
		DAY TIME AVG.	NIGHT TIME AVG.
01	WHRPP1-Old (GEPL) gate.	67.0	56.4
02	Compound wall towards navelim	61.3	48.9

Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Sound Level Meter Sr. No. 191207632	14/05/2025	13/05/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/04

Test Report No.	GA/VEN/25/1388	Test Report Date	01/12/2025
Customer Name and Address	M/S. VEDANTA LIMITED PIG IRON PLANT. SURVEY NOS. 29/1,31/1,27,39,41 44/3,42/1,54,56/17, AMONA,BICHOLIM-GOA		
Letter Ref / Date.	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Measurement Done By	GLPL	Page No.	1 of 1

### NOISE LEVEL MEASUREMENT :

Date of Measurement	27/11/2025
---------------------	------------

Sr. No.	LOCATION	NOISE LEVEL dB (A) Leq	
		DAY TIME AVG.	NIGHT TIME AVG.
01	Near Amona Gate	64.3	54.5
02	Opp. BSNL Exchange	53.2	44.9

Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Sound Level Meter Sr. No. 191207632	14/05/2025	13/05/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/04

Test Report No.	GA/VEN/26/0282	Test Report Date	26/02/2026
Customer Name and Address	M/S. VEDANTA LTD. VALUE ADDED BUSINES, PIG IRON EXPANSION PLANT, SURVEY NO-61/1, 61/3, 62, 63(PART),120/1, 120/2(PART), 177(PART)205(PART), 206(PART), 207(PART), NAVELIM VILLAGE BICHOLIM GOA		
Letter Ref / Date.	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Measurement Done By	GLPL	Page No.	1 of 1

### NOISE LEVEL MEASUREMENT :

Date of Measurement	24/02/2026
---------------------	------------

Sr. No.	LOCATION	NOISE LEVEL dB (A) Leq	
		DAY TIME AVG.	NIGHT TIME AVG.
01	Near Sateri temple	66.1	54.3
02	Compound wall towards maina	59.6	47.5

Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Sound Level Meter Sr. No. 191207632	14/05/2025	13/05/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/04

Test Report No.	GA/VEN/26/0283	Test Report Date	26/02/2026
Customer Name and Address	M/S. VEDANTA LIMITED WASTE HEAT RECOVERY PLANT I & II, COKE OVEN PLANT I & II SURVEY NO. 205, 206, 207, 31/1,33, PART OF 177, 44,43/1, 43/2, 42/1 &74, SURVEY NO. 207 (PART) OF NAVELIM VILLAGE AND SURVEY NO. 43/1, 44/4, & 44/5 OF AMONA VILLAGE, BICHOLIM - GOA.		
Letter Ref / Date.	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Measurement Done By	GLPL	Page No.	1 of 1

### NOISE LEVEL MEASUREMENT :

Date of Measurement	24/02/2026
---------------------	------------


Sr. No.	LOCATION	NOISE LEVEL dB (A) Leq	
		DAY TIME AVG.	NIGHT TIME AVG.
01	WHRPP1-Old (GEPL) gate.	66.8	57.6
02	Compound wall towards navelim	58.3	47.5


Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

End

For GADARK LAB PVT. LTD.

  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Sound Level Meter Sr. No. 191207632	14/05/2025	13/05/2026



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## TEST REPORT

Doc.No : GLPL/QF/7.8/04

Test Report No.	GA/VEN/26/0281	Test Report Date	26/02/2026
Customer Name and Address	M/S. VEDANTA LIMITED PIG IRON PLANT. SURVEY NOS. 29/1,31/1,27,39,41 44/3,42/1,54,56/17, AMONA,BICHOLIM-GOA		
Letter Ref / Date.	As per P.O. No. PO/2025/05/06288 (4920077644) date 07/05/2025.		
Measurement Done By	GLPL	Page No.	1 of 1

### NOISE LEVEL MEASUREMENT :

Date of Measurement	24/02/2026
---------------------	------------

Sr. No.	LOCATION	NOISE LEVEL dB (A) Leq	
		DAY TIME AVG.	NIGHT TIME AVG.
01	Near Amona Gate	65.7	55.2
02	Opp. BSNL Exchange	60.2	45.6

Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

End

For GADARK LAB PVT. LTD.

