

To,  
**The Additional Principal Chief Conservator of Forest (C)**  
**Ministry of Environment, Forest & Climate Change,**  
Regional Office (SZ),  
4<sup>th</sup> Floor, E&F Wing, Kendriya Sadan,  
Koramangala, Bengaluru - 560034

**Date: 21<sup>st</sup> May 2024**

**Ref: GGIAL/MoEF&CC-EC/2024-25/2098**

Dear Sir,

**Sub: Submission of Half Yearly EC Compliance Report of 'Greenfield International Airport at Mopa, Goa' by GMR Goa International Airport Limited (GGIAL), for the period from October 2023 to March 2024.**

**Name of the Project: Greenfield International Airport at Mopa, Goa.**  
**EC File No. : F.No.10-29/2011-IA.III dated 28<sup>th</sup> October 2015**

**Ref: 1. Original EC vide letter No. F.No.10-29/2011-IA.III dated 28<sup>th</sup> October 2015**  
**2. Hon'ble Supreme Court of India's Order dated 16<sup>th</sup> January 2020**  
**3. Addendum to Original EC dated 13<sup>th</sup> March 2020**

With reference to the subject & references mentioned above, we are herewith submitting the Half Yearly Environmental Clearance (EC) Compliance Report of 'Greenfield International Airport at Mopa, Goa' being developed and operated by GMR Goa International Airport Limited (GGIAL), for the period from October 2023 to March 2024.

Soft copy of this signed covering letter along with said EC Compliance Report, environmental monitoring report and other annexures are being submitted as a single document in pdf to your good office by e-mail ([rosz.bnq-mef@nic.in](mailto:rosz.bnq-mef@nic.in)).

We request your good offices to kindly acknowledge receipt of the same.

Thanking you,

Yours Sincerely,  
for **GMR Goa International Airport Limited**

**R V Sheshan**  
**Chief Executive Officer**

Enclosure: a/a

Copy for kind information to:

1. The Director, MoEF&CC, GOI, Indira Paryavaran Bhawan, CGO Complex, New Delhi – 110 003
2. The Member Secretary, CPCB, Parivesh Bhavan, East Arjun Nagar, New Delhi – 110 032
3. The Member Secretary, Goa State Pollution Control Board, Saligao, Goa - 403 511
4. The Director, Directorate of Civil Aviation, GoG, Secretariat, Porvorim, Goa – 403 521



# HALF YEARLY ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

(Period: October 2023 to March 2024)



## Environmental Clearance Compliance Status Report of

### Greenfield International Airport at Mopa, Goa

With reference to

MoEF&CC's EC Letter No: F.No.10-29/2011-IA.III dated 28.10.2015

Addendum to EC Conditions dated 13.03.2020

## GMR GOA INTERNATIONAL AIRPORT LIMITED

### MANOHAR INTERNATIONAL AIRPORT

Mopa, Pernem Taluka, North Goa District, Goa – 403 512



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Point-wise compliance

No.	Reference No.	Conditions	Compliance
<b>Conditions of EC dated 28/10/2015</b>			
1.	4 (A) (i)	'Consent to Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981, and the Water (Prevention and Control of Pollution) Act, 1974.	Complied. Consent to Establish was obtained from Goa State Pollution Control Board (GSPCB).  GGIAL has declared 7 <sup>th</sup> December 2022 as Non-Scheduled Commercial Operation Date (COD). Further, GGIAL has declared 5 <sup>th</sup> January 2023 as a Scheduled Commercial Operation Date (COD and commenced the operation phase.  Consent to Operate (CTO), vide letter No. 2/2022-PCB/1322094/R0008891 dated 20/10/2022, superseded by CTO vide letter No. 12/2023-PCB/1617143/R00011760 dated 13/04/2023 which is valid till 01/08/2027.
2.	4 (A) (ii)	The Project Proponent shall ensure the availability of adequate land at the junction of the Mopa Airport road and Mumbai /Goa NH-17 for traffic circulation/management and to provide for all the traffic interchanges and proposed clover leaf.	As per Concession Agreement (CA), this is being addressed by the Government of Goa (GoG).
3.	4 (A) (iii)	The approach and exit roads to the Airport shall be approved by the NHA1 and should be according to IRC norms.	As per CA, this is being addressed by GoG. The construction work is in progress and is being executed through State PWD, GoG.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
4.	4 (A) (iv)	A perusal of the Topo sheet superimposed on the runway area indicates that the extreme end of the runway is covering the drainage area partly. The drainage area which is under the runway shall be channelized. The area between the parallel taxiway and runway shall be handled carefully to drain the water from the area in outfall 2.	Complied. The engineering design & drawings of the drainage system have been approved by Water Resources Department, (WRD), GoG. Channelization of storm water in-between the Runway and Parallel Taxiway is completed, which is connected to Outfall # 2.
5.	4 (A) (v)	The PP shall submit the site clearance certificate from Directorate General of Civil Aviation (DGCA), before commencement of work at the project site.	Submitted and Complied. (Refer Annex – 4 of Half yearly EC compliance submitted vide letter no. GGIAL/MoEF&CC-EC/2021-2022/0688 dated 24 <sup>th</sup> May 2021).
6.	4 (A) (vi)	Sewage and other liquid effluent generated from the airport including from the existing terminal should be treated according to the norms laid down by the State Pollution Control Board. The treated sewage shall be recycled for flushing/ gardening. Proper dual plumbing shall be provided.	Complied. The 625 KLD STP is commissioned and currently in operation. Sewage and other liquid effluent is being treated by STP and 100% treated effluent is being reused and recycled. All treated effluent parameters are within the permissible norms prescribed by Goa State Pollution Control Board (GSPCB).
7.	4 (A) (vii)	The solid waste generated shall be properly collected, segregated, and disposed of according to the provisions of Solid Waste (Management and Handling) Rules, 2000. The project proponent shall make provisions for drinking water at	Complied. All solid waste is collected, segregated, and disposed of according to the provisions of Solid Waste (M&H) Rules, 2016.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
		convenient places for passengers and also at the cafeterias as to reduce the generation of solid wastes including PET bottles.	Integrated Solid Waste Management Facility (ISWMF) has been set up within the airport complex to handle all solid wastes through a dedicated third-party Waste Management Agency. Drinking water fountains has been provided for passengers in Passenger Terminal Building (PTB).
8.	4 (A) (viii)	Installation and operation of DG sets shall comply with the guidelines of CPCB.	Complied. Installation & Operation of DG sets is in compliance with the CPCB guidelines. Standby DG Sets of 2000 KVA x 3 Nos. are installed at the airport and CTO for the Airport consists of DG Sets as well, which is valid till 01/08/2027.
9.	4 (A) (ix)	Parking provision shall be provided according to the National Building Code of India, 2005.	Complied. Parking provision has been provided within the airport premises according to the National Building Code 2005.
10.	4 (A) (x)	Water conservation fixtures shall be provided and water balance shall be maintained through verifiable metering for fresh raw water, recycled as well as rain water harvesting.	Complied. Water conservation fixtures are installed. water balance is being maintained.
11.	4 (A) (xi)	Necessary permission shall be obtained for drawing of ground water from competent authority prior to construction / operation of the project.	Complied. Permission has been obtained from WRD, Goa.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
			(Refer Annex – 4 of Half yearly EC compliance submitted vide letter no. GGIAL/MoEF&CC-EC/2021-2022/0688 dated 24 <sup>th</sup> May 2021).
12.	4 (A) (xii)	The land use around the Airport complex shall be regulated through a plan to control unauthorized development which may create problems in the operation of Airport.	Mopa Airport Development Authority (MADA), GoG is the designated regulatory body to control the unauthorized development around the Airport complex. GGIAL has communicated to MADA vide letter dated 24/02/2021 for land use regulation around the airport complex.
13.	4 (A) (xiii)	The wastewater from hangers shall be tested for presence of heavy metals, if any, and shall be treated in STP. The treated wastewater shall be used for gardening/ flushing.	Noted. Compliance will be ensured when hangers are constructed and operated in future.
14.	4 (A) (xiv)	Rain water harvesting shall be provided to recharge the ground water.	Complied. Rainwater harvesting system, as approved by WRD, GoG is provided to recharge ground water.
15.	4 (A) (xv)	Energy conservation to the extent of at least 20% shall be incorporated including water conservation (reuse/recycle, rain water harvesting and water efficient fixtures) and other green building practices for various buildings proposed within the airport complex. The PP shall consider ECBC Guidelines 2009 to achieve energy-efficiency. The energy conservation measures shall be subject to periodic verification by the competent Energy Conservation/ Efficiency authority in the State.	Complied. Energy conservation, water conservation (reuse / recycle, rainwater harvesting and water efficient fixtures) and other green building practices for various buildings are incorporated within the airport complex. ECBC Guidelines have been followed to achieve energy efficiency.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
			Passenger Terminal Building (PTB) has been certified with Indian Green Building Council (IGBC) Platinum Rating by Confederation of Indian Industry (CII) vide IGBC Registration No. NBO 19 0084 dated 10/12/2022, which is valid for 3 years from the date of certification.
16.	4 (A) (xvi)	The project proponent shall prepare a detailed traffic management plan to take care of increased vehicular traffic which should also cover/clearly delineate widening/ increasing the existing roads and associated road infrastructure approving/ installation of road safety features/pedestrian facility/FOB/under passes etc. (that can be done by carrying out road safety audits). Measures shall be taken to prevent encroachment along/ within the Rows on connecting/ main arterial roads.	As per CA, this is being addressed by GoG.
17.	4 (A) (xvii)	All the recommendations of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to RO, MoEF&CC along with half yearly compliance report.	Complied. Compliance to the EIA mitigation measures in Matrix Format is attached as <b>Annexure – 1A</b> for Construction Phase and <b>Annexure – 1B</b> for Operation Phase.
18.	4 (A) (xviii)	The responses / commitments made during public hearing shall be complied with in letter and spirit.	Complied. Responses / commitments made during public hearing have been addressed and complied.
19.	4 (A) (xix)	Project Proponent shall install noise level display system. Noise level shall be monitored regularly in all seasons (different	Complied.







## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
		meteorological conditions) within the compound as well as nearby habitations and it shall be ensured that the noise level is within the prescribed limits. During night time the noise levels measured at the boundary shall be restricted to the permissible levels to comply with the prevalent regulations.	A noise level display system has been installed within the airport premises. Ambient noise levels monitoring is being conducted by MoEF&CC approved and NABL- accredited Environmental Laboratory. Noise level monitoring reports are enclosed in <b>Annexure-2</b> .
20.	4 (A) (xx)	The location of monitoring stations and monitoring of noise level during day and night shall be in accordance with the CPCB guidance document "Requirement and procedure for monitoring Ambient Noise Level due to aircraft" published on 25 <sup>th</sup> June, 2008.	Complied. 2 Nos. of Noise Monitoring Terminals (NMT) have been installed and commissioned at the two locations in the approach funnel zone of airport, duly approved by DGCA and GSPCB.
21.	4 (A) (xxi)	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	Being Complied. Major airport construction activities are already completed. Construction of small road stretch (Spine Road) within the airport premises connecting to expressway is in progress and at the final stage of construction. Construction spoils including bituminous materials are stored in concrete impervious containment with bund wall.
22.	4 (A) (xxii)	Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the SPCB.	Being Complied. Major airport construction activities are already completed. Construction of small road stretch (Spine Road) within the airport premises connecting to expressway is in





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
			progress and at the final stage of construction. Hazardous waste generated during construction is being disposed-off to GSPCB authorized recycler.
23.	4 (A) (xxiii)	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	EC obtained from MoEF&CC on 28 <sup>th</sup> October 2015 before starting the construction and the Addendum to EC was granted on 13 <sup>th</sup> March 2020. Consent to Operate (CTO), vide letter No. 2/2022-PCB/1322094/R0008891 dated 20/10/2022, superseded by CTO vide letter No. 12/2023-PCB/1617143/R00011760 dated 13/04/2023, which is valid till 01/08/2027. Scheduled commercial airport operation commenced on 5 <sup>th</sup> January 2023.
24.	4 (A) (xxiv)	The project proponent will set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Complied. Environmental Management Cell has been set up under the supervision of a Senior Executive designated as Vice President & Head – EHS & Sustainability.
25.	4 (A) (xxv)	<b>Corporate Environment Responsibility:</b> a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.	Complied. Environment Policy approved by Board of Directors is in place.
		b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/ deviation/violation of the environmental or forest norms/ conditions.	Complied.



No.	Reference No.	Conditions	Compliance
		c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.	Complied.
		d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/ or shareholders or stakeholders at large.	Complied.
<b>B.</b>	<b>GENERAL CONDITIONS:- EC dated 28/10/2015</b>		
26.	4 (B) (i)	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 etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Being Complied. Major airport construction activities are already completed. Construction of small road stretch (Spine Road) within the airport premises connecting to expressway is in progress and at the final stage of construction. Major portion of Labor within the project site has been dismantled as major project construction is completed. Currently small part of the labor colony is retained and provided with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, STP, drinking water, etc.
27.	4 (B) (ii)	A First Aid Room will be provided in the project both during construction and operation of the project.	Complied. First Aid Centre was provided during construction phase. Fully equipped Airport Medical Centre (AMC) with the necessary medical staff has





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
			been provided at PTB for the operation phase of the airport.
28.	4 (B) (iii)	All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.	Complied. The excavated topsoil was stored at designated locations within the site and the same has been completely utilized for landscaping and horticulture purposes within the airport premises.
29.	4 (B) (iv)	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	Complied. Excavation and filling activities for airport project have been completed. The entire quantity of excavated earthwork has been utilized for filling & leveling within the airport project site.
30.	4 (B) (v)	The diesel generator sets to be used during construction phase should be low Sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards. The diesel required for operating DG sets shall be stored in underground tanks and if required clearance from Chief Controller of Explosives shall be taken.	Complied. Low Sulphur diesel conforming to BS VI was used in DG sets during the construction phase, for which PESO license for storage of HSD was obtained. The same is complied with and implemented for Operation Phase also.
31.	4 (B) (vi)	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	Being Complied. Major airport construction activities are already completed. Construction of small road stretch (Spine Road) within the airport premises connecting to expressway is in progress and at the final stage of construction.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
			<p>Vehicles hired for transporting construction materials are in good condition and having Pollution Under Control (PUC) certificate and conforming to applicable air and noise emission standards. All construction vehicles are undergoing periodical checking and maintenance.</p> <p>(Sample is enclosed in <b>Annexure-1A</b>).</p> <p>Vehicle bringing construction materials were using National Highway (NH) and State Highway (SH) roads, to reach out to the to the Airport project site. There is no restriction imposed w.r.t peak and non-peak hours for NH and SH roads by central Govt. &amp; State Govt.</p>
32.	4 (B) (vii)	Fly ash usage shall be explored as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27 <sup>th</sup> August, 2003.	Complied. Fly ash was used in Ready Mixed Concrete (RMC).
33.	4 (B) (viii)	Ready mixed concrete must be used in building construction.	Complied. Ready Mixed Concrete (RMC) was used in all building construction.
34.	4 (B) (ix)	Storm water control and its re-use as per CGWB and BIS standards for various applications.	Complied. This has been implemented as per the approval from WRD, GoG.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
35.	4 (B) (x)	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Complied. Curing agents were used. All concrete works were done with pre-mixed concrete i.e. RMC only. Major concrete work has been completed. Currently, Airport is operational.
36.	4 (B) (xi)	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	Complied. The buildings are incorporated with dual plumbing system.
37.	4 (B) (xii)	Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.	Complied. The glazing work are installed in PTB and Air Traffic Control (ATC) tower buildings with double glass unit with reflective coating as per IGBC guidelines.
38.	4 (B) (xiii)	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.	Complied. Roof work has been carried out as per ECBC / IGBC Guidelines with appropriate thermal insulation. PTB has been accorded with IGBC Platinum Certificate from CII.
39.	4 (B) (xiv)	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.	Complied. The work has been executed as per ECBC / IGBC Guidelines.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
40.	4 (B) (xv)	The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	Compliance as applicable for safe operation of airport as per aviation safety requirements will be ensured.
41.	4 (B) (xvi)	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	Complied. Traffic congestion near the entry & exit points from the roads adjoining the airport is avoided with involvement of GoG authorities. Earmarked Parking has been provided within the airport premises. Letter has been submitted to Police Inspector, Traffic Cell, Mopa Airport Police Station to address the compliance requirement of this condition. Necessary actions are being taken up by the traffic police in coordination with GGIAL.
42.	4 (B) (xvii)	The construction of the structures shall be undertaken as per the plans approved by the concerned local authorities/local administration, meticulously conforming to the existing local and central rules and regulations.	Complied. Construction of the structures have been undertaken as per the plans approved by MADA, GoG.
43.	4 (B) (xviii)	The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.	Complied. Statutory approvals of approved quarries from where construction materials were sourced are submitted, (Refer Annex – 4 of Half yearly EC compliance submitted vide letter no. GGIAL/MoEF&CC-EC/2021-2022/0688 dated 24/05/2021).
44.	4 (B) (xix)	Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.	Complied. Major construction / excavation / filling activities have been completed. Necessary precautions for dust suppression





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
			during transportation of the construction materials for the ongoing spine road construction has been deployed. Refer <b>Annexure- 1A</b>
45.	4 (B) (xx)	Full support shall be extended to the officers of this Ministry/Regional Office by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Noted. Full support has been extended to the officers of Ministry/Regional Office during the site inspection. Full support was extended to GSPCB to conduct Continuous Ambient Air Quality Monitoring at the Airport during November & December 2023, all monitored parameters are found to be within the prescribed limits.
46.	4 (B) (xxi)	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry regarding the implementation of the stipulated conditions.	Complied. Six-monthly compliance report highlighting the status of implementation of stipulated EC conditions, is being submitted regularly to MoEF&CC Regional Office. The last report was submitted on 10 <sup>th</sup> November 2023.
47.	4 (B) (xxii)	Ministry of Environment, Forest & Climate Change or any other competent authority may stipulate any additional conditions or modify the existing. ones, if necessary in the interest of environment and the same shall be complied with.	Noted.
48.	4 (B) (xxiii)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted.







## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
49.	4 (B) (xxiv)	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment, Forest & Climate Change.	Noted.
50.	4 (B) (xxv)	The project proponents 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 and the date of start of land development work.	<ol style="list-style-type: none"><li>1. Financial Closure for the project has been achieved on 7<sup>th</sup> July 2017.</li><li>2. The approval of the project was obtained from the Directorate General of Civil Aviation (DGCA), GoI, New Delhi vide their letter no. AV.20024/17/00-AL dated 27<sup>th</sup> July 2017.</li><li>3. Land development work started and the same have been communicated to MoEF&amp;CC (Letter submitted to Regional Office of MoEF&amp;CC vide letter no. GGIAL/MoEF&amp;CC/ 2018/0194 dated 26<sup>th</sup> February 2018).</li></ol> The above details have been further submitted to Regional Office, MoEF&CC and MoEF&CC, New Delhi vide our letter No. GGIAL/MoEF&CC-EC/2020-21/0519 dated 13 <sup>th</sup> August 2020.
51.	4 (B) (xxvi)	A copy of the clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal.	Complied.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
52.	4 (B) (xxvii)	A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office / Tehsildar's office for 30 days.	Complied.
53.	4 (B) (xxviii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.	Being complied. Environmental expenditure for the period from October 2023 to March 2024 is enclosed as <b>Annexure – 3</b> .
54.	5	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.	Relevant environmental acts and rules are being complied with.
55.	6	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Complied. Necessary approvals from the concerned authorities have been obtained as applicable. A list of various statutory clearances / permits / approvals related to the Environment, obtained or applicable to the airport project have been submitted (Refer Annexure – 4 of previous Half yearly EC compliance reports submitted earlier). List of approval / clearances / permits obtained during October 2023 to March 2024 is enclosed as <b>Annexure-4</b> .





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
56.	7	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry.	Complied. EC was published in Tarun Bharat and Navhind Times on 31 <sup>st</sup> August 2015.
57.	8	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No .460 of 2004 as may be applicable to this project.	Noted.
58.	9	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Complied. All stipulated environmental conditions and environmental safeguards are being compiled in Half Yearly EC Compliance Report and the same is being uploaded on company website of GGIAL. <a href="https://www.gmrqroup.in/goa/">https://www.gmrqroup.in/goa/</a>
59.	10	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.





### Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
60.	11	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Complied. For FY 2022-23, Environmental Statement for the operation and maintenance of the airport has been submitted to GSPCB in September 2023. For FY 2023-24, Environmental Statement for the operation and maintenance of the Airport is under preparation and same will be submitted to GSPCB before September 2024.
<b>Additional NGT Conditions vide NGT order dated 21/08/2018</b>			
	<b>A</b>	<b>Air Environment</b>	
61.	1	Total Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM) during construction phase. Un-burnt and Hydro Carbons (HC), Lead (Pb), CO <sub>2</sub> , SO <sub>2</sub> , CO <sub>2</sub> , SOOT and Oxides of Nitrogen (NO <sub>x</sub> ) during operation phase are going to be major pollutants in this kind of project. Besides, fugitive emissions of Volatile Organic Compounds (VOC) during fuel handling can be another issue for ambient air environment. The provision of only 6 (six) Air Quality Monitoring Stations is inadequate as sampling duration has been given as 'twice a week, 4 weeks in a season as per CPCB standards for NAAQM, 1994. It would be appropriate if the Project Proponent establishes real time online continuous Air Quality Monitoring Station also which is connected to CPCB server and capable of monitoring all relevant and critical parameters and mitigation measures taken.	Complied. Environmental Quality Monitoring of Suspended Particulate Matter (SPM), PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , CO <sub>2</sub> , NO <sub>x</sub> , CO, Pb and VOC are being conducted. The AAQ Monitoring report is enclosed as <b>Annexure-2</b> . Real-time Online Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been installed and commissioned at GSPCB approved location.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
62.	2	Although all parameters w.r.t ambient air parameters have been found to be within limits for all 6 (six) locations monitored, we feel for the purpose of giving/depicting holistic picture with regard to ambient air in the area, at least 3 (three) more locations falling in the State of Maharashtra be also monitored and documented.	Complied. Report of AAQ monitoring conducted at additional 3 locations in the State of Maharashtra is enclosed as <b>Annexure - 2</b> .
	<b>B</b>	<b>Water Environment</b>	
63.	1	Only two number of Rain Water Harvesting pits have been provided which we feel are not adequate and there is a need to place other pits at such locations so as to capture all the excess drainage for water re-charge.	Complied. The rainwater harvesting plan have been revised and also approved by WRD, GoG vide letter No. 9/3/EO/WRD/2022-23/59 dated 26-05-2022. The rainwater harvesting structure have been implemented in accordance with the WRD approved drawings.
64.	2	More frequent Water Quality Monitoring i.e. once every month may be carried out by Project Proponent at bore wells and STP discharge plants instead of 4 (four) times in a year as proposed.	Complied. Water Quality Monitoring is being carried out on monthly basis. Monitoring reports for the same are enclosed in <b>Annexure-2</b> .
	<b>C</b>	<b>Noise Environment</b>	
65.	1	It has been proposed that ambient noise levels shall be monitored around the premises of airport, near DG sets and at main entrance/boundary of airport once a week at 7 (seven) locations which we feel are inadequate. Besides these, continuous monitoring of occupational noise exposure limits in such industrial environments would be appropriate with audible or visual alarm output capability.	Complied. Noise levels monitoring at 12 locations in and around the airport premises is being carried out by MoEF&CC approved Environmental Laboratory. Noise Monitoring reports are enclosed in the <b>Annexure-2</b> .



No.	Reference No.	Conditions	Compliance
66.	2	Integrated Noise Model (INM) be more frequently used and mitigation undertaken during the operational phase of project at regular intervals.	Complied. Aviation Environment Design Tool (AEDT), which is an integrated Noise Model is being used for Airport Noise Zone Mapping, planning and mitigation measures. Airport Noise Zone Mapping and Demarcation of LAmx has been prepared and submitted to DGCA, which has been duly approved by DGCA. The Airport Noise Zone details are available on the company website. <a href="https://www.gmrgroup.in/goa/">https://www.gmrgroup.in/goa/</a>
67.	3	Although ambient noise levels have been found to be within limits at 9 (nine) locations monitored, we feel for the purpose of giving/depicting holistic picture with regard to ambient noise levels in the area, at least 3 (three) more locations falling in the State of Maharashtra be also monitored and documented.	Complied. Noise Monitoring at additional 3 locations in Maharashtra State is being carried out by MoEF&CC approved laboratory. Noise monitoring reports are enclosed in <b>Annexure-2.</b>
	<b>D</b>	<b>Land Environment</b>	
68.	1	There is a potential for impact on soil quality due to project related spills and leaks of fuel and chemicals and uncontrolled disposal of wastes and waste water. Adequate care be taken to avoid spills and leaks of hazardous substances and all project related wastes. Littering on sites and beyond the sites needs to be adequately prevented and controlled.	Complied. Major airport construction activities are already completed. Construction of small road stretch (Spine Road) within the airport premises connecting to expressway is in progress and at the final stage of construction. Adequate care was taken to avoid spills and leaks of hazardous substances during the spine road construction.

No.	Reference No.	Conditions	Compliance
69.	2	Debris and Muck Management Plan to be prepared and implemented so as to avoid spillage of muck and debris on the slopes.	Complied. Major construction activities have been completed.
70.	3	Soil conservation and stabilization measures needs to be undertaken by deploying both mechanical and bio-engineering methods.	Complied. Soil stabilization is ensured by providing geotextile materials on slopes. Gabion walls are provided as a soil retaining structures wherever required.
71.	4	Remediation, restoration and compensation needs to be integral part of policy so as to provide adequate relief for any environmental or project related disasters.	Complied. Framework for remediation, restoration and compensation for any unlikely event of environmental or project-related disasters has been prepared.
	<b>E</b>	<b>Biological Environment</b>	
72.	1	Efforts be made to transplant the trees to other locations in the same vicinity by using appropriate mechanical devices which are available these days.	Complied. Efforts have been made to successfully translocate 500 nos. of trees within airport project premises.
73.	2	Efforts be made to plant indigenous species which are tall in size rather than small saplings.	Complied. Efforts have been made to plant indigenous tree species which are tall in size, at airport landside avenue plantation areas.
74.	3	Concerns have been raised by appellants with regard to plant species 'Dipcadi concanense' which has been claimed to be a threatened plant. This claim of the appellants has been negated by the respondent by producing a documentation of Botanical Survey of India, Western Regional Centre, Pune, Maharashtra titled as "A Note on Occurrence and Distribution of Dipcadi	Complied. Dipcadi Concanense is conserved in a forest conservatory by Forest Department, GoG.



No.	Reference No.	Conditions	Compliance
		concanense". By invoking Precautionary Principle, we direct the Project Proponent to draw up a Conservancy by Plan/Scheme for 'Dipcadi concanense' in collaboration with Forest Department, State of Goa and Botanical Survey of India and ensure its implementation.	
	<b>F</b>	<b>Socio-economic Environment</b>	
75.	1	Adequate drills with respect to implementation of Disaster Management plan needs to be carried out at regular intervals so as to ensure preparedness and rapid response to any disasters both man-made or natural.	<p>Complied.</p> <p>For the construction phase of the project, 'Onsite Emergency and Disaster Management Plan' was prepared and implemented.</p> <p>For the operation phase of the airport, 'Airport Emergency Response Plan' has been prepared and implemented at the airport. Emergency response drills were conducted during Construction phase and 09 Nos. Mock Drills for the operation phase were conducted in regular intervals in the period of October 2023 to March 2024.</p>
76.	2	Although 'Disaster Management Plan' as Annexure-II is part of EIA Report under the Sub head 1.2.1- National Disasters needs further elaboration especially in terms of Emergency Response Measures, Rules and Responsibility, Mitigation, etc.	<p>Complied.</p> <p>For the construction phase of the project, 'Onsite Emergency and Disaster Management Plan' was prepared and implemented with adequate Emergency Response Drills.</p> <p>For the operation phase of the airport, comprehensive 'Airport Emergency Response Plan' has been prepared and implemented at the airport.</p>







## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
<b>Addendum to EC dated 23<sup>rd</sup> March 2020</b>			
	<b>I</b>	<b>Statutory compliance</b>	
77.	(i)	The project proponent shall obtain certificate from Chief Wildlife Warden (CWLW) of State through State Government that none of the area of the project falls in the notified Eco-sensitive Zone (ESZ) and no activity prohibited in the Eco-sensitive zone will be taken up.	Submitted & Complied. Obtained Certificate from Chief Wildlife Warden (CWLW), GoG, mentioning that none of the area falls in notified Eco-Sensitive Zone (ESZ). (Refer Annex – 4 of Half yearly EC compliance submitted vide letter no. GGIAL/MoEF&CC-EC/2021-2022/0688 dated 24 <sup>th</sup> May 2021).
78.	(ii)	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	Complied. Consent to Operate has been obtained from GSPCB. The same is valid till 1 <sup>st</sup> August 2027.
79.	(iii)	The project proponent shall obtain necessary permission from the competent authority for drawl of water from Tillari Irrigation Canal.	Complied. Permission has been obtained from WRD, GoG for drawl of water from the Tilari irrigation Canal. (Refer Annex – 4 of Half yearly EC compliance submitted vide letter no. GGIAL/MoEF&CC-EC/2021-2022/0688 dated 24 <sup>th</sup> May 2021).





No.	Reference No.	Conditions	Compliance
	<b>II</b>	<b>Air quality monitoring and preservation</b>	
80.	(i)	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM <sub>10</sub> and PM <sub>2.5</sub> in reference to PM emission, and SO <sub>2</sub> and NO <sub>x</sub> in reference to SO <sub>2</sub> and NO <sub>x</sub> emissions) within and outside the airport area covering upwind and downwind directions.	Complied. Ambient Air Quality Monitoring for common / criterion parameters relevant to main pollutants released (e.g. PM <sub>10</sub> and PM <sub>2.5</sub> in reference to PM emission, and SO <sub>2</sub> and NO <sub>x</sub> in reference to SO <sub>2</sub> and NO <sub>x</sub> emissions) within and outside of the project area is being carried out through MoEF&CC approved laboratory. The AAQ Monitoring reports for the period of October 2023 to March 2024 is enclosed as <b>Annexure - 2.</b>
81.	(ii)	Notification GSR 94 (E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities shall be complied with.	Complied. Dust mitigation measures on unpaved areas are undertaken and details are enclosed in <b>Annexure-1A.</b>
82.	(iii)	Soil and other construction materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet	Compliances are being ensured. Details are enclosed in <b>Annexure-1A</b>
83.	(iv)	The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.	Compliances are being ensured. Details are enclosed in <b>Annexure-1A</b>
84.	(v)	Excavated materials shall be handled and transported in a manner that they do not cause any air pollution.	Compliances are being ensured. Details are enclosed in <b>Annexure-1A</b>
85.	(vi)	The soil/construction materials carried by the vehicle should be covered by impervious sheeting to avoid leaking of the dusty materials.	Compliances are being ensured. Details are enclosed in <b>Annexure-1A</b>





No.	Reference No.	Conditions	Compliance
	<b>III</b>	<b>Water quality monitoring and preservation</b>	
86.	(i)	Appropriate drainage channels need to be designed to take care of the water flow into the nearest water courses/rivers, etc.	Complied. Drainage channels have been provided as per approval from WRD, GoG.
87.	(ii)	It should be ensured that sustainable water flow in the various channels of watershed in the plateau is maintained.	Compliance ensured. Sustainable water flow in various channels of watershed in the plateau is maintained by providing storm water drainage system. Drainage plan have been approved by WRD, GoG vide letter No. 9/3/EO/WRD/2022-23/59 dated 26-05-2022.
88.	(iii)	Storm water drains are to be built for discharging storm water from the air-field to avoid flooding/water logging in project area. Domestic and industrial waste water shall not be allowed to be discharged into the storm water drains and directed to STP for treatment.	Complied. 625 KLD Sewage Treatment Plant is commissioned and in operation.
89.	(iv)	Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.	Complied. Proper drainage systems & Oil Water Separator (OWS) have been provided. Spillage and Contaminant Containment Plan has been prepared and approved by GSPCB.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
90.	(v)	The runoff from paved structures like Aprons can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.	Complied. Runoff from the paved structure like Apron has been routed through Oil Water Separator (OWS).
91.	(vi)	Run off from chemicals and other contaminants from aircraft maintenance and other areas within the airport shall be suitably contained and treated before disposal. A spillage and contaminant containment plan shall be drawn up and implemented to the satisfaction of the State Pollution Control Board.	Complied. Runoff from chemicals and other contaminants from aircraft maintenance and other areas has been routed through Oil Water Separator (OWS) before disposal. Spillage and Contaminant Containment Plan has been approved by GSPCB.
92.	(vii)	The project activity shall conform to the General Standards for Discharge of Environmental Pollutants notified in the Environment (Protection) Rules, 1986, and amended from time to time.	Complied. General Standards for Discharge of Environmental Pollutants in the Environment (Protection) Rules, 1986 was considered in design phase itself and the same is being ensured during operation also.
93.	(viii)	Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Rain water harvesting structures shall conform to CGWA guidelines. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.	Complied. Rainwater harvesting for roof runoff and surface runoff has been implemented as per WRD, GoG approved rainwater harvesting plan.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
	<b>IV</b>	<b>Noise monitoring and prevention</b>	
94.	(i)	Notification G.S.R. 568(E) dated 18.06.2018 of MoEF&CC regarding Ambient Air Quality Standards with respect to Noise in Airport Noise Zone shall be complied with.	Airport Noise Zone Mapping Report as per GSR-568 (E) has been prepared & submitted to DGCA, which has been approved by DGCA vide letter No. DGCA-27041/1/2023-AED dated 29 <sup>th</sup> February 2024. The Airport Noise Zone details are available on the company website. <a href="https://www.gmrgroup.in/goa/">https://www.gmrgroup.in/goa/</a> .
95.	(ii)	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Complied. Noise levels monitoring in and around the airport is being conducted through MoEF&CC approved laboratory. Monitoring reports are enclosed in <b>Annexure - 2</b> .
96.	(iii)	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment's.	Complied. DG sets are installed with acoustic enclosures. Random workplace noise levels monitoring is being carried out through MoEF&CC approved laboratory. Monitoring reports are enclosed in <b>Annexure-2</b> .
97.	(iv)	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	Complied. DG sets are installed with acoustic enclosures. Necessary PPEs are provided to the operating personnel.
98.	(v)	During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the	Complied. Noise level monitoring is being carried out at airport boundary through MoEF&CC





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
		building shall be restricted to the permissible levels to comply with the prevalent regulations.	approved laboratory. Monitoring reports are enclosed in <b>Annexure-2</b> .
99.	(vi)	Where construction activity is likely to cause noise nuisance to nearby residents, restrict it to only during day time i.e. between 7 am to 6 pm.	Complied. Major Construction activities have been completed. Currently, the Airport is operational.
	<b>V</b>	<b>Energy Conservation/climate change measures</b>	
100.	(i)	Energy conservation measures like installation of LED should be integral part of the project design and should be in place before project commissioning.	Complied. Entire lighting fixtures provided across the airport complex are of LED type only.
101.	(ii)	Initiatives such as Green Infrastructure Development program, adoption of less emission intensive technologies, renewable energy program, electrical vehicles and Airport Carbon Accreditation need to be adopted to reduce its impact on climate change and Green House Gas (GHG) emissions as per environmental best practices governing greenfield airports.	Complied. The requirements of Green Infrastructure Development program, adoption of less emission intensive technologies, renewable energy program and electrical vehicles are considered in the design itself and same is being implemented. PTB has been accorded with IGBC Platinum Certificate from CII.
	<b>VI</b>	<b>Waste Management</b>	
102.	(i)	Soil stockpile shall be managed in such a manner that dust emission and sediment runoff are minimized. Ensure that soil stockpiles are designed with no slope greater than 2:1 (horizontal/vertical).	Complied. Soil stockpiles were managed and properly stabilized to minimize dust emission and sediment runoff.



No.	Reference No.	Conditions	Compliance
103.	(ii)	The project activity shall conform to the Fly Ash notification issued under the E.P. Act of 1986.	Complied. Fly Ash was used in RMC as per mix design in the construction.
104.	(iii)	The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out.	Complied. All solid waste collected, segregated and disposed according to the provisions of Solid Waste (M&H) Rules, 2016. Waste is handled at Integrated Solid Waste Management Facility and a dedicated Waste Management Agency is on-board to handle all wastes.
105.	(iv)	Solid inert waste found on construction sites consists of building rubble, demolition material, concrete; bricks, timber, plastic, glass, metals, bitumen etc shall be reused/recycled or managed so as to strictly conform to the Solid Waste Management Rules, 2016, and Construction and Demolition Waste Management Rules, 2016.	Complied. Solid inert waste from construction site was strictly managed as per the Solid Waste Management Rules, 2016 and C&D Waste Management Rules, 2016.
106.	(v)	The project proponents shall implement a management plan duly approved by the State Pollution Control Board and obtain its permissions for the safe handling and disposal of:	Integrated Solid Waste Management Plan has been prepared and same has been approved by GSPCB. a. Separate arrangement 'Airside Waste Transfer Station' has been provided to collect the trash from flights. Same is then transferred to Integrated Solid Waste Management Facility (ISWMF)
	a.	Trash collected in flight and disposed at the airport including segregation, collection and disposed.	
	b.	Toilet wastes and sewage collected from aircrafts and disposed at the Airport.	
	c.	Wastes arising out of maintenance and workshops	





No.	Reference No.	Conditions	Compliance
	d.	Wastes arising out of eateries and shops situated inside the airport complex.	b. Night Soil Pit has been provided to collect sewage waste from aircrafts. The same is then pumped to 625 KLD STP for treatment.
	e.	Hazardous and other wastes	c. All waste generated from maintenance and workshop is being collected, segregated, processed and transferred via Integrated Solid Waste Management Facility. d. All waste from eateries and shops is being collected, segregated, processed and transferred via Integrated Solid Waste Management Facility. e. Hazardous waste is being disposed-off to GSPCB authorized recyclers.
	<b>VII</b>	<b>Green Belt</b>	
107.	(i)	Green belt shall be developed in area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter-alia cover the entire periphery of the Airport.	Compliance, as applicable for safe operation of airport as per aviation safety requirements will be ensured.
108.	(ii)	The plantation species in and around Airport site should be carefully chosen to avoid bird nesting and to improve pollution control and noise control measures. Water intensive and/or invasive species should not be used for landscaping.	Compliance, as applicable for safe operation of airport as per aviation safety requirements will be ensured.
109.	(iii)	Plantation activity should be taken up under the expert guidance for forest department of Goa, care should be taken that soil	Noted. Compliance is being ensured.





No.	Reference No.	Conditions	Compliance
		erosion measures should be taken up on priority so that the rich mineralized soil of forest is not washed away. The plantation activity should also have an approach of soil conservation where planting is done along the contours avoiding gully formation. As far as possible monoculture plantation should be avoided.	
110.	(iv)	The proposed 10 times compensatory plantation need to be monitored by the Government of Goa so that the target of planting 5.5 lakh saplings is achieved in a time bound manner, their survival rate is monitored and mortality is replenished. As major chunk of 2.5 lakh of saplings is proposed to be done by the village level Bio Diversity Committees, it is necessary to ensure that people are largely given native species and/or fruit bearing saplings so that they will be able to derive economic benefits from such fruit crops and also such trees will provide better biological environment to birds.	GoG, through Goa State Biodiversity Board (GSBB) has carried out plantation of 5 lakh tree saplings as a compensatory afforestation plantation. GGIAL has contributed INR 1 Crore for supporting the compensatory plantation. Till now, GSBB has distributed & Planted 6,39,278 number of tree saplings. 50,000 trees will be planted inside the airport premises in the form of Miyawaki Plantation. Currently, the land preparation work is completed and plantation work will be completed during FY 2024-25.
111.	(v)	Top soil shall be separately stored and used in the development of green belt.	Complied. The excavated top soil was stored at designated locations within the site and the same was utilized for the landscaping and horticulture purposes within the airport premises.
	<b>VIII</b>	<b>Public hearing and Human health issues</b>	
112.	(i)	Solution/management plan regarding redressal of all the concerns raised in the public hearing must be clearly spelt out in the EMP and shall be implemented in letter and spirit.	Complied in collaboration with GoG.





## Half Yearly EC Compliance Report (October 2023 to March 2024)



No.	Reference No.	Conditions	Compliance
		Compliance for each mitigation plan shall be submitted to Regional Office, MoEF&CC along with half yearly compliance report.	
113.	(ii)	Provision of Electro-mechanical doors for toilets meant for disabled passengers shall be ensured. Children nursing/feeding room shall be located conveniently near arrival and departure gates.	Complied. Electro-mechanical doors and children nursing/feeding rooms are provided in PTB.
114.	(iii)	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Complied.
115.	(iv)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. Labor colony, within project site, with all necessary infrastructure and facilities was provided. Labour strength has come done substantially and partly labour colony is decommissioned. Major construction activities have been completed.
116.	(v)	Occupational health surveillance of the workers shall be done on a regular basis.	Being Complied. Occupational health surveillance of the workers is being carried out on regular basis.
<b>Conditions of Hon'ble Supreme Court of India (SCI) Order dated 16/01/2020</b>			
117.	(i)	Ref. No. 47: Adopt a Zero Carbon Programme during construction and operational phases of the Airport.	Compliance is being ensured. In line with our commitments submitted to SCI, infrastructure required for the Zero Carbon Program during operational phase





## Half Yearly EC Compliance Report (October 2023 to March 2024)



			was considered in the design itself and same has been implemented at site. Mapping of GHG emission is initiated from the date of commencement of the scheduled commercial airport operation.
118.	(ii)	Ref. No. 48 : The National Environmental Engineering Research Institute (NEERI) to be appointed to oversee compliance with the directions cumulatively issued by the Supreme Court.	Complied. NEERI has been appointed. NEERI visited project site and reviewed the EC compliance during 20 <sup>th</sup> to 22 <sup>nd</sup> December 2023. Further, NEERI reviewed the EC compliances on 20 <sup>th</sup> to 22 <sup>nd</sup> March 2024.

**ANNEXURE – 1A**

**ENVIRONMENTAL MITIGATION MEASURES AS PER EIA REPORT AND COMPLIANCE STATUS**  
**(CONSTRUCTION PHASE)**  
**AS OF March 2024**

S. No.	Mitigation Measures	Compliance Status
<b>Mitigation Measures for Air Environment during Construction Phase</b>		
01	Ensure preventive maintenance of vehicles and equipment.	Being complied. Excavation/filling activity is being carried out for spine road construction. Sample copy of Field Service Report of the vehicles working for the spine road construction work is enclosed as <b>Appendix-A</b> .
02	Ensure vehicles with valid Pollution Under Control certificates are used.	Being Complied. Excavation/filling activity is being carried out for spine road construction. Sample copy of PUC of the vehicles working for the spine road construction work is enclosed as <b>Appendix-B</b> .
03	Implement dust control activities such as water sprinkling on unpaved sites.	Being Complied. Excavation/filling activity is being carried out for spine road construction. Dust control measures are being implemented at site on the unpaved areas & excavation site using water tankers. Sample photographs of implementation of dust control measures are enclosed as <b>Appendix-C</b> .





## Half Yearly EC Compliance Report (October 2023 to March 2024)



S. No.	Mitigation Measures	Compliance Status
04	Ensure vertical stacks with height sufficient for dispersion as per CPCB guideline for DG stacks.	Being Complied. All DG sets working at the construction site are provided with sufficient vertical stack height as per the CPCB Guidelines. Photo showing DG with adequate stack height is enclosed in the <b>Appendix-D</b> .
05	Monitor water usage at construction camps to prevent wastage.	Being Complied. All major construction activities have been completed and construction camps are being dismantled partly. However, water usage at the construction camp is being monitored using water meters.
06	Ensure STP at construction camps/sites and the proposed facilities are properly designed to handle peak waste water load and properly maintained.	Being complied. Temporary STP of 150 KLD is in operation at the construction workmen camp. The STP is within airport project site premises and designed to handle peak waste water load and being properly maintained.
07	Ensure supply of temporary/portable toilets for construction staff.	Being Complied. All major construction activities have been completed except ongoing spine road construction and hence labour strength have also reduced significantly. However, sufficient number of temporary / portable toilets are provided for construction staff at site. Sample photo of portable toilet facility is enclosed as <b>Appendix-E</b> .





## Half Yearly EC Compliance Report (October 2023 to March 2024)



S. No.	Mitigation Measures	Compliance Status
<b>Mitigation Measures for Land Environment during Construction Phase</b>		
08	Avoiding rainy season for construction so as to avoid soil erosion.	Complied during construction phase. All major construction activities have been completed and airport is operational.
09	Restricting all construction activities inside project boundary.	Complied during construction phase.
10	Ensure top soil stock pile is not contaminated with any type of spills.	Complied during construction phase. The excavated topsoil was stored at designated locations within the site away from the possible spill areas. Same was utilized for landscaping and horticulture purposes within the airport premises.
11	Ensure any material resulting from clearing and grading should not be deposited on approach roads, streams or ditches, which may hinder the passage and/or natural water drainage.	Complied during construction phase. Materials resulting from clearing and grading at construction site was strictly managed as per the Solid Waste Management Rules, 2016 and Construction & Demolition Waste Management Rules, 2016.
<b>Mitigation Measures for Noise Environment during Construction Phase</b>		
12	Ensure preventive maintenance of equipment and vehicles.	Being complied. Excavation/filling activity is being carried out for spine road construction. Sample copy of Field Service Report of the vehicles working for other minor construction work is enclosed as <b>Appendix-A.</b>





S. No.	Mitigation Measures	Compliance Status
13	Ensure DG sets are provided with acoustic enclosures and exhaust mufflers.	Being complied. All DG sets working at construction site are provided with acoustic enclosure, exhaust mufflers and sufficient vertical stack height as per the CPCB Guidelines. Photo showing DG with adequate stack height is enclosed in the <b>Appendix-D</b> .
14	Ensure vehicle movement is avoided at night, and close to sensitive receptors (such as schools, hospitals, place of worships).	Complied during construction phase.
<b>Mitigation Measures for Biological Environment during Construction Phase</b>		
15	Keep a tally of trees cut.	Complied. Records have been maintained.
16	Avoid cutting of trees wherever possible.	Being Complied with.
17	Closing of trenches as soon as possible after pipeline laying, if any.	Being Complied with.
<b>Mitigation Measures for Socio-economic Environment during Construction Phase</b>		
18	Prohibit use of firewood in project camps and making use of cooking gas is mandatory.	Being Complied. Labour colony have been established within site with LPG based cooking system.
19	Regulating speed limit of the vehicles	Being regulated.



Appendix – A

Preventative Maintenance of Vehicles

**BALAJEE INFRA TECH & CONSTRUCTIONS PVT. LTD**  
**Balajee** | EHSMS Formats | Equipment Fitness Report for Vehicle & Earth Moving Equipment | Page 1 of 1

**Equipment Fitness Report for Vehicle & Earth Moving Equipment**

Name of Site : GG2AL      Make / Model : Tipper  
 Identification/Reg No : GA11T6007  
 Date : 22/03/2024      Asset code (If applicable) :  
 Inspected Team : madan/sanjiv      Owned by : Balajee

Sl. No.	Check Points	YES / NO / NA	Remarks
1	Engine condition	yes	
2	Clutch / brake / Hand Brake	yes	
3	Hydraulic System	yes	
4	Guards / Covers / Doors	yes	
5	Fastener lock pins / Keys.	yes	
6	Horn / Reverse horn / Lights/	yes	
7	Indicators / Wiper Blades	yes	
8	Operators fitness	yes	
9	Tyre pressure / Tyre condition	yes	
10	Condition of Battery and Lamps	yes	
11	Operating levers / steering	yes	
12	Gauges & warning devices	yes	
13	Fire extinguisher Provided	yes	
14	First Aid Box	yes	
15	Swing Alarm Provided	NA	
16	Pollution control Certificate Available	yes	
17	Delay start device	NO	
18	Rear side mirror available	yes	
19	Rear view camera available	NO	
20	Wheel block	yes	
21	Seat Belt	yes	
22	Perforated guard available in transit mixer?	NA	
23	'Headboard' available - In case of flatbed trailers.	yes	
24	Effectiveness of daily inspection by Driver / Operator	yes	
25	Authorized Operator photos displayed	yes	

This Vehicle/ Earth Moving Equipment has been checked for the above points and  
 Found FIT for deployment       Found UN FIT for deployment

*Sanjiv*  
(P & M Engineer)      *V.S. Madan Kumar*  
(EHSM / EHSO)

Sample copy of Field Survey Report & Maintenance Checklist for Vehicles





**Appendix - B**

**Sample PUC Certificate**

Form 59  
[ See rules 115 (2) ]

**Pollution Under Control Certificate**

Authorised by: Directorate of Transport, Government of Goa

Date: 14/11/2023 Time: 04:32:32 pm

Validity upto: 13/05/2024

Certificate SL No.:	GAPUC20242175370	Emission Norms:	Bharat Stage III
Registration No.:	TS08UD1419	Fuel:	DIESEL
Date of registration:	14/12/2016	PUC Code:	PUC/86/2021
Month & Year of Manufacturing:	10 / 2016	GSTIN:	NA
Valid Mobile Number:	XXXXXX 4707	Fees:	Rs. 118/-
MIL observation:	No		