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CHECKED BY

#### Note :

1. The results relate only to the samples tested
2. Test Report shall not be reproduced except in full, without written approval of the laboratory.
3. Test Results relate only to the conditions prevailing at the time of sampling
4. Customer complaint register is available at laboratory.
6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Sr. No.	Instrument Type	Calibrated On	Calibration Due Date
1	Sound Level Meter Sr. No. 191207632	14/05/2025	13/05/2026

**Annexure XVI**  
**Solar power installation**

# 100KW Solar power installation



**Annexure XVII**  
**SUP free awareness sessions**



# GHG Emission Reduction Roadmap

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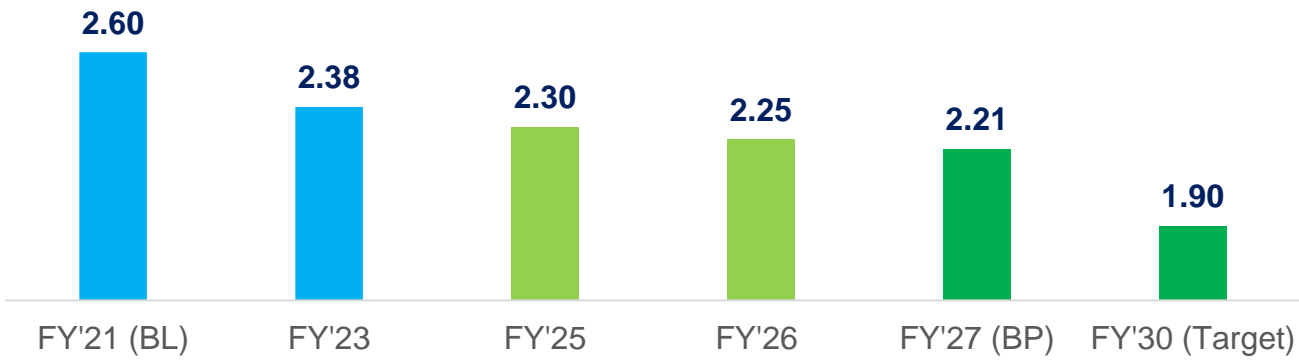
VEDANTARESOURCESLIMITED-OIL&GAS|ZINC&SILVER|POWER|ALUMINIUM|IRONORE|STEEL|COPPER

# GHG Emission Trend

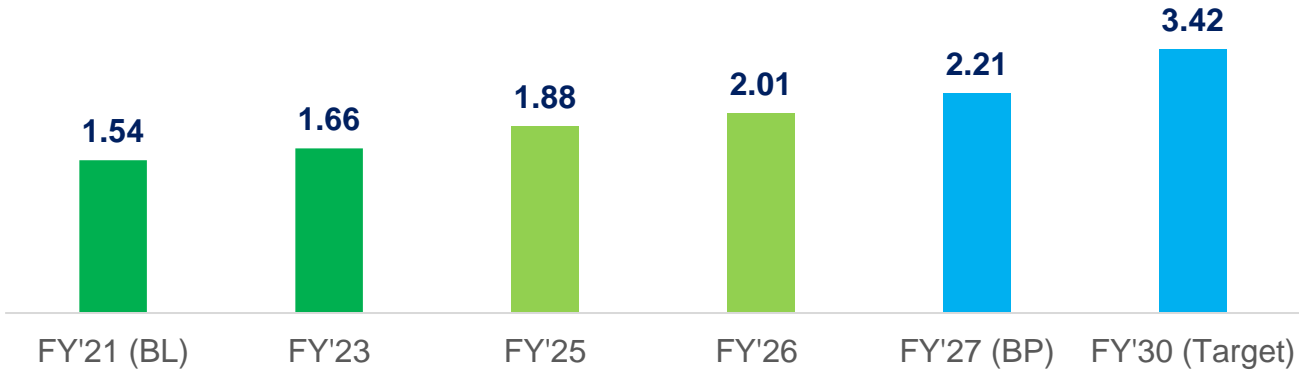


Key KPI's	Metric	FY'21 (BL)	FY'23	FY'25	FY'26	FY'27 (BP)	FY'30 (Target)
Production	Mn. T	0.59	0.70	0.82	0.895	1.00	1.80
GHG Intensity	TCO2e/ MT	2.60	2.38	2.30	2.25	2.21	1.90
Absolute Emissions	Mn. TCO2e	1.54	1.66	1.88	2.01	2.21	3.42