Sr. No	Pollutant	Units	Emission limits	Measured Value
1	2	3	4	5
Idling Emission	Carbon Monoxide (CO)	percentage (%)	N/A	
	Hydrocarbon, (THC/HC)	ppm	N/A	
High idling emissions	CO	percentage (%)	N/A	
	RPM	RPM	N/A	
	Lambda	-	N/A	
Smoke Density	Light absorption coefficient	1/metre	2.45	0.680

This PUC certificate is system generated through the national register of motor vehicles.  
Note: 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://vahan.parivahan.gov.in>

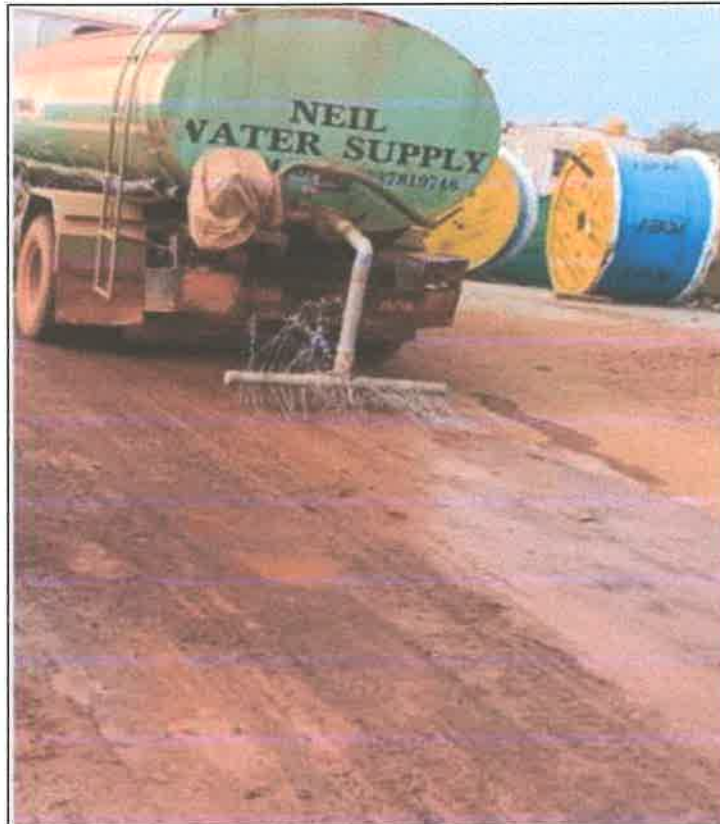
**TOO 349302**

**Snapshot of Sample PUC Certificate**



**Appendix – C**

**Dust Control Measures Implemented at Site**



**Water Sprinkling on Unpaved Haul Roads**



**Excavated materials transported by covering with tarpaulin sheet**



**Appendix - D**

**Diesel Generators with Adequate Stack Height & Acoustic Enclosure**



**DG Set with adequate Stack Height**



Appendix – E

Portable Toilet Facilities



**ANNEXURE – 1B**

**ENVIRONMENTAL MITIGATION MEASURES AS PER EIA REPORT AND COMPLIANCE STATUS**  
**(OPERATION PHASE)**  
**AS OF March 2024**

S. No.	Mitigation Measures	Compliance Status
<b>Mitigation Measures for Air Environment during Operation Phase</b>		
01	Develop peripheral green belt in the proposed Airport premises.	Noted. Compliance, as applicable for safe operation of airport, will be ensured.
02	Ensure preventive maintenance of vehicles and equipment	Being Complied. Vehicles and equipment in the operation phase are going through periodical preventive maintenance. The sample service / maintenance report is attached in <b>Appendix-I</b> .
<b>Mitigation Measures for Water Environment during Operation Phase</b>		
03	Tracking of raw water consumption through water meters	Being Complied. Raw water is being sourced from Tillari Irrigation Canal under existing MoU/approval from Water Resources Department, GoG. The raw water being pumped is measured through installed water flow meters. Sample report is provided in <b>Appendix-II</b> .





## Half Yearly EC Compliance Report (October 2023 to March 2024)



S. No.	Mitigation Measures	Compliance Status
04	Installation of rainwater harvesting structures	Complied. Rainwater harvesting structures have been installed in airside and landside as per the approval of WRD, GoG.
05	Explore opportunities for drip irrigation system for greenbelt development	Noted. Compliance to greenbelt development, as applicable for safe operation of airport, will be ensured. Drip irrigation system has been provided in landscaping & avenue plantation areas at landside. Details are provided in <b>Appendix-III</b>
<b>Mitigation Measures for Land Environment during Operation Phase</b>		
06	Develop and maintain dedicated waste storage areas	Being Complied. Integrated Solid Waste Management Facility (ISWMF) has been developed and being maintained. Collection, transportation, segregation, treatment and disposal activities of all bio-degradable and non-biodegradable wastes are being undertaken via ISWMF only. Details are provided in <b>Appendix-IV</b> .
07	Ensure hazardous waste storage areas are provided with secondary containment	Noted. Secondary containment system has been provided at hazardous waste storage areas. Details are provided in <b>Appendix-V</b> .





## Half Yearly EC Compliance Report (October 2023 to March 2024)



S. No.	Mitigation Measures	Compliance Status
<b>Mitigation Measures for Noise Environment during Operation Phase</b>		
08	On top of quota system, there is also an absolute limit on the number of flights permitted at the airport	Airport Noise Zone Mapping Report as per GSR-568 (E) has been prepared & submitted to DGCA, which has been approved by DGCA vide letter No. DGCA-27041/1/2023-AED dated 29th February 2024.
09	The noisiest aircraft use 16 points of the quota and they are called QC16s (QC = Quota Count). The next noisiest have eight points - QC8s. As planes get quieter, their points get smaller until the quietest planes have just half a point or are exempt together.	Airport Noise Zone Mapping Report as per GSR-568 (E) has been prepared & submitted to DGCA, which has been approved by DGCA vide letter No. DGCA-27041/1/2023-AED dated 29th February 2024.
10	During the night quota period the noisiest types of planes are not permitted to be scheduled. Because there is a limit on the airport's total quota of points for night time flying, this system encourages airlines who want to fly at night to use the quietest aircraft.	Airport Noise Zone Mapping Report as per GSR-568 (E) has been prepared & submitted to DGCA, which has been approved by DGCA vide letter No. DGCA-27041/1/2023-AED dated 29th February 2024.
11	Pilots are encouraged not to use reverse thrust between 23:00 and 6:00 except in the interest of safety.	Being Complied. All the Airlines have been communicated not to use reverse thrust, taking safety consideration.
<b>Mitigation Measures for Biological Environment during Operation Phase</b>		
12	Proper maintenance of green belt developed	Noted. Compliance, as applicable for safe operation of airport as per aviation safety requirements will be ensured.
13	Regulating speeding of vehicles on approach road of Airport	Noted. Speed limit boards are displayed.
<b>Mitigation Measures for Socio-economic Environment during Operation Phase</b>		
14	Ensure implementation of disaster management plan	Noted. 'Airport Emergency Response Plan' has been prepared and this is being implemented.



**Appendix-I**

**Preventive Maintenance of Vehicle and Equipment**

**GMR Goa International Airport Limited**  
 Manohar International Airport, Mopa-403512  
 T.M.T. Department  
**Job Card**

Date: 06/02/24

Job No. TMT-0224-04      Make & Type: TPS-5000SF-ROAD SWEEPER.

Veh. Reg. No. PE-12(GA-11 A: 6231)      Out-Date: 06/02/24

In-Date: 06/02/2024      Out-Km/Hrs: 1332.2 HP'S

In-Km/Hrs: 1331.01 HP'S      Name Of Mech: WASSEM KARAJGI

Name Of Driver /User: SADANAO PARAB      Name Of Supervisor: \_\_\_\_\_

S.no	Date	PM/Defects	Work Done	Sign
①	06/02/24	Performed Schedule service of 1250 Hrs /	Replaced engine oil, oil filter, primary & secondary fuel filter and fuel filter 1-1 Coil, Replaced coolant. Checked Belt's tension. Checked cell hoses found ok Checked battery & terminals Starter wiring connection Starter motor and cell electrical system found ok Run the engine checked for unusual sound. Checked for any oil, coolant leakage's all found ok.	 (WASSEM)

(GMR)  
 VITAY KUMBHAR

SP Manager-  
 PRADIP KAMBLE

Sample of Job Card and Repair Order for Vehicle







Half Yearly EC Compliance Report (October 2023 to March 2024)



VK ENTERPRISES

SERVICE REPORT



Report No. 9342

Date: 06/02/24

Name of Service Representative: <i>Vijayan</i>	Engine Model: <i>H64H33287</i>	Sr. No.: <i>N44M109508</i>
Name of Customer: <i>Thero Integrated Solution</i>	Rated Rpm: <i>-</i>	Rating: <i>-</i>
Address: <i>Mopa-COCU</i>	Equipment Make: <i>-</i>	Model: <i>-</i>
	Sr. No.: <i>-</i>	Application: <i>Sweeper truck</i>
Name of Person Contracted: <i>unstm</i>	Alternator Make: <i>-</i>	Model: <i>(ROAD SWEEPER)</i>
Location of Site: <i>Mopa airport</i>	Sr. No.: <i>-</i>	Customer Complaint Time & Date: <i>06/02/24 10:00am</i>
Contact No.: <i>7875127441</i>		Attended Time & Date: <i>06/02/24 12:50 pm</i>
		Completion Date & Time: <i>06/02/24 6:30 pm</i>

Date of Sale: \_\_\_\_\_ Date of Commissioning: \_\_\_\_\_ Hrs Run: *1332*

Type of service : Commissioning / Warranty / Maintenance / Courtesy / Paid

Customer's Complaint : *maintenance*

Observation: *found ok*

Work Done : *changed lubricant, lub oil filter, fuel filter - primary and secondary chamber drained all coolant and filled new coolant, checked belt tension, wiring hoses, clamps, found ok. Inspected the engine lubricant found ok.*

Recommendation:

Performance Data

Lub. Oil Brand & Grade: <i>IPPAPER XLE</i>					
Oil Press : <i>-</i>	kg/cm <sup>2</sup>	Rpm/Hz :			
Lub. Oil Temp : <i>-</i>	°C	Voltage :	RY:	YB:	RB:
Fresh Water Temp.: <i>-</i>	°C	Amps :	R :	Y :	B :
Coolant Make : <i>COOL HD</i>		PF :		KW :	

Customer's Remarks

Name of Service Representative

This is to Certify that Mr

*Vijayan / Vijayan*

attended the above engine and completed the job to our satisfaction.

Customer's Name & Signature (SEAL)

*Debo Kumar*



VK ENTERPRISES Authorized Industrial Engine Service Dealer  
 "Leoniza Gomes Mansion", Rua de Saadade, Pajiloni, Margao 403 601 Goa. Tel : (0832) 2714567, 2732715  
 w/s "GUMUKRUPA" H. No. 557, Dandevado, Chitachinim, Salcete 403 715 GOA.  
 Tel. : (0832) 2863532, 2863533 E-mail : upaengg@gmail.com / vhegoa@rediffmail.com

Sample of Service Report for the Vehicle




uds		Road Sweeper - Scheduled Maintenance		GAR	
		DATE: 06 FEB 2024			
VEHICLE ID No: PE-12 GA-11N-6231				START TIME: 3:35 PM	
VEHICLE Name: ROAD SWEEPER				END TIME: 6:00 PM	
DIESEL LEVEL: 50%					
VEHICLE HRS: 1331.10 HR'S					
CR. No	CHECK POINTS / WORK DESCRIPTION	OBSERVATIONS/ACTION		REMARKS IF ANY :	
1	Replace oil filter	Replaced oil filter with new one			
2	Replace fuel filter primary	Replaced fuel filter with new one			
3	Replace fuel filter secondary	Replaced fuel filter secondary with new one.			
4	Replace fuel filter coil type	Replaced fuel filter coil type replaced with new one.			
5	Replace engine oil	Replaced engine oil with new one.			
6	Check and record max temp. 90% of water	60°C temp of water checked.			
7	Check battery condition and terminals	Checked battery condition & terminals found ok.			
8	Check engine belt tension	Checked engine belt tension found ok.			
9	Check carbon brushes of alternator	checked carbon brushes of alternator found ok.			
10	Check for any fluid leakage/Check carbon brushes of alternator	check for any leakage NO fluid leakage found.			
11	Check all electrical system and switches	checked all electrical system & switches found working Starter checked			
12	Greasing of all hinges	Greasing of all hinges done.			
13	Check water hose/tightened if found loose	checked water hose tightened			
14	Tightened the engine foundation mounting bolts	Tightened the engine foundation mounting bolts			
15	Tightened the radiator mounting bolts	Checked & tightened the radiator mounting bolts			
 Technician Signature WASIM		 UDS-TM/Charga System PRADIP KAMBLE		 GMR-TM Dept. Signature VISHAY KUMAR. R	

Sample Copy of Periodical Checklist for Vehicle Maintenance



**Appendix-II**

**Raw Water Consumption**



Office of the Assistant Engineer  
Sub Division IV,  
Works Division VII,  
Water Resources Department,  
Dhargal, Pernem, Goa.

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**Bill Summary**

<b>Bill To</b>	<b>Total Due</b>	<b>Due Date</b>
GMR Goa International Airport Ltd 1st Floor, Mathura One NH 17 Porvorim Goa 403521 Mobile Number: 8958694524	<b>₹919,940.00</b>	<b>05 / May / 2024</b>

---

**Break-up of Charges**

<b>Previous Bill Amount</b>	-	<b>Payments</b>	+	<b>Current Charges</b>	=	<b>Total Amount Due</b>
₹ 25,96,700		₹ 25,96,700		₹ 9,19,940		₹ 919,940.00

---

**Bill Details & Payment History**

Current Bill	Past Bills																																				
<b>Invoice No:</b> WRD-GGWC-2024-015014 <b>Invoice Date:</b> 05 / Apr / 2024 <b>Billing Rate:</b> ₹ 20.0 per CuM (1000L) <b>Billing Period:</b> 01/03/24 - 31/03/24 (31 days)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Bill No</th> <th>Amount</th> <th>Arrears</th> <th>Paid</th> <th>C/F</th> </tr> </thead> <tbody> <tr> <td>08/03/24</td> <td>WRD-GGWC-2024-014489</td> <td>₹ 25,96,700</td> <td>₹ 0</td> <td>✓</td> <td>0</td> </tr> <tr> <td>02/12/23</td> <td>WRD-GGWC-2023-014062</td> <td>₹ 24,06,100</td> <td>₹ 0</td> <td>✓</td> <td>0</td> </tr> <tr> <td>02/08/23</td> <td>WRD-GGWC-2023-012853</td> <td>₹ 6,86,620</td> <td>₹ 0</td> <td>✓</td> <td>0</td> </tr> <tr> <td>02/08/23</td> <td>WRD-GGWC-2023-012852</td> <td>₹ 35,00,280</td> <td>₹ 0</td> <td>✓</td> <td>0</td> </tr> <tr> <td>21/04/23</td> <td>WRD-GGWC-2023-011356</td> <td>₹ 1,70,18,480</td> <td>₹ 0</td> <td>✓</td> <td>0</td> </tr> </tbody> </table>	Date	Bill No	Amount	Arrears	Paid	C/F	08/03/24	WRD-GGWC-2024-014489	₹ 25,96,700	₹ 0	✓	0	02/12/23	WRD-GGWC-2023-014062	₹ 24,06,100	₹ 0	✓	0	02/08/23	WRD-GGWC-2023-012853	₹ 6,86,620	₹ 0	✓	0	02/08/23	WRD-GGWC-2023-012852	₹ 35,00,280	₹ 0	✓	0	21/04/23	WRD-GGWC-2023-011356	₹ 1,70,18,480	₹ 0	✓	0
Date	Bill No	Amount	Arrears	Paid	C/F																																
08/03/24	WRD-GGWC-2024-014489	₹ 25,96,700	₹ 0	✓	0																																
02/12/23	WRD-GGWC-2023-014062	₹ 24,06,100	₹ 0	✓	0																																
02/08/23	WRD-GGWC-2023-012853	₹ 6,86,620	₹ 0	✓	0																																
02/08/23	WRD-GGWC-2023-012852	₹ 35,00,280	₹ 0	✓	0																																
21/04/23	WRD-GGWC-2023-011356	₹ 1,70,18,480	₹ 0	✓	0																																


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**Meterwise Charges**

Sr.	Registration No. / Meter No.	Current Reading	Last Reading	Units Used	Rate (₹)	Amount
1.	0 / 120407158	1323806	1277809	45997	20	₹ 9,19,940.00

---

**Payments & Help**

Code	Payment Options & Support	Legend
 <b>bhdee</b>	<p>Pay online at <a href="http://www.goawrd.gov.in/payments/bhdee">www.goawrd.gov.in/payments/bhdee</a></p> <p>Pay by DD / Cash (upto ₹5000/-) at the above mentioned office. DDs may be drawn in favour of <b>The Executive Engineer WD-VII WRD Pernem</b>. Payments may not be accepted after the due date.</p> <p>Incase of queries, kindly contact the concerned Asst. Engineer at the address mentioned above or drop an email at: <a href="mailto:eo-wrd.goa@nic.in">eo-wrd.goa@nic.in</a>.</p>	<p>✓ Past bills that were paid.</p> <p>✗ Past bills that have not been paid. Although these were not paid, that amount has already been added to the next bill hence is not added to the total again.</p> <p>⌚ Immediate previous bill that was not paid and hence included as arrears.</p> <p>⊖ Bill amount has been adjusted in lieu of advances received.</p>

As per Notification S/4/SE-CPO-WRD/2020-21/437 published in the Official Gazette Series I No. 40 of Govt of Goa dated 31/12/2020, the Ground Water Consumption Charges have been revised from the date of publication.