**Intensity (TCO2e/THM)**



**Absolute Emission (Mn TCO2e)**



**Performance from BL Year till FY'26**

- Production **increased by 52%**.
- GHG intensity **reduction by 13%**.
- Abs. emission **increase by 30%**

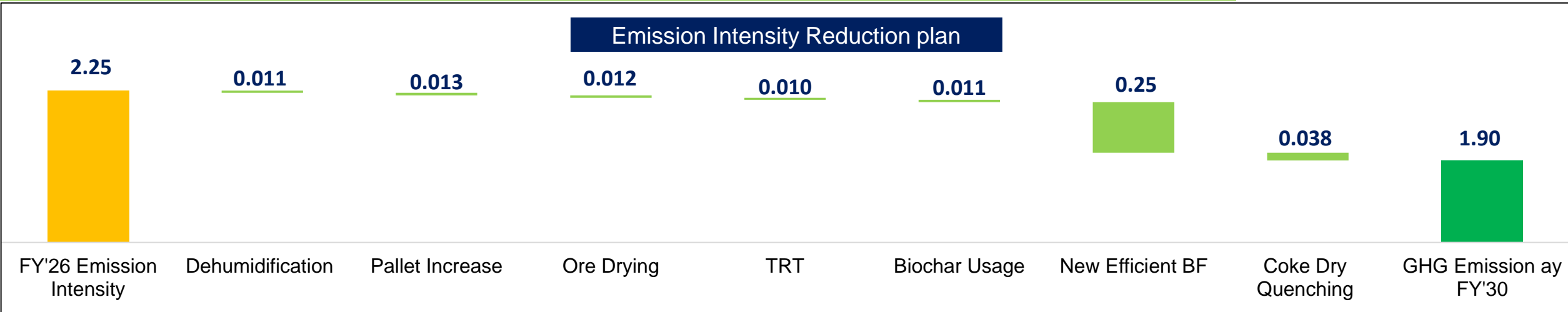
**Projections from BL Year till FY'30**

- Production **increase by around 200%(3 times)**.
- GHG intensity **to be reduced by 27%**
- Abs. emission **increase by 120%**

# GHG Emission Reduction Plan



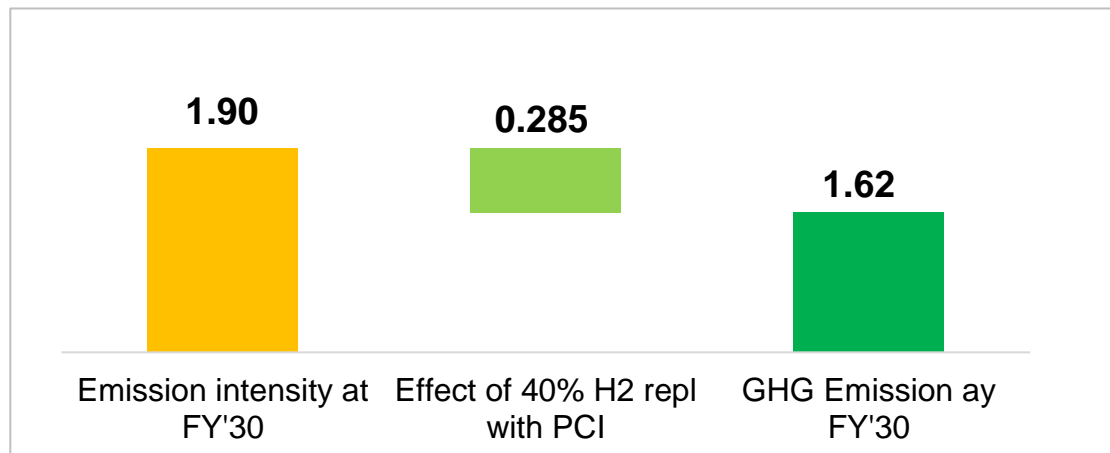
## Emission Intensity Reduction plan



S. No.	Project Description	Benefits	Estimated Investment	Implementation year
1	Dehumidification of Cold blast in blast furnace	Coke rate ↓ by 7-10 Kg/THM Blower Power ↓ 400 kW (~22000 T CO2e)	24 Cr	FY'28
2	Pallet increase to 30%	Coke rate ↓ by 7-10 Kg/THM (~26000 TCO2e)	OPEX	FY28-FY-30
3	Iron Ore Drying to reduce moisture content	Coke rate ↓ by 10-15 Kgs (~24000 TCO2e)	30 Cr	FY'27/28
4	Top Gas recovery Turbine for BF-3	Clean power Gen ~3 MW (18000 T CO2e)	20 Cr	FY'28
5	Replacing partial quantity of biochar with PCI	Emission ↓ by 1-5% (~22000 TCO2e)	OPEX	FY'28
6	New Efficient blast furnace in place of BF-1,2	Coke rate ↓ ~20% than existing PID-1 (~450000 T CO2e)	~	FY'29
7	Coke Dry Quenching for coke oven plant	3 MW power generation Coke moisture ↓ to 0.5-1%(~75000 TCO2 e)	~150Cr	FY'30

# Emissions with technology advancement

## Scenario 1



### Scenario 1 :

#### Injecting H2 in the BF from tuyere to replace 40% PCI

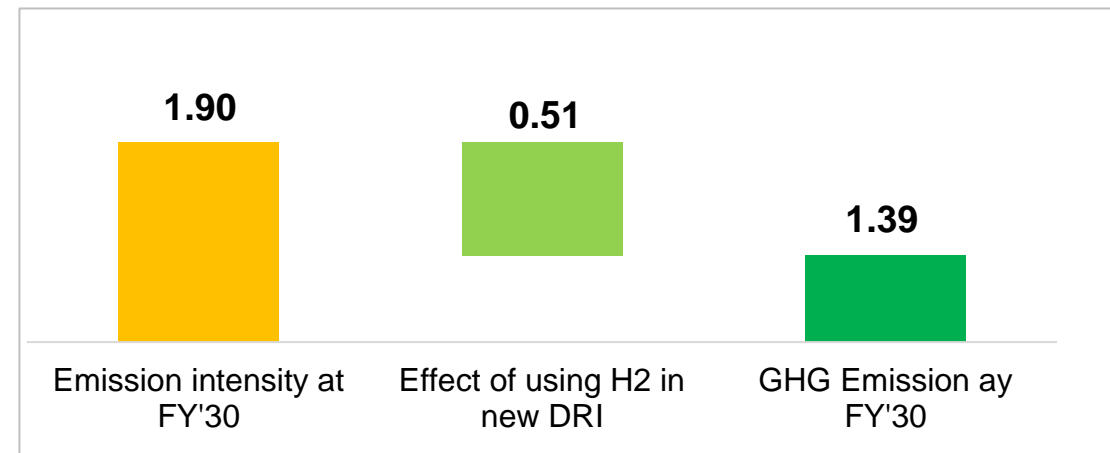
Considering fuel rate (TCBM)- 520 Kg/THM  
Coke+ Nut Coke- 300 Kg/THM  
PCI- 220 Kg/THM.

By replacing 40% of PCI with H2 around 90 Kg/THM PCI can be reduced.

15% further emission Intensity can be reduced.,

\*Commercially till now thyssenkrupp plant (Duisburg, Germany) has replaced around 40 kg/THM of PCI with 10-15 Kg/THM of H2

## Scenario 2



### Scenario 2:

#### New facility with DRI route

Commercially some DRI plant using 30-50% hydrogen, like Emirates Steel.

Considering using 50% hydrogen usage and remaining 50% other reducing gases (reforming NG).