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This is system generated report and does not require signature & stamp.

**Raw Water Consumption through Water Meter (March 2024) – Sample Report**



**Appendix-III**  
**Drip Irrigation for Landscaping & Avenue Plantation**



**Drip Irrigation for Landscaping & Avenue Plantation**



**Sprinkler Irrigation for Landscaping & Avenue Plantation**



**Appendix-IV**  
**Integrated Solid Waste Management Facility**

Integrated Solid Waste Management Facility (ISWMF) has been provided within the airport site. All bio-degradable and non-biodegradable waste are being collected, transported, segregated, treated and disposed via this facility only.



**Integrated Solid Waste Management Facility**

**Collection:** From triple waste bins (offices, terminal, deplaned aircraft waste, retails, cargo, etc.)



**Transportation:** To the Integrated Solid Waste Management Facility by Electrical Vehicle



**Segregation:** Through Material Recovery Facility (MRF)



**Treatment:** Food Waste - Through Organic Waste Composter



**Disposal:** – Recyclable - Authorised Vendor & Non-recyclable – Send as RDF to cement kilns



**Appendix-VI**  
**Secondary Containment at Hazardous Waste Storage Area**



**Provision made for Category-wise Storage of Hazardous Waste**





# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 418 525.  
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

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Mopa Boundry - Goa State (G-A1)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	87
Average Wind Speed (km/hr)	62	Average Wind direction (Deg)	305
Latitude	N 15°45'51.1"	Longitude	E 73°56'32.4"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2253	37.3	60.21	13.31	< 6.0	< 9.0	0.27	123.1	0.08	< 1.0
2	05.10.2023	GA/23/2278	40.0	58.63	14.14	< 6.0	< 9.0	0.31	115.9	0.04	< 1.0
3	09.10.2023	GA/23/2308	30.2	58.48	12.14	< 6.0	< 9.0	0.40	122.0	0.03	< 1.0
4	12.10.2023	GA/23/2322	31.9	56.90	14.80	< 6.0	< 9.0	0.35	128.0	0.05	< 1.0
5	16.10.2023	GA/23/2342	29.2	48.54	12.72	< 6.0	< 9.0	0.33	115.1	0.07	< 1.0
6	19.10.2023	GA/23/2357	31.9	54.39	14.55	< 6.0	< 9.0	0.51	120.3	0.01	< 1.0
7	23.10.2023	GA/23/2371	29.2	64.27	12.39	< 6.0	< 9.0	0.24	111.8	0.06	< 1.0
8	26.10.2023	GA/23/2385	36.7	64.60	13.47	< 6.0	< 9.0	0.30	126.3	0.08	< 1.0
9	30.10.2023	GA/23/2408	37.1	68.09	14.76	< 6.0	< 9.0	0.49	135.1	0.03	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2005	IS 5162 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

Note :

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

For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 9	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1256-L-22	07/01/2023	07/01/2024
Respirable Dust Sampler Sr. No. 1544-DTJ-2019	07/01/2023	07/01/2024
Gaseoue Sampler Sr. No. 210-B-2022	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



# 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

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Shemecheadvan Goa State (G-A2)		
Average Ambient Temperature (°C)	31	Average Humidity (%)	82
Average Wind Speed (km/hr)	60.2	Average Wind direction (Deg)	316
Latitude	N 15°42'06.1"	Longitude	E 73°49'21.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2252	24.1	56.74	13.56	< 6.0	< 9.0	0.41	121.5	0.05	< 1.0
2	05.10.2023	GA/23/2277	29.0	51.64	12.93	< 6.0	< 9.0	0.30	116.2	0.04	< 1.0
3	09.10.2023	GA/23/2307	27.8	47.61	11.39	< 6.0	< 9.0	0.47	121.0	0.03	< 1.0
4	12.10.2023	GA/23/2321	35.5	59.48	13.22	< 6.0	< 9.0	0.39	118.1	0.06	< 1.0
5	16.10.2023	GA/23/2341	31.1	50.08	12.97	< 6.0	< 9.0	0.72	120.1	0.05	< 1.0
6	19.10.2023	GA/23/2356	34.9	55.11	13.60	< 6.0	< 9.0	0.42	115.1	0.02	< 1.0
7	23.10.2023	GA/23/2370	28.9	51.10	14.85	< 6.0	< 9.0	0.29	116.9	0.05	< 1.0
8	26.10.2023	GA/23/2384	31.9	63.48	15.80	< 6.0	< 9.0	0.34	132.2	0.08	< 1.0
9	30.10.2023	GA/23/2407	35.4	54.65	13.72	< 6.0	< 9.0	0.19	103.2	0.03	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

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- For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. &	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 325-DTE-2015	17/02/2023	16/02/2024
Respirable Dust Sampler Sr. No. 476-A-23	07/01/2023	07/01/2024
Gaseous Sampler Sr. No. 471-L-22	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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## INDUSTRIAL ANALYSTS & CONSULTANTS

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

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Nagzar – Goa State (G-A3)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	86
Average Wind Speed (km/hr)	60	Average Wind direction (Deg)	288
Latitude	N 15°45'37.3"	Longitude	E 73°53'14.22"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2245	38.1	58.49	15.14	< 6.0	< 9.0	0.34	122.2	0.03	< 1.0
2	05.10.2023	GA/23/2270	59.0	73.59	18.96	< 6.0	< 9.0	0.86	131.8	0.03	< 1.0
3	09.10.2023	GA/23/2300	53.2	59.54	15.68	< 6.0	< 9.0	0.33	125.1	0.02	< 1.0
4	12.10.2023	GA/23/2314	61.9	67.47	16.63	< 6.0	< 9.0	0.71	133.1	0.04	< 1.0
5	16.10.2023	GA/23/2334	49.0	60.43	13.68	< 6.0	< 9.0	0.60	124.7	0.03	< 1.0
6	19.10.2023	GA/23/2349	55.8	67.82	15.09	< 6.0	< 9.0	0.33	120.1	0.02	< 1.0
7	23.10.2023	GA/23/2363	50.4	60.57	14.93	< 6.0	< 9.0	0.51	122.5	0.07	< 1.0
8	26.10.2023	GA/23/2377	55.3	66.08	17.26	< 6.0	< 9.0	0.59	122.0	0.05	< 1.0
9	30.10.2023	GA/23/2400	59.9	70.17	17.55	< 6.0	< 9.0	0.78	132.1	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 1	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 934-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 2832-DTB-2020	17/02/2023	16/02/2024
Gaseous Sampler Sr. No. 8888-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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

## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		

### AMBIENT AIR LOCATION

Location of Ambient Air Station	Purva Casarvarnem - Goa State (G-A4)		
Average Ambient Temperature (°C)	31	Average Humidity (%)	84
Average Wind Speed (km/hr)	70	Average Wind direction (Deg)	290
Latitude	N 15°41'41.9"	Longitude	E 73°50'16.6"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2246	25.7	46.36	11.81	< 6.0	< 9.0	0.27	102.8	0.02	< 1.0
2	05.10.2023	GA/23/2271	27.7	60.12	14.55	< 6.0	< 9.0	0.64	121.7	0.03	< 1.0
3	09.10.2023	GA/23/2301	25.1	44.67	11.27	< 6.0	< 9.0	0.50	120.0	0.03	< 1.0
4	12.10.2023	GA/23/2315	26.9	52.24	15.34	< 6.0	< 9.0	0.57	121.1	0.04	< 1.0
5	16.10.2023	GA/23/2335	19.4	46.34	14.85	< 6.0	< 9.0	0.50	121.3	0.07	< 1.0
6	19.10.2023	GA/23/2350	22.7	54.66	10.27	< 6.0	< 9.0	0.56	121.0	0.03	< 1.0
7	23.10.2023	GA/23/2364	18.8	45.94	11.23	< 6.0	< 9.0	0.56	114.2	0.07	< 1.0
8	26.10.2023	GA/23/2378	22.6	59.68	13.68	< 6.0	< 9.0	0.77	140.5	0.04	< 1.0
9	30.10.2023	GA/23/2401	25.1	58.05	12.14	< 6.0	< 9.0	0.44	129.0	0.04	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 2	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 936-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 2842-DTB-2020	19/02/2023	18/02/2024
Gaseous Sampler Sr. No. 6886-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





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

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		
<b>AMBIENT AIR LOCATION</b>			
Location of Ambient Air Station	Khajne Amere Porscodem - Goa State (G-A5)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	90
Average Wind Speed (km/hr)	62.5	Average Wind direction (Deg)	312
Latitude	N 15°40'38.0"	Longitude	E 73°46'21.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2247	5.2	25.20	8.69	< 6.0	< 9.0	0.23	138.6	0.02	< 1.0
2	05.10.2023	GA/23/2272	6.2	33.94	9.27	< 6.0	< 9.0	0.36	115.3	0.02	< 1.0
3	09.10.2023	GA/23/2302	4.8	25.40	8.23	< 6.0	< 9.0	0.56	125.0	0.02	< 1.0
4	12.10.2023	GA/23/2316	6.0	31.87	7.07	< 6.0	< 9.0	0.93	138.3	0.04	< 1.0
5	16.10.2023	GA/23/2336	5.1	26.75	8.11	< 6.0	< 9.0	0.71	122.8	0.07	< 1.0
6	19.10.2023	GA/23/2351	6.0	31.17	7.57	< 6.0	< 9.0	0.72	125.0	0.03	< 1.0
7	23.10.2023	GA/23/2365	5.0	24.33	8.86	< 6.0	< 9.0	0.94	136.2	0.04	< 1.0
8	26.10.2023	GA/23/2379	6.2	30.23	10.73	< 6.0	< 9.0	0.69	130.5	0.07	< 1.0
9	30.10.2023	GA/23/2402	4.9	33.15	9.40	< 6.0	< 9.0	0.26	118.8	0.05	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 3	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 942-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 2841-DTB-2020	19/02/2023	18/02/2024
Gaseous Sampler Sr. No. 6904-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Rajvil Wada Torxem - Goa State (G-A6)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	90
Average Wind Speed (km/hr)	65	Average Wind direction (Deg)	305
Latitude	N 15°48'40.0"	Longitude	E 73°52'50.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

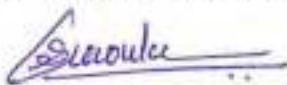
Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2250	18.0	45.95	12.89	< 6.0	< 9.0	0.25	125.5	0.04	< 1.0
2	05.10.2023	GA/23/2275	19.9	48.21	11.02	< 6.0	< 9.0	0.74	120.2	0.04	< 1.0
3	09.10.2023	GA/23/2305	15.9	41.38	10.65	< 6.0	< 9.0	0.39	120.0	0.03	< 1.0
4	12.10.2023	GA/23/2319	16.9	46.73	11.27	< 6.0	< 9.0	0.67	134.3	0.07	< 1.0
5	16.10.2023	GA/23/2339	14.7	39.75	10.85	< 6.0	< 9.0	0.68	122.1	0.05	< 1.0
6	19.10.2023	GA/23/2354	23.0	48.89	12.18	< 6.0	< 9.0	0.67	130.0	0.02	< 1.0
7	23.10.2023	GA/23/2368	18.8	41.51	13.22	< 6.0	< 9.0	0.58	115.9	0.06	< 1.0
8	26.10.2023	GA/23/2382	20.9	47.40	11.85	< 6.0	< 9.0	0.81	148.6	0.02	< 1.0
9	30.10.2023	GA/23/2405	21.9	52.68	12.39	< 6.0	< 9.0	0.33	118.9	0.05	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2008	IS 5182 (Part XXIV) 2006	IS 5182 (Part 9) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. &	Calibrated On	Calibration Due Date
Respirable Dust Sampler Sr. No. 1329-R-273-DTC-2015	17/02/2023	16/02/2024
Gaseous Sampler Sr. No. 0773-DTB-2020	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Satarda - Maharashtra State (M-A1)		
Average Ambient Temperature (°C)	30	Average Humidity (%)	81
Average Wind Speed (km/hr)	56.4	Average Wind direction (Deg)	268
Latitude	N 15°43'01.3"	Longitude	E 73°46'00.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2248	17.7	36.68	10.65	< 6.0	< 9.0	0.34	130.0	0.05	< 1.0
2	05.10.2023	GA/23/2273	16.3	46.59	11.85	< 6.0	< 9.0	0.34	123.3	0.03	< 1.0
3	09.10.2023	GA/23/2303	15.6	35.04	10.40	< 6.0	< 9.0	0.45	110	0.03	< 1.0
4	12.10.2023	GA/23/2317	28.8	42.80	12.89	< 6.0	< 9.0	0.73	134.3	0.03	< 1.0
5	16.10.2023	GA/23/2337	22.1	33.14	9.44	< 6.0	< 9.0	0.42	112.8	0.05	< 1.0
6	19.10.2023	GA/23/2352	19.5	40.68	10.19	< 6.0	< 9.0	0.39	120.2	0.02	< 1.0
7	23.10.2023	GA/23/2366	18.0	37.69	11.02	< 6.0	< 9.0	0.44	120.7	0.07	< 1.0
8	26.10.2023	GA/23/2380	21.3	39.33	12.35	< 6.0	< 9.0	0.62	122.5	0.08	< 1.0
9	30.10.2023	GA/23/2403	22.9	45.76	11.31	< 6.0	< 9.0	0.30	134.2	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

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- Customer complaint register is available at laboratory.
- Calibration details of the equipment's used in monitoring and / or analysis are given in the analysis report.