This could result in 50% reduction of emission of iron produced from DRI route.

\*Major constraint using DRI setup is high Ore Fe requirement usually >65% Fe content

**Annexure XVIII**  
**Decarbonization plan**

# Single Use Plastic Awareness Sessions



# Single Use Plastic Awareness Sessions



# Single Use Plastic Awareness Sessions

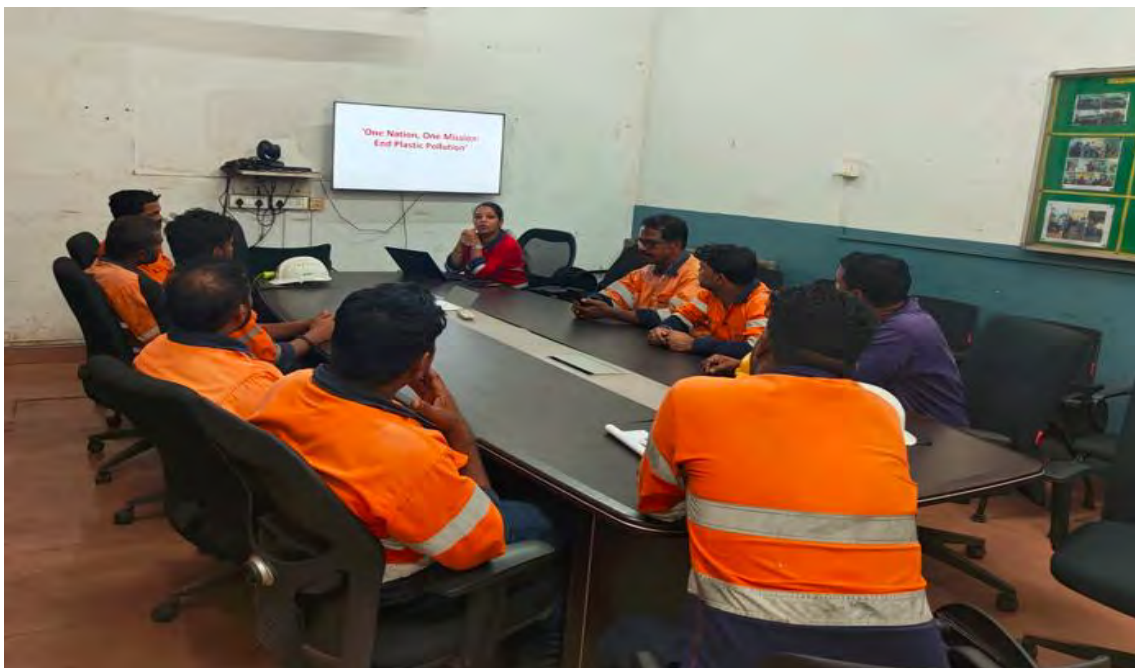


NOTE50S 50+



23mm f/1.7 1/150s ISO50

# Single Use Plastic Awareness Sessions



# Single Use Plastic Awareness Sessions



# Single Use Plastic Awareness Sessions

**Annexure XX**  
**EC advertisement in newspapers**

# EC advertisement on local newspapers

supply of industrial alcohol, the Supreme Court held on Wednesday that it was not the Government's duty to regulate the supply of industrial alcohol to the States.

The apex court further observed that the Government's duty to regulate the supply of industrial alcohol is not a legislative competence to regulate the supply of industrial alcohol to the States.

The apex court further observed that the Government's duty to regulate the supply of industrial alcohol is not a legislative competence to regulate the supply of industrial alcohol to the States.

■ In a 3:2 majority ruling, the top court held that the phrase "industrial liquor" in Entry 9 of the State List in the Seventh Schedule of the Constitution does not include industrial alcohol.

The apex court further observed that the Government's duty to regulate the supply of industrial alcohol is not a legislative competence to regulate the supply of industrial alcohol to the States.

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## Wayanad LS bypoll: Priyanka Gandhi files nomination for electoral debut

Wayanad Congress general secretary Priyanka Gandhi Vadga on Wednesday filed the nomination for the assembly bypoll in the Lakshadweep constituency in Kerala. She is the daughter of the late leader of the Congress party, the late leader of the Congress party, the late leader of the Congress party.