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



CHECKED BY

Recognised by Central Pollution Control Board (MoEF and CC, Govt. of India), under the EP Act, 1986, valid upto 21st August 2025. ISO 9001 : 2015 and ISO 45001 : 2018 Certified.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 4	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1163-E-22	15/05/2023	15/05/2024
Respirable Dust Sampler Sr. No. 476-A-23	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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## INDUSTRIAL ANALYSTS & CONSULTANTS

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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Dingane – Maharashtra State (M-A2)		
Average Ambient Temperature (°C)	30	Average Humidity (%)	92
Average Wind Speed (km/hr)	54.3	Average Wind direction (Deg)	311
Latitude	N 15°46'12.3"	Longitude	E 73°49'20.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2251	3.9	22.67	9.15	< 6.0	< 9.0	0.56	141.4	0.05	< 1.0
2	05.10.2023	GA/23/2276	4.9	29.81	10.02	< 6.0	< 9.0	0.65	137.5	0.04	< 1.0
3	09.10.2023	GA/23/2306	3.7	26.86	8.82	< 6.0	< 9.0	0.58	130.0	0.03	< 1.0
4	12.10.2023	GA/23/2320	2.6	21.20	10.94	< 6.0	< 9.0	0.33	114.8	0.05	< 1.0
5	16.10.2023	GA/23/2340	2.5	21.23	8.32	< 6.0	< 9.0	0.45	130.0	0.06	< 1.0
6	19.10.2023	GA/23/2355	2.8	29.87	9.23	< 6.0	< 9.0	0.61	125.2	0.02	< 1.0
7	23.10.2023	GA/23/2369	2.4	21.67	9.07	< 6.0	< 9.0	0.37	120.4	0.05	< 1.0
8	26.10.2023	GA/23/2383	2.8	27.92	10.31	< 6.0	< 9.0	0.37	124.9	0.06	< 1.0
9	30.10.2023	GA/23/2406	3.5	33.47	8.69	< 6.0	< 9.0	0.37	123.4	0.02	< 1.0
NAAQS LIMITS *			—	100	60	80	80	2	—	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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- Customer complaint register is available at laboratory.
- Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



CHECKED BY

Recognised by Central Pollution Control Board (MoEF and CC, Govt. of India), under the EP Act, 1986, valid upto 21st August 2025. ISO 9001 : 2015 and ISO 45001 : 2018 Certified.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 7	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1955-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 1284-R-228-DTK-2014	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





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### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/11/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	October 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Netarde - Maharashtra State (M-A3)		
Average Ambient Temperature (°C)	30	Average Humidity (%)	90
Average Wind Speed (km/hr)	50.1	Average Wind direction (Deg)	262
Latitude	N 15°46'11.7"	Longitude	E 73°53'47.0"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.10.2023	GA/23/2249	2.6	20.78	7.32	< 6.0	< 9.0	0.76	142.6	0.04	< 1.0
2	05.10.2023	GA/23/2274	3.5	28.25	8.57	< 6.0	< 9.0	0.29	124.3	0.03	< 1.0
3	09.10.2023	GA/23/2304	2.5	26.08	5.95	< 6.0	< 9.0	0.22	115.0	0.02	< 1.0
4	12.10.2023	GA/23/2318	3.5	20.02	6.24	< 6.0	< 9.0	0.53	123.3	0.07	< 1.0
5	16.10.2023	GA/23/2338	3.1	17.02	5.78	< 6.0	< 9.0	0.56	120.2	0.06	< 1.0
6	19.10.2023	GA/23/2353	2.2	21.92	6.82	< 6.0	< 9.0	0.50	110.1	0.02	< 1.0
7	23.10.2023	GA/23/2367	1.6	18.99	8.19	< 6.0	< 9.0	0.38	124.4	0.06	< 1.0
8	26.10.2023	GA/23/2381	2.3	14.22	7.90	< 6.0	< 9.0	0.50	126.5	0.02	< 1.0
9	30.10.2023	GA/23/2404	2.5	25.45	5.74	< 6.0	< 9.0	0.28	130.7	0.04	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 15

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- Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



**CHECKED BY**

Recognised by Central Pollution Control Board (MoEF and CC, Govt. of India), under the EP Act, 1986, valid upto 21st August 2025. ISO 9001 : 2015 and ISO 45001 : 2018 Certified.

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 5	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 940-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 477-A-23	07/01/2023	07/01/2024
Gaseous Sampler Sr. No. 470-L-22	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





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

### TEST REPORT

NOISE LEVEL MONITORING REPORT													
Date of Issue		04/11/2023											
Name of Client		M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED											
Address of Client		ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.											
Sampling Plan		GLPL/QF/7.3/06				Sampling Procedure No.				GLPL/SOP/AA/17			
Sample Collected By		GLPL Representative											
AMBIENT AIR NOISE POLLUTION MONITORING													
Sr. No.	Date of Sampling	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)				
						L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>		
1	07.10.2023	GA/23/2290	G-N1	I	Mopa Boundary	30.5	95.0	66.2	34.2	74.7	49.6		
2	07.10.2023	GA/23/2289	G-N2	I	Shemecheadvan	35.3	85.4	61.8	37.1	87.1	59.7		
3	06.10.2023	GA/23/2279	G-N3	C	Nagzar	40.3	92.6	56.6	38.7	76.0	49.7		
4	06.10.2023	GA/23/2280	G-N4	R	Purva Casarvamem	30.8	91.1	50.5	30.3	82.5	38.8		
5	11.10.2023	GA/23/2313	G-N5	R	Chandel	30.1	86.3	53.4	30.7	87.3	44.0		
6	17.10.2023	GA/23/2345	G-N6	R	Khajne Amere Porscodem	31.2	82.6	51.4	34.6	71.9	43.4		
7	11.10.2023	GA/23/2312	G-N7	R	Warkhand	31.8	77.1	52.1	31.5	73.6	44.1		
8	13.10.2023	GA/23/2325	G-N8	C	Rajvil Wada Torxem	30.2	83.7	51.9	31.5	73.7	44.5		
9	13.10.2023	GA/23/2324	G-N9	C	Village Panchayat Tambovem - Mopa - Ugvem	32.1	93.8	63.8	34.3	72.4	52.6		
10	17.10.2023	GA/23/2344	M-N1	R	Satarde	30.6	80.5	53.3	30.8	70.1	43.2		
11	10.10.2023	GA/23/2310	M-N2	R	Dingane	30.3	90.2	47.4	30.9	71.6	35.1		
12	10.10.2023	GA/23/2311	M-N3	R	Nelarde	31.2	93.2	52.9	30.9	78.1	43.9		
I – Industrial Zone, C – Commercial Zone, R – Residential Zone													
1] 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 (I)		75		70							
(B)		Commercial Area (C)		65		55							
(C)		Residential Area (R)		55		45							
(D)		Silence Zone (S)		50		40							
2] Day time to reckoned in between 6:00 am to 10 pm and night time is reckoned in between 10:00 pm to 06:00 am													
3] *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.													
4] "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.													
5] Leq : It is the energy mean of the noise level over a specified period.													
<b>Note :</b> 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. 5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.													
For GADARK LAB PVT. LTD.													
 <b>AUTHORISED SIGNATORY</b> <b>[SACHIN B. GAONKAR]</b>								 <b>CHECKED BY</b>					

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Equipment Name</b>	<b>Callbrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 554067	16/05/2023	16/05/2024

<b>Equipment Name</b>	<b>Callbrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 546176	23/06/2023	23/06/2024



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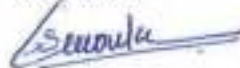
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1739	Report Date	17/10/2023	
Client Name & Address	GMR Goa International Airport Limited. Administrative Block Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem Mopa, North Goa • 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.1	49
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Admin Ground Floor			
Sampling Details	Admin Ground Floor Fountain Water Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.79	-	6.5 – 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.3	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	16.22	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	54	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	12.08	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	1.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	34	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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Page 1 of 3



# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/23/1739	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

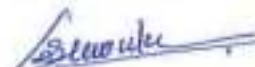
#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.076	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	0.001	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	7.21	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	3.89	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	4.4	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 418 525.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

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Tel.: (022) 2577 7089 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

Report No.	GW/23/1739	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa. North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

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### Note:

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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/08/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/08/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	12/10/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1740		Report Date	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated	Environmental Condition of Lab	Temp °C	Humidity %
	12/10/2023		24.1	49
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No	APHA 1060	
Sampling Point	Café Gox			
Sampling Details	Café Gox Water Fountain Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container:	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.84	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	14.18	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	56	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	11.07	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	36	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/23/1740	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.074	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	0.004	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	0.004	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	8.02	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	3.89	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	4.6	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.7	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/23/1740	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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Page 3 of 3

### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 <sup>o</sup> C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 <sup>o</sup> C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	12/10/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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

## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1741	Report Date	17/10/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.1	49
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1080	
Sampling Point	WTP RO			
Sampling Details	WTP RO Inlet Water Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.95	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	12.16	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	57	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	12.08	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	1.00	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	36	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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

### TEST REPORT

Report No	GW/23/1741	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachivadi Road, Nagzar, Taluka Pernem, Mopa. North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.070	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	0.004	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	0.001	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	7.21	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	4.38	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	3.8	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.8	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/23/1741	Report Date	17/10/2023
Order / Reference	A& Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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Page 3 of 3

### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207005	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207018	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	12/10/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





# GADARK LAB PVT. LTD.

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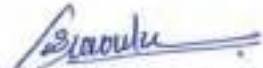
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1744	Report Date	17/10/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C 24.1	Humidity % 49
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	PTB L1			
Sampling Details	PTB L1 Water Fountain Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.67	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	4.05	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	30	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	7.05	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.50	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.058	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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## INDUSTRIAL ANALYSTS & CONSULTANTS

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## TEST REPORT

Report No.	GW/23/1744	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

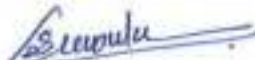
### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.042	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	0.005	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	0.001	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	2.40	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.92	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.2	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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## TEST REPORT

Report No.	GW/23/1744	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachlwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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### Note:

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5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/T.S.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ACP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	12/10/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1745		Report Date	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.1	49
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	PTB Fisherman			
Sampling Details	PTB Fisherman Water Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.49	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	4.05	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	28	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	6.04	mg/lit	250.00	APHA 4500 Cl B
9	Sulphate as SO <sub>4</sub>	0.50	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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## TEST REPORT

Report No.	GW/23/1745	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

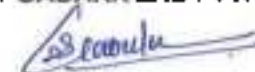
### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.042	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	0.005	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	0.002	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	3.21	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	0.001	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.44	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.56	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	0.001	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/23/1745	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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Page 3 of 3

### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/08/2023	28/08/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/i	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207005	29/08/2023	28/08/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207018	29/08/2023	28/08/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	12/10/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/08/2023	28/08/2024
11.	Water Bath.	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/08/2024





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## INDUSTRIAL ANALYSTS & CONSULTANTS

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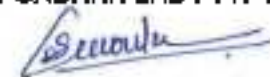
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1746		Report Date	17/10/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.1	49
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	International Arrival			
Sampling Details	International Arrival Water Fountain Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.55	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	2.03	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	25	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	5.03	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/23/1746	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

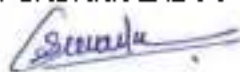
#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Ni	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.042	mg/lit	45.00	APHA 4500 NO <sub>2</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	0.020	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	0.002	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	0.004	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	0.002	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.92	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	0.001	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.94	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	0.001	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT


Report No.	GW/23/1748	Report Date	17/10/2023
Order / Reference	As Per Dated 12/10/2023	Sample Received on	13/10/2023
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP - OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	12/10/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1742	Report Date	17/10/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C	Humidity %
			30.5	74
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Inlet			
Sampling Details	STP Inlet Water Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Method
1	pH	6.17	-	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	1524	mg/lit	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	825	mg/lit	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	668	mg/lit	APHA 2540 D
5	Oil & Grease (O & G)	14	mg/lit	APHA 5520 B
6	Ammonia	78.06	mg/lit	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	87.92	mg/lit	APHA 4500-Norg

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Method
8	Fecal Coliform at 44.5°C for 24 hrs.	1600	MPN Index/100ml	APHA 9221 E

End

For GADARK LAB PVT. LTD.

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[SACHIN B. GAONKAR]



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### Note:

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3. Samples will be preserved for a period 15 days from the delivery of Test Report.
4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	25/05/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

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

## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1743	Report Date	17/10/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 12/10/2023	Environmental Condition of Lab	Temp °C	Humidity %
			30.5	74
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Outlet			
Sampling Details	STP Outlet Water Sample	Date of Collection	12/10/2023	
Sample Collected by	GLPL Representative	Sample Received On	13/10/2023	
Analysis Started On	13/10/2023	Analysis Completed On	17/10/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Limits	Method
1	pH	6.81	-	5.5 - 9.0	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	37	mg/lit	50.00	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	7	mg/lit	10.00	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	14	mg/lit	20.00	APHA 2540 D
5	Oil & Grease (O & G)	< 0.1	mg/lit	10.00	APHA 5520 B
6	Ammonia	2.02	mg/lit	5.00	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	8.18	mg/lit	10.00	APHA 4500-Norg

### Microbiological Parameters:

8	Fecal Coliform at 44.5°C for 24 hrs.	48	MPN Index/100ml	100	APHA 9221 E
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End

For GADARK LAB PVT. LTD.



AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	25/05/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024





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## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPLQF/7.3/08	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

### AMBIENT AIR LOCATION

Location of Ambient Air Station	Mopa Boundry - Goa State (G-A1)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	78
Average Wind Speed (km/hr)	85	Average Wind direction (Deg)	308
Latitude	N 15°45'51.1"	Longitude	E 73°56'32.4"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2441	42.8	57.78	12.27	< 6.0	< 9.0	0.49	122.4	0.05	< 1.0
2	06.11.2023	GA/23/2500	49.0	66.35	13.60	< 6.0	< 9.0	0.29	126.2	0.03	< 1.0
3	09.11.2023	GA/23/2532	55.5	56.37	17.26	< 6.0	< 9.0	0.64	122.0	0.01	< 1.0
4	13.11.2023	GA/23/2578	44.4	62.88	16.05	< 6.0	< 9.0	0.28	122.0	0.04	< 1.0
5	16.11.2023	GA/23/2597	38.5	52.02	14.10	< 6.0	< 9.0	0.50	122.1	0.03	< 1.0
6	20.11.2023	GA/23/2663	31.9	56.33	16.59	< 6.0	< 9.0	0.72	122.1	0.04	< 1.0
7	23.11.2023	GA/23/2698	33.7	63.70	15.47	< 6.0	< 9.0	0.72	128.0	0.07	< 1.0
8	27.11.2023	GA/23/2720	42.7	53.36	15.30	< 6.0	< 9.0	0.22	115.1	0.07	< 1.0
9	30.11.2023	GA/23/2737	44.4	64.01	16.47	< 6.0	< 9.0	0.48	127.3	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GL Method	IS 5182 (Part XXIII) 2004	LPA Method 16

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

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 9	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1256-L-22	07/01/2023	07/01/2024
Respirable Dust Sampler Sr. No. 1544-DTJ-2019	07/01/2023	07/01/2024
Gaseoue Sampler Sr. No. 210-B-2022	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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Tel.: (022) 2577 7089 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7,3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Shomocheadvan Goa State (G-A2)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	80
Average Wind Speed (km/hr)	62.3	Average Wind direction (Deg)	311
Latitude	N 15°42'06.1"	Longitude	E 73°49'21.5"
Instrument Used	FPS (APM - 650)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2440	33.1	58.97	15.59	< 6.0	< 9.0	0.41	123.0	0.05	< 1.0
2	06.11.2023	GA/23/2499	34.5	66.43	19.21	< 6.0	< 9.0	0.32	125.9	0.04	< 1.0
3	09.11.2023	GA/23/2531	36.0	55.76	19.96	< 6.0	< 9.0	0.67	115.1	0.04	< 1.0
4	13.11.2023	GA/23/2577	31.1	61.33	15.39	< 6.0	< 9.0	0.33	130.2	0.05	< 1.0
5	16.11.2023	GA/23/2598	29.0	55.72	16.18	< 6.0	< 9.0	0.56	121.0	0.03	< 1.0
6	20.11.2023	GA/23/2662	27.5	51.47	14.35	< 6.0	< 9.0	0.50	120.0	0.05	< 1.0
7	23.11.2023	GA/23/2697	27.5	55.85	16.51	< 6.0	< 9.0	0.61	125.2	0.06	< 1.0
8	27.11.2023	GA/23/2719	28.9	60.47	13.15	< 6.0	< 9.0	0.61	132.1	0.07	< 1.0
9	30.11.2023	GA/23/2736	30.8	65.16	18.17	< 6.0	< 9.0	0.30	120.9	0.02	< 1.0
NAAQS LIMITS *			—	100	60	80	80	2	—	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5132 (Part I)	IS 5182 (Part XXII) 2005	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5162 (Part VI) 2003	IS 5182 (Part X) 1996	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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  - Customer complaint register is available at laboratory.
  - Calibration details of the equipments used in monitoring and/or analysis is back side of analysis report.
- For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. &	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 325-DTE-2015	17/02/2023	16/02/2024
Respirable Dust Sampler Sr. No. 476-A-23	07/01/2023	07/01/2024
Gaseous Sampler Sr. No. 471-L-22	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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

## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.5/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		
<b>AMBIENT AIR LOCATION</b>			
Location of Ambient Air Station	Nagzar – Goa State (G-A3)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	80
Average Wind Speed (km/hr)	68	Average Wind direction (Deg)	290
Latitude	N 15°45'37.3"	Longitude	E 73°53'14.22"
Instrument Used	FPS (APM - 550)	RDS (APM - 480)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2433	51.9	80.20	14.93	< 6.0	< 9.0	0.91	133.8	0.04	< 1.0
2	06.11.2023	GA/23/2492	59.3	60.78	16.46	< 6.0	< 9.0	1.07	135.9	0.04	< 1.0
3	09.11.2023	GA/23/2624	72.0	62.26	16.80	< 6.0	< 9.0	0.44	120.0	0.06	< 1.0
4	13.11.2023	GA/23/2570	61.4	67.68	14.80	< 6.0	< 9.0	0.56	120.0	0.04	< 1.0
5	16.11.2023	GA/23/2689	52.4	60.99	20.54	< 6.0	< 9.0	0.72	125.1	0.05	< 1.0
6	20.11.2023	GA/23/2655	44.4	69.37	17.34	< 6.0	< 9.0	0.56	121.6	0.02	< 1.0
7	23.11.2023	GA/23/2690	38.8	61.84	13.51	< 6.0	< 9.0	0.56	120.1	0.05	< 1.0
8	27.11.2023	GA/23/2712	49.0	67.28	16.55	< 6.0	< 9.0	0.50	120.0	0.07	< 1.0
9	30.11.2023	GA/23/2729	47.1	58.85	13.56	< 6.0	< 9.0	0.41	123.9	0.04	< 1.0
<b>NAAQS LIMITS *</b>			–	100	60	80	80	2	–	1	–
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2008	IS 5182 (Part XXIV) 2002	IS 5182 (Part II) 2007	IS 5182 (Part VI) 2005	IS 5182 (Part IX) 1999	GL Method	IS 5182 (Part XXIII) 2008	LPA Method 18

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6. Calibration details of the equipment's used in monitoring and/or analysis is back side of analysis report.

For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 1	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 934-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 2832-DTB-2020	17/02/2023	16/02/2024
Gaseous Sampler Sr. No. 8888-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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Tel.: (022) 2577 7080 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Purva Casarvarnem - Goa State (G-A4)		
Average Ambient Temperature (°C)	30.0	Average Humidity (%)	75
Average Wind Speed (km/hr)	72	Average Wind direction (Deg)	292
Latitude	N 15°41'41.9"	Longitude	E 73°50'18.6"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2434	22.8	52.02	11.14	< 6.0	< 9.0	0.51	128.7	0.02	< 1.0
2	06.11.2023	GA/23/2493	25.7	59.32	13.93	< 6.0	< 9.0	0.41	123.8	0.03	< 1.0
3	09.11.2023	GA/23/2525	27.4	52.80	12.06	< 6.0	< 9.0	0.39	118.2	0.06	< 1.0
4	13.11.2023	GA/23/2571	25.6	57.69	14.80	< 6.0	< 9.0	0.50	125.0	0.04	< 1.0
5	16.11.2023	GA/23/2590	24.3	55.87	16.51	< 6.0	< 9.0	0.33	120.1	0.05	< 1.0
6	20.11.2023	GA/23/2656	22.1	60.08	15.72	< 6.0	< 9.0	0.68	128.5	0.04	< 1.0
7	23.11.2023	GA/23/2694	18.8	55.56	11.93	< 6.0	< 9.0	0.50	115.2	0.06	< 1.0
8	27.11.2023	GA/23/2713	21.0	58.83	13.64	< 6.0	< 9.0	0.72	125.1	0.06	< 1.0
	30.11.2023	GA/23/2730	22.6	51.68	11.68	< 6.0	< 9.0	0.48	131.5	0.05	< 1.0
<b>NAAQS LIMITS *</b>			--	<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>2</b>	--	<b>1</b>	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 3182 (Part 4)	IS 3182 (Part XXIII) 2008	IS 3182 (Part XXIV) 2005	IS 3182 (Part II) 2007	IS 3182 (Part VI) 2008	IS 3182 (Part X) 1999	GC Method	IS 3182 (Part XXII) 2004	FTA Method 19

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

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  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 equipment's used in monitoring and / or analysis is back side of analysis report.

For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 2	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 936-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 2842-DTB-2020	19/02/2023	18/02/2024
Gaseous Sampler Sr. No. 6886-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





# 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

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Khajne Amere Porcodem - Goa State (G-A5)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	85
Average Wind Speed (km/hr)	66	Average Wind direction (Deg)	310
Latitude	N 15°40'38.0"	Longitude	E 73°46'21.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2435	5.6	39.67	8.07	< 6.0	< 9.0	0.42	120.4	0.03	< 1.0
2	06.11.2023	GA/23/2494	6.1	39.92	13.10	< 6.0	< 9.0	0.23	117.4	0.04	< 1.0
3	09.11.2023	GA/23/2526	7.7	45.69	10.06	< 6.0	< 9.0	0.56	130.1	0.06	< 1.0
4	13.11.2023	GA/23/2572	6.3	43.36	9.07	< 6.0	< 9.0	0.39	118.1	0.04	< 1.0
5	16.11.2023	GA/23/2591	5.9	46.14	10.27	< 6.0	< 9.0	0.28	118.1	0.03	< 1.0
6	20.11.2023	GA/23/2657	4.1	39.76	9.94	< 6.0	< 9.0	0.71	138.4	0.05	< 1.0
7	23.11.2023	GA/23/2692	4.6	47.77	9.86	< 6.0	< 9.0	0.31	121.0	0.06	< 1.0
8	27.11.2023	GA/23/2714	5.4	41.59	9.02	< 6.0	< 9.0	0.33	121.1	0.08	< 1.0
9	30.11.2023	GA/23/2731	4.4	39.66	8.28	< 6.0	< 9.0	0.63	127.7	0.04	< 1.0
<b>NAAQS LIMITS *</b>			..	100	60	80	80	2	-	1	-
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXIII); 2006	IS 5182 (Part XXIV); 2006	IS 5182 (Part V); 2001	IS 5182 (Part VI); 2006	IS 5182 (Part X); 1996	GC Method	IS 5182 (Part XXII); 2004	CPA Method 'F'

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

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

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
CHECKED BY

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 3	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 942-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 2841-DTB-2020	19/02/2023	18/02/2024
Gaseous Sampler Sr. No. 6904-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, V.Khroll (West), Mumbai - 53.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0031 • -8" 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GI.PL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Rajvil Wada Torxem - Goa State (G-A6)		
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	88
Average Wind Speed (km/hr)	73	Average Wind direction (Deg)	302
Latitude	N 15°48'40.0"	Longitude	E 73°52'50.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2438	23.2	48.85	13.02	< 6.0	< 9.0	0.44	126.7	0.05	< 1.0
2	06.11.2023	GA/23/2497	33.9	54.49	15.05	< 6.0	< 9.0	0.53	126.8	0.03	< 1.0
3	09.11.2023	GA/23/2529	36.4	57.57	12.43	< 6.0	< 9.0	0.33	132.0	0.02	< 1.0
4	13.11.2023	GA/23/2575	24.8	51.86	15.26	< 6.0	< 9.0	0.67	132.0	0.05	< 1.0
5	16.11.2023	GA/23/2594	22.6	59.10	12.23	< 6.0	< 9.0	0.61	130.1	0.04	< 1.0
6	20.11.2023	GA/23/2660	21.3	67.33	11.52	< 6.0	< 9.0	0.41	127.1	0.002	< 1.0
7	23.11.2023	GA/23/2695	23.0	57.31	12.43	< 6.0	< 9.0	0.39	130.1	0.06	< 1.0
8	27.11.2023	GA/23/2717	29.0	58.25	15.14	< 6.0	< 9.0	0.39	130.0	0.06	< 1.0
9	30.11.2023	GA/23/2734	30.5	57.13	13.61	< 6.0	< 9.0	0.74	129.5	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2009	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2003	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 16

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

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
CHECKED BY

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. &	Calibrated On	Calibration Due Date
Respirable Dust Sampler Sr. No. 1329-R-273-DTC-2015	17/02/2023	16/02/2024
Gaseous Sampler Sr. No. 0773-DTB-2020	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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OFF.: 15, Hindustan Kahiroor Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 68.  
 Tel.: (022) 2577 7069 / 2577 7070 / 2005 0091 + +91 93213 12967

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION


Location of Ambient Air Station	Satarda - Maharashtra State (M-A1)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	83
Average Wind Speed (km/hr)	60.5	Average Wind direction (Deg)	270
Latitude	N 15°43'01.3"	Longitude	E 73°48'00.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2435	21.3	38.47	10.65	< 6.0	< 9.0	0.23	101.4	0.03	< 1.0
2	06.11.2023	GA/23/2495	22.7	46.43	11.89	< 6.0	< 9.0	0.38	129.6	0.03	< 1.0
3	09.11.2023	GA/23/2527	23.8	49.47	13.99	< 6.0	< 9.0	0.72	128.0	0.03	< 1.0
4	13.11.2023	GA/23/2573	21.3	53.83	10.56	< 6.0	< 9.0	0.72	130.1	0.05	< 1.0
5	16.11.2023	GA/23/2592	19.4	49.12	13.76	< 6.0	< 9.0	0.39	121.1	0.02	< 1.0
6	20.11.2023	GA/23/2658	18.4	39.30	12.48	< 6.0	< 9.0	0.40	126.0	0.03	< 1.0
7	23.11.2023	GA/23/2693	15.6	46.79	12.85	< 6.0	< 9.0	0.33	125.1	0.07	< 1.0
8	27.11.2023	GA/23/2715	22.1	53.15	12.31	< 6.0	< 9.0	0.56	120.1	0.04	< 1.0
9	30.11.2023	GA/23/2732	24.1	55.50	10.52	< 6.0	< 9.0	0.61	122.1	0.05	< 1.0
<b>NAAQS LIMITS *</b>			--	100	50	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 1182 (Part 4)	IS 1182 (Part XXIII) 2019	IS 5132 (Part XXIV) 2005	IS 5182 (Part II) 2001	IS 5182 (Part VII) 2006	IS 5182 (Part X) 1995	CC Method	IS 5182 (Part XXII) 2004	EPA Method 19

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

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  - Customer consent register is available at laboratory.
  - Calibration details of the equipment used in monitoring and/or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

  
 AUTHORIZED SIGNATORY  
 [SACHIN B. GAONKAR]



  
 CHECKED BY

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 4	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1163-E-22	15/05/2023	15/05/2024
Respirable Dust Sampler Sr. No. 476-A-23	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Dingane – Maharashtra State (M-A2)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	89
Average Wind Speed (km/hr)	55.6	Average Wind direction (Deg)	307
Latitude	N 15°46'12 3"	Longitude	E 73°49'20.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>x</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2439	4.3	31.81	6.65	< 6.0	< 9.0	0.61	124.0	0.05	< 1.0
2	06.11.2023	GA/23/2498	5.0	33.19	9.36	< 6.0	< 9.0	0.23	120.4	0.04	< 1.0
3	09.11.2023	GA/23/2530	6.2	40.35	10.89	< 6.0	< 9.0	0.50	121.0	0.06	< 1.0
4	13.11.2023	GA/23/2576	5.1	49.28	11.19	< 6.0	< 9.0	0.61	121.2	0.06	< 1.0
5	16.11.2023	GA/23/2595	4.6	40.87	9.31	< 6.0	< 9.0	0.44	114.1	0.02	< 1.0
6	20.11.2023	GA/23/2661	3.9	35.74	7.78	< 6.0	< 9.0	0.59	130.4	0.05	< 1.0
7	23.11.2023	GA/23/2696	4.9	30.32	9.19	< 6.0	< 9.0	0.67	135.2	0.07	< 1.0
8	27.11.2023	GA/23/2718	5.3	34.71	11.10	< 6.0	< 9.0	0.44	135.1	0.08	< 1.0
9	30.11.2023	GA/23/2735	5.9	39.56	8.11	< 6.0	< 9.0	0.43	122.0	0.01	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 0162 (Part 4)	IS 0162 (Part XIII) 2003	IS 5162 (Part XXIV) 2006	IS 5162 (Part II) 2001	IS 5162 (Part VI) 2003	IS 5162 (Part X) 1993	CO Method	IS 5162 (Part XXII) 2004	EPA Method 19

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  - Test Results relate only to the conditions prevailing at the time of sampling.
  - Customer complaint register is available at laboratory.
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For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 7	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1955-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 1284-R-228-DTK-2014	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7089 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/12/2023		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	November 2023		

#### AMBIENT AIR LOCATION

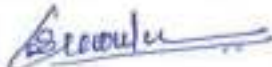
Location of Ambient Air Station	Netarde - Maharashtra State (M-A3)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	85
Average Wind Speed (km/hr)	52.1	Average Wind direction (Deg)	265
Latitude	N 15°46'11.7"	Longitude	E 73°53'47.0"
Instrument Used	FPS (APM - 550)	RDS (APM - 480)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	02.11.2023	GA/23/2437	3.1	21.21	6.89	< 6.0	< 9.0	0.37	128.2	0.04	< 1.0
2	06.11.2023	GA/23/2496	3.5	25.56	10.23	< 6.0	< 9.0	0.83	141.4	0.03	< 1.0
3	09.11.2023	GA/23/2528	4.3	30.04	8.48	< 6.0	< 9.0	0.61	130.0	0.05	< 1.0
4	13.11.2023	GA/23/2574	3.0	24.46	7.44	< 6.0	< 9.0	0.78	125.2	0.06	< 1.0
5	16.11.2023	GA/23/2593	2.2	27.02	9.44	< 6.0	< 9.0	0.78	126.0	0.05	< 1.0
6	20.11.2023	GA/23/2659	1.7	23.84	8.10	< 6.0	< 9.0	0.36	125.0	0.04	< 1.0
7	23.11.2023	GA/23/2694	2.3	28.13	7.10	< 6.0	< 9.0	0.22	122.1	0.07	< 1.0
8	27.11.2023	GA/23/2718	2.6	32.62	10.65	< 6.0	< 9.0	0.28	116.1	0.07	< 1.0
9	30.11.2023	GA/23/2733	2.3	27.39	9.19	< 6.0	< 9.0	0.31	121.0	0.04	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part I)	IS 5182 (Part XXIII) 2005	IS 5182 (Part XXIV) 2006	IS 5182 (Part III) 2007	IS 5182 (Part VI) 2008	IS 5182 (Part X) 1003	GC Method	IS 5187 (Part XXII) 2004	FPA Method 1E

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

- 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 equipment used in monitoring and / or analysis is back side of analysis report.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 5	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 940-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 477-A-23	07/01/2023	07/01/2024
Gaseous Sampler Sr. No. 470-L-22	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



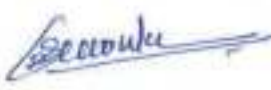


# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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## TEST REPORT

NOISE LEVEL MONITORING REPORT													
Date of Issue		30/11/2023											
Name of Client		M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED											
Address of Client		ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.											
Sampling Plan		GLPL/QF/7.3/08				Sampling Procedure No.				GLPL/SOP/AA/17			
Sample Collected By		GLPL Representative											
AMBIENT AIR NOISE POLLUTION MONITORING													
Sr. No.	Date of Sampling	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)				
						L <sub>max</sub>	L <sub>eq</sub>	L <sub>90</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>90</sub>		
1	10.11.2023	GA/23/2554	G-N1	I	Mopa Boundary	33.6	29.0	60.4	36.3	35.3	55.6		
2	10.11.2023	GA/23/2553	G-N2	I	Shemachaduan	34.1	27.4	59.3	38.6	74.2	55.2		
3	07.11.2023	GA/23/2512	G-N3	C	Nagzar	30.2	25.8	55.8	37.4	75.2	50.7		
4	07.11.2023	GA/23/2513	G-N4	R	Punya Casarvarnem	31.3	28.5	52.7	30.0	78.4	43.3		
5	08.11.2023	GA/23/2503	G-N5	R	Chantol	30.2	21.1	51.2	30.4	62.9	49.0		
6	14.11.2023	GA/23/2588	G-N6	R	Kaajne Amere Porsceden	30.9	22.2	52.7	30.6	65.7	32.0		
7	08.11.2023	GA/23/2502	G-N7	R	Werkhand	30.4	27.2	52.7	30.2	78.2	41.4		
8	17.11.2023	GA/23/2517	G-N8	C	Kajvil Wade Tarvem	35.6	24.3	62.5	39.3	81.0	52.4		
9	17.11.2023	GA/23/2515	G-N9	C	Village Panchayat Tembexem - Mopa - Jgvem	34.7	22.7	60.3	31.8	74.2	50.9		
10	14.11.2023	GA/23/2587	M-N1	R	Satarda	33.7	26.7	49.2	30.5	57.0	31.9		
11	03.11.2023	GA/23/2469	M-N2	R	Dingana	30.7	25.9	40.9	30.0	59.1	31.8		
12	03.11.2023	GA/23/2458	M-N3	R	Netardic	31.3	28.6	47.9	30.6	67.5	37.3		
I - Industrial Zone, C - Commercial Zone, R - Residential Zone													
1] 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 (I)		75		70							
(B)		Commercial Area (C)		65		55							
(C)		Residential Area (R)		55		45							
(D)		Silence Zone (S)		50		40							
2] Day time is reckoned in between 6:00 am to 10 pm and night time is reckoned in between 10:00 pm to 06:00 am													
3] "dB(A) Leq denotes the time weighted average of the level of sound in decibels on a scale A which is relative to human hearing. A "decibel" is a unit in which noise is measured.													
4] "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.													
5] Leq : It is the energy mean of the noise level over a specified period.													
<p><b>Note :</b></p> <ol style="list-style-type: none"> <li>The results relate only to the samples tested.</li> <li>Test Report shall not be reproduced except in full, without written approval of the laboratory.</li> <li>Test Results relate only to the conditions prevailing at the time of sampling.</li> <li>Customer complaint register is available at laboratory.</li> <li>Calibration details of the equipment's used in monitoring and/or analysis is back side of analysis report.</li> </ol>													
For GADARK LAB PVT. LTD.													
 <b>AUTHORISED SIGNATORY</b> <b>[SACHIN B. GAONKAR]</b>								 <b>CHECKED BY</b>					

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Equipment Name</b>	<b>Callbrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 554067	16/05/2023	16/05/2024

<b>Equipment Name</b>	<b>Callbrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 546176	23/06/2023	23/06/2024



# GADARK LAB PVT. LTD.

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

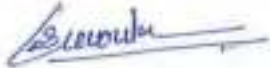
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No	GW23/2011		Report Date	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachwad, Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated	Environmental Condition of Lab	Temp °C	Humidity %
	17/11/2023		24.2	51
Sampling Plan	GLP_QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Aircraft Filling			
Sampling Details	Aircraft Filling Water Sample	Date of Collection	17/11/2023	
Sample Collected by	GLP Representative	Sample Received On	18/11/2023	
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.85	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	4.06	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	21	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl <sup>-</sup>	7.07	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	1.0	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/23/2011	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on	15/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Vagzer, Taluka Pernem, Mopa, North Goa - 403512		

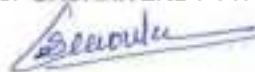
#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.058	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.01	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.48	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.80	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.18	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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### TEST REPORT

Report No.	GW/23/2011	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on	18/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	F.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

  
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#### Note:

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In House Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In House Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	15/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207005	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	17/11/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2012		Report Date	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/11/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	51
Sampling Plan	GLPL/QF/7.3/08	Sampling Procedure No.	APHA 1080	
Sampling Point	WTP RO Outlet			
Sampling Details	WTP RO Outlet Water Sample	Date of Collection	17/11/2023	
Sample Collected by	G.I.P., Representative	Sample Received On	18/11/2023	
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.80	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	6.09	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	20	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	6.09	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	12	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/23/2012	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on	18/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pemem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.054	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	2.40	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.46	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.88	mg/lit	Not Specified	APIIA 3500 Na B
32	Potassium as K	0.05	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/23/2012	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on	15/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 5221 - G

End

For GADARK LAB PVT. LTD.