At the age of 27 years, I am competing for my father's seat (Wayanad) in 1980, I have been 36 years now (since then) I have campaigned for my mother, for my brother and for many of my (party) colleagues. This is the first time I am campaigning for myself.

—Priyanka Gandhi

At the age of 27 years, I am competing for my father's seat (Wayanad) in 1980, I have been 36 years now (since then) I have campaigned for my mother, for my brother and for many of my (party) colleagues. This is the first time I am campaigning for myself.

—Priyanka Gandhi

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—Priyanka Gandhi

**VEDANTA LIMITED**  
Registered Office: 1st Floor, C wing, Unit 103, Corporate Avenue Andriy,  
Chokkikulam, Andriy (East) Mumbai, Maharashtra - 400032 India  
CN 1, 13278401969/13278401969. Website: www.vedanta.com  
Email: [investorcommunications@vedanta.com](mailto:investorcommunications@vedanta.com). Telephone No: +91-4325713631

**PUBLIC NOTICE**

This is to inform that Ministry of Environment, Forest and Climate Change, New Delhi, has accorded Environmental Clearance (EC) File No. (A-1)101/1949-2024/(A-1)ND-1 to the project: Expansion in production capacity of Pig Iron Plant from 1 MTPA to 1.2 MTPA by increasing the production capacity of existing BF (from 0.85 MTPA to 0.85 MTPA) (Tiger BF capacity from 1 MTPA to 1.2 MTPA) and other plant from 1 MTPA to 1.2 MTPA through modernization and installation of 3rd raw Plant from 0.2 MTPA to 0.36 MTPA by M/s Vedanta Limited, located at villages, Amrao and Navim, Taluka, Bicholim, District, North Goa, Goa. The copy of Environment Clearance letter is available in the office of Goa State Pollution Board and also available on website (<https://openminded.in/>) of Maharashtra, Forest and Climate Change, Govt. of India.

For Vedanta: Sushant Sardesai, CEO, Value Added Business.

**MARGAO MUNICIPAL COUNCIL**  
MARGAO, GOA

**VEDANTA LIMITED**  
Registered Office: 1st Floor, C wing, Unit 103, Corporate Avenue Andriy,  
Chokkikulam, Andriy (East) Mumbai, Maharashtra - 400032 India  
CN 1, 13278401969/13278401969. Website: www.vedanta.com  
Email: [investorcommunications@vedanta.com](mailto:investorcommunications@vedanta.com). Telephone No: +91-4325713631

**Meson Valves India Ltd**  
OR LIGNONVALVE  
Regd. Office: Plot No L-40, First Floor, Software Technology Park,  
Vanga Industrial Estate, Vanga, South Goa, Goa, India. 401201  
Email: [mesonvalves@rediffmail.com](mailto:mesonvalves@rediffmail.com) Website: [www.mesonvalves.com](http://www.mesonvalves.com)

**POSTAL BALLOT NOTICE**  
Notice is hereby given that Meson Valves India Limited (The Company) is seeking nomination of candidates for the 1st round of the 10th Maharashtra Legislative Assembly (MLA) constituency of Vanga (South Goa) for the year 2024. The Postal Ballot Notice (The Notice) is available in the office of the District Election Officer, Vanga, South Goa, Goa, India. The Notice is also available on the website of the Maharashtra State Election Commission ([www.msecon.in](http://www.msecon.in)) and on the website of the Maharashtra State Election Commission ([www.msecon.in](http://www.msecon.in)).

**VEDANTA LIMITED**  
Registered Office: 1st Floor, C wing, Unit 103, Corporate Avenue Andriy,  
Chokkikulam, Andriy (East) Mumbai, Maharashtra - 400032 India  
CN 1, 13278401969/13278401969. Website: www.vedanta.com  
Email: [investorcommunications@vedanta.com](mailto:investorcommunications@vedanta.com). Telephone No: +91-4325713631

**VEDANTA LIMITED**  
Registered Office: 1st Floor, C wing, Unit 103, Corporate Avenue Andriy,  
Chokkikulam, Andriy (East) Mumbai, Maharashtra - 400032 India  
CN 1, 13278401969/13278401969. Website: www.vedanta.com  
Email: [investorcommunications@vedanta.com](mailto:investorcommunications@vedanta.com). Telephone No: +91-4325713631



**Annexure XXI**  
**EC Copies submitted to local bodies**



**sesa goa iron ore**

Ref No. VAB/ENV/2024-25/39

28/10/2024

To,  
North Goa Zilla Panchayat  
Junta House, 3<sup>rd</sup> Lift, 5<sup>th</sup> Floor  
Panaji, Tiswadi, Goa-403001

Subject: Submission of Environment Clearance copy

Sir,

We would like to inform your good office that we have received Environment Clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business

Saptesh Sardesai

CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

VEDANTA LIMITED

Sesa Goa iron ore: Sesa Gher, 20 FDC Complex, Patto, Panaji, Goa – 403 001, India  
T: +91 (832) 3402600 | Website: [www.sesagoa.com](http://www.sesagoa.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 101, Corporate Avenue, And Projects, Chakola, Andheri (East), Mumbai 400093, Maharashtra, India.  
CIN: L13300MH1985PLC291934

[www.vedanta.com](http://www.vedanta.com)



## sesa goa iron ore

Ref No. VAB/ENV/2024-25/40

28/10/2024

To,  
District Magistrate  
Collectorate North,  
Panaji, Goa-403001

Subject: Submission of Environment Clearance copy

Sir,

We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business



Saptesh Sardesai

CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

### VEDANTA LIMITED

Sesa Goa Iron Ore, Sesa Ghor, 20 EDC Complex, Panaji, Goa - 403001, India  
T: +91 (0)832 3498600 | Website: [www.sesagoa.com](http://www.sesagoa.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atal Projects, Chakale, Andheri (East), Mumbai-400051, Maharashtra, India.  
CIN: L33209MH1965PLC291304

Sesa Ghor (Sesa) EDC



**sesa goa iron ore**

Ref No. VAB/ENV/2024-25/41

28/10/2024

To,  
Directorate of Industries trade and commerce  
Udyog Bhavan,  
Panaji, Goa- 403001

Subject: Submission of Environment Clearance copy

Sir,


We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business

  
Saptesh Sardesai

  
CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

VEDANTA LIMITED  
Sesa Goa Iron Ore, Sesa Gate, 20 EDC Complex, Patra, Panaji, Goa - 403 001, India  
T: +91 0832 2460600 | Website: [www.sesagoa.vedanta.com](http://www.sesagoa.vedanta.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, And Projects, Chhatkoti, Andheri (East), Mumbai 400033, Maharashtra, India  
CIN: L13209MH1965PLC291394

Sensitivity: Internal (S)



**sesa goa iron ore**

Ref No. VAB/ENV/2024-25/42

28/10/2024

To,  
Deputy Collector & SDO  
Udyog Bhavan,  
Panaji, Goa- 403001

Subject: Submission of Environment Clearance copy

Sir,

We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business

Saptesh Sardesai

CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

**VEDANTA LIMITED**

Sesa Goa Iron ore, Sesa Ghos, 20 EDC Complex, Patra, Panaji, Goa - 403 001, India  
T +91 0832 2450600 | Website: [www.sesagoaironore.com](http://www.sesagoaironore.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Andheri (East), Mumbai 400093, Maharashtra, India  
CIN: L11209MH1965PLC201394

Sensitivity: Internal (C3)



**sesa goa iron ore**

Ref No. VAB/ENV/2024-25/43

28/10/2024

To,  
Block Development Officer  
1 st Floor, Govt Complex Building,  
Bicholim, Goa-403504

Subject: Submission of Environment Clearance copy

Sir,


We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business

  
Saptesh Sardesai

  
CCO-Value Added Business  
Vedanta Ltd. Amona, Goa

VEDANTA LIMITED  
Sesa Goa Iron Ore, Sesa Gate, 20 EDC Complex, Patto, Panaji, Goa - 401301, India  
T: +91 0812 2490000 / Website: [www.sesagoanironore.com](http://www.sesagoanironore.com)

REGD. OFFICE: 7th Floor, L1 Block, C- Wing, Unit 103, Corporate Avenue, Plot 18/19A, Sector 10, Gurgaon, Haryana, India  
CIN: L13209MH1965PLC291394

Sensitivity: Internal (C1)



**sesa goa iron ore**

Ref No. VAB/ENV/2024-25/44

28/10/2024

To,  
Sankhali Municipal Council  
Dessai Nagar,  
Sankhali, Goa- 403505

Subject: Submission of Environment Clearance copy

Sir,

We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business

Saptesh Sardesai

GEO Value Added Business  
Vedanta Ltd, Amona, Goa

**VEDANTA LIMITED**

Sesa Goa iron ore, Sesa Gate, 20 EDC Complex, Patto, Panaji, Goa - 403 001, India  
T +91 0832 2400600; Website: [www.sesagoa.vedanta.com](http://www.sesagoa.vedanta.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 105, Corporate Avenue, And Project C, Chakola, Andheri (East), Mumbai 400093, Maharashtra, India  
CIN: L1209MH1985PLC291394

VEDANTA LIMITED



**sesa goa iron ore**

Ref No. VAR/ENV/2024-25/45

28/10/2024

To,  
Amona Panchayat,  
Bicholim-Goa 403107

Subject: Submission of Environment Clearance copy

Sir,


We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,

Yours faithfully,

For Vedanta Limited – Value Added Business

  
Saptesh Sardesai

  
CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

VEDANTA LIMITED  
Sesa Goa Iron Ore, Sesa (Bhor), 20 EDC Complex, Patto, Panjim, Goa – 403 001, India  
T: +91 0832 2466600 | Website: [www.sesagoa.com](http://www.sesagoa.com)

Registered Office: Vedanta Limited, 1st Floor, C Wing, Unit 105, Corporate Avenue, Anil Project, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India  
CIN: L13209MH1965PLC291396

Sensitivity: Internal (C)



## sesa goa iron ore

Ref No. VAB/ENV/2024-25/46

28/10/2024

To,  
Navelim Panchayat  
Bicholim-Goa 403107

Subject: Submission of Environment Clearance copy

Sir,

We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,  
Yours faithfully,  
For Vedanta Limited – Value Added Business

Saptesh Sardesai  
CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

### VEDANTA LIMITED

Sesa Goa Iron Ore: Sesa Gate, 20 EDC Complex, Patto, Panjim, Goa - 403 001, India  
T: +91 0832 2460600 | Website: [www.sesagoa.vedanta.com](http://www.sesagoa.vedanta.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Ajaj Projects, Chhatrapati Shahu (East), Mumbai 400093, Maharashtra, India.  
CIN: L13209MH1965PLC291994

VEDANTA LTD



**sesa goa iron ore**

Ref No. VAB/ENV/2024-25/47

28/10/2024

To,  
Chief Inspector of Factories and Boilers  
Government of Goa  
Inspectorate of Factories and Boilers  
Altinho, Panaji, Goa

Subject: Submission of Environment Clearance copy

Sir,

We would like to inform your good office that we have received environment clearance for our expansion project for Value added Business at Vedanta Ltd. Amona – Navelim Goa vide EC Identification No EC24A1001GA5281560N dated 18/10/2024. We are submitting herewith the copy of Environmental Clearance for your reference.

Thanking you,  
Yours faithfully,  
For Vedanta Limited – Value Added Business

Saptesh Sardesai  
CEO-Value Added Business  
Vedanta Ltd. Amona, Goa

**VEDANTA LIMITED**  
Sesa Goa iron ore: Sesa Ghir, 20 EDC Complex, Patto, Panaji, Goa – 403 001, India.  
T: +91 0832 2460600 | Website: [www.sesagoaironore.com](http://www.sesagoaironore.com)

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, And Projects, Chakala, Andheri (East), Mumbai 400093, Maharashtra, India.  
CIN: L15200MH1965PLC291194

Sensitivity: Internal (C3)