  
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[SACHIN B. GAONKAR]



  
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#### Note:

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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

Page 3 of 3

### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GLEQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GLEQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GLEQ/BAL/03	AVJ2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GLEQ/O/01	AVJ2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GLEQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP - OES	GLEQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GLEQ/I-01	AVI2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GLEQ/I-03	AVI2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GLLF/01	TECH/VAL/23/02/09	17/11/2023	15/02/2024
10.	Autoclave	GLEQ/A/01	AVI2207004	29/06/2023	28/06/2024
11.	Water Bath	GLEQ/WB/01	AVI2207017	29/06/2023	28/06/2024



# 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, I. B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

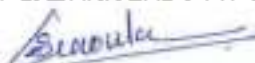
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2013		Report Date	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated	Environmental Condition of Lab	Tamp °C	Humidity %
	17/11/2023		24.2	51
Sampling Plan	GLPL/QF/7.3/03	Sampling Procedure No.	APHA 1060	
Sampling Point:	PTB Departure L2			
Sampling Details	PTB Departure L2 Water Fountain Sample	Date of Collection	17/11/2023	
Sample Collected by	GLPL Representative	Sample Received On	18/11/2023	
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.54	-	6.5 - 8.5	APHA 4500 F+
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	2.03	mg/lit	200.00	APHA 2520 B
7	Total Dissolved Solid	18	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	8.08	mg/lit	250.00	APHA 4500 Cl <sup>-</sup>
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	8	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/23/2013	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on	15/11/2023
Analysis Started On	15/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road Nagzar, Taluka Femam, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.054	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.01	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5510 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - 3
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.97	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.62	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.02	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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Tel.: (022) 2577 7069 / 2577 7070 / 2575 0081 • +91-93213 12367

### TEST REPORT

Report No.	GW/23/2013	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on	18/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Daoachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

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*K. B. Gaonkar*  
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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	UV Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207008	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	17/11/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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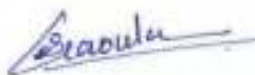
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE					
Report No.	GW/23/2014		Report Date	22/11/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512				
Order / Reference	As Per Dated	Environmental Condition of Lab		Temp °C	Humidity %
	17/11/2023			24.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060		
Sampling Point	PTB Arrival L0				
Sampling Details	PTB Arrival L0 Water Fountain Sample	Date of Collection	17/11/2023		
Sample Collected by	GLPL Representative	Sample Received On	18/11/2023		
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023		
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	8.79	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2150 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	4.06	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	16	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	7.07	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	1.00	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	6	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 N-H <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/23/2014	Report Date	22/11/2023
Order / Reference	As Per Date 17/11/2023	Sample Received on	18/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

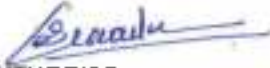
#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.052	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.01	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.49	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.17	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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### TEST REPORT

Report No.	GW/23/2014	Report Date	22/11/2023
Order / Reference	As Per Dated 17/11/2023	Sample Received on.	18/11/2023
Analysis Started On	18/11/2023	Analysis Completed On	22/11/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachwadl Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In House Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In House Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/ 2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP - OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207008	29/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	17/11/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/W3/01	AVI/2207017	29/06/2023	28/06/2024



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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1905	Report Date	09/11/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 03/11/2023	Environmental Condition of Lab	Temp °C	Humidity %
			30.6	72
Sampling Plan	GLPL/QF/7.3/08	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Inlet			
Sampling Details	STP Inlet Water Sample	Date of Collection	03/11/2023	
Sample Collected by	GLPL Representative	Sample Received On	04/11/2023	
Analysis Started On	04/11/2023	Analysis Completed On	09/11/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Method
1	pH	6.78	-	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	602	mg/lit	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	370	mg/lit	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	278	mg/lit	APHA 2540 D
5	Oil & Grease (O & G)	11	mg/lit	APHA 5520 B
6	Ammonia	84.56	mg/lit	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	94.34	mg/lit	APHA 4500-Norg

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Method
8	Fecal Coliform at 44.5°C for 24 h/s.	920	M-PN Index/100ml	APHA 9221 E

End

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Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GLEQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GLEQ/O/01	AV/2207012	29/08/2023	25/06/2024
03.	COD Digester	GLEQ/COD/01	AV/2207010	29/08/2023	25/06/2024
04.	BOD incubator	GLEQ/I/02	AV/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 °C)	GLEQ/I-01	AV/2207008	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 °C)	GLEQ/I-03	AV/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GLLF/01	TECH/VAL/20 23/02/89	25/05/2023	15/02/2024
08.	Autoclave	GLEQ/A/01	AV/2207004	29/05/2023	25/06/2024



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## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/1910	Report Date	09/11/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 03/11/2023	Environmental Condition of Lab	Temp °C	Humidity %
			30.6	72
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Outlet			
Sampling Details	STP Outlet Water Sample	Date of Collection	03/11/2023	
Sample Collected by	GLPL Representative	Sample Received On	04/11/2023	
Analysis Started On	04/11/2023	Analysis Completed On	09/11/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Limits	Method
1	pH	6.94	-	5.5 - 9.0	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	42	mg/lit	50.00	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	8	mg/lit	10.00	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	16	mg/lit	20.00	APHA 2540 D
5	Oil & Grease (O & G)	< 0.1	mg/lit	10.00	APHA 5520 B
6	Ammonia	3.02	mg/lit	5.00	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	7.73	mg/lit	10.00	APHA 4500-Norg

### Microbiological Parameters:

8	Fecal Coliform at 44.5°C for 24 hrs.	79	MPN Index/100ml	100	APHA 9221 E
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End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



*Kai Bagayarkar*  
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### Note:

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 <sup>o</sup> C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 <sup>o</sup> C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	25/05/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024





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

## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

### AMBIENT AIR LOCATION

Location of Ambient Air Station	Mopa Boundry - Goa State (G-A1)		
Average Ambient Temperature (°C)	30.0	Average Humidity (%)	75
Average Wind Speed (km/hr)	81	Average Wind direction (Deg)	298
Latitude	N 15°45'51.1"	Longitude	E 73°56'32.4"
Instrument Used	FPS (APM - 550)	RDS (APM - 450)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2751	41.5	60.20	17.84	< 6.0	< 9.0	0.48	121.4	0.02	< 1.0
2	07.12.2023	GA/23/2777	40.4	58.97	11.77	< 6.0	< 9.0	0.58	148.4	0.002	< 1.0
3	11.12.2023	GA/23/2811	41.7	64.59	16.84	< 6.0	< 9.0	0.31	128.0	0.04	< 1.0
4	14.12.2023	GA/23/2836	32.5	57.47	14.93	< 6.0	< 9.0	0.39	132.8	0.05	< 1.0
5	18.12.2023	GA/23/2859	36.5	65.53	14.72	< 6.0	< 9.0	0.51	145.7	0.05	< 1.0
6	21.12.2023	GA/23/2881	39.2	59.39	13.22	< 6.0	< 9.0	0.50	122.0	0.05	< 1.0
7	25.12.2023	GA/23/2902	37.3	57.76	12.85	< 6.0	< 9.0	0.48	129.5	0.07	< 1.0
8	28.12.2023	GA/23/2930	33.3	62.71	14.39	< 6.0	< 9.0	0.27	127.2	0.02	< 1.0
<b>NAAQS LIMITS *</b>			—	100	60	80	80	2	—	1	—
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5192 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5192 (Part I) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	FPA Method 'E'

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

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6. Details on details of the equipment's used in monitoring and / or analysis is back side of analysis report.

For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 9	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1256-L-22	07/01/2023	07/01/2024
Respirable Dust Sampler Sr. No. 1544-DTJ-2019	08/10/2023	07/10/2024
Gaseoue Sampler Sr. No. 210-B-2022	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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Tel.: (022) 2577 7069 / 2577 7070 / 2065 0091 • 91 93213 12367

## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPU/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

### AMBIENT AIR LOCATION

Location of Ambient Air Station	Shomecheadvan Goa State (G-A2)		
Average Ambient Temperature (°C)	28.5	Average Humidity (%)	74
Average Wind Speed (km/h)	58.3	Average Wind direction (Deg)	307
Latitude	N 15°42'06.1"	Longitude	E 73°49'21.5"
Instrument Used	GPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2750	27.5	55.18	14.51	< 6.0	< 9.0	0.40	112.3	0.01	< 1.0
2	07.12.2023	GA/23/2775	6.8	77.41	25.22	< 6.0	< 9.0	0.53	127.6	0.03	< 1.0
3	11.12.2023	GA/23/2810	28.5	57.92	20.13	< 6.0	< 9.0	0.80	110.1	0.05	< 1.0
4	14.12.2023	GA/23/2835	25.2	60.62	19.09	< 6.0	< 9.0	0.54	140.4	0.04	< 1.0
5	18.12.2023	GA/23/2858	30.7	70.82	17.84	< 6.0	< 9.0	0.42	136.3	0.05	< 1.0
6	21.12.2023	GA/23/2880	29.1	60.68	18.67	< 6.0	< 9.0	0.44	135.0	0.05	< 1.0
7	25.12.2023	GA/23/2901	28.5	54.35	13.93	< 6.0	< 9.0	0.22	126.4	0.09	< 1.0
8	28.12.2023	GA/23/2829	21.8	52.57	11.73	< 6.0	< 9.0	0.52	129.1	0.01	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part I)	IS 5182 (Part XXII) 2002	IS 5102 (Part XXIV) 2002	IS 5182 (Part II) 2002	IS 5182 (Part VI) 2005	IS 5192 (Part X) 1992	GC Method	IS 5182 (Part XXII) 2004	EPA Method 10

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

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For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 8	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 325-DTE-2015	17/02/2023	16/02/2024
Respirable Dust Sampler Sr. No. 476-A-23	07/01/2023	07/01/2024
Gaseous Sampler Sr. No. 471-L-22	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 626	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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Tel.: (022) 2577 7060 / 2577 7070 / 7085 0391 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Nagzar – Goa State (G-A3)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	78
Average Wind Speed (km/hr)	70.1	Average Wind direction (Deg)	301
Latitude	N 15°45'37.3"	Longitude	E 73°53'14.22"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2743	49.6	64.59	15.18	< 6.0	< 9.0	0.44	127.7	0.02	< 1.0
2	07.12.2023	GA/23/2769	46.4	60.56	14.51	< 6.0	< 9.0	0.63	137.2	0.001	< 1.0
3	11.12.2023	GA/23/2603	48.3	68.04	19.00	< 6.0	< 9.0	0.33	120.0	0.04	< 1.0
4	14.12.2023	GA/23/2828	45.0	62.95	16.50	< 6.0	< 9.0	0.77	132.8	0.04	< 1.0
5	18.12.2023	GA/23/2851	48.8	75.31	17.22	< 6.0	< 9.0	0.67	120.5	0.04	< 1.0
6	21.12.2023	GA/23/2873	44.9	64.92	15.97	< 6.0	< 9.0	0.67	120.0	0.05	< 1.0
7	25.12.2023	GA/23/2894	45.2	59.96	16.38	< 6.0	< 9.0	0.66	128.8	0.06	< 1.0
8	28.12.2023	GA/23/2922	42.5	55.15	11.93	< 6.0	< 9.0	0.98	134.5	0.02	< 1.0
NAAQS LIMITS *			..	100	60	80	80	2	-	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5187 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2007	IS 5182 (Part VI) 2006	IS 5187 (Part X) 1999	CO Method	IS 5182 (Part XXIII) 2004	EPA Method 18

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

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For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Ambient Instrument No. 1</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Fine Particulate Sampler S. No. 934-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 2832-DTB-2020	17/02/2023	16/02/2024
Gaseous Sampler Sr. No. 6888-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, BADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7 3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Purva Casarvarnem - Goa State (G-A4)		
Average Ambient Temperature (°C)	29.0	Average Humidity (%)	69
Average Wind Speed (km/hr)	75.5	Average Wind direction (Deg)	282
Latitude	N 15°41'41.9"	Longitude	E 73°50'16.6"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOG
1	04.12.2023	GA/23/2744	25.6	53.11	12.27	< 6.0	< 9.0	0.41	120.3	0.04	< 1.0
2	07.12.2023	GA/23/2770	24.1	58.48	11.23	< 6.0	< 9.0	0.37	125.6	0.02	< 1.0
3	11.12.2023	GA/23/2804	26.9	54.03	12.02	< 6.0	< 9.0	0.50	121.1	0.05	< 1.0
4	14.12.2023	GA/23/2829	24.5	63.73	13.80	< 6.0	< 9.0	0.44	125.0	0.03	< 1.0
5	18.12.2023	GA/23/2852	26.7	55.96	11.60	< 6.0	< 9.0	0.56	132.8	0.05	< 1.0
6	21.12.2023	GA/23/2874	21.2	59.29	11.89	< 6.0	< 9.0	0.61	130.0	0.05	< 1.0
7	25.12.2023	GA/23/2895	24.9	54.48	10.10	< 6.0	< 9.0	0.68	112.7	0.08	< 1.0
8	28.12.2023	GA/23/2923	20.3	50.90	12.52	< 6.0	< 9.0	0.71	122.6	0.02	< 1.0
NAAQS LIMITS *			—	100	60	80	80	2	—	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5187 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5187 (Part III) 2004	IS 5182 (Part IV) 2005	IS 5102 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	ISPA Method 18

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 2	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 936-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 2842-DTB-2020	19/02/2023	18/02/2024
Gaseous Sampler Sr. No. 6896-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Khajne Amere Porscodem - Goa State (G-A5)		
Average Ambient Temperature (°C)	29.5	Average Humidity (%)	77
Average Wind Speed (km/hr)	65.8	Average Wind direction (Deg)	297
Latitude	N 15°40'38.0"	Longitude	E 73°46'21.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2745	4.9	48.55	7.44	< 6.0	< 9.0	0.69	133.5	0.004	< 1.0
2	07.12.2023	GA/23/2771	3.7	38.62	9.81	< 6.0	< 9.0	0.40	121.1	0.03	< 1.0
3	11.12.2023	GA/23/2805	4.3	40.81	10.52	< 6.0	< 9.0	0.56	123.2	0.04	< 1.0
4	14.12.2023	GA/23/2830	3.2	45.75	10.02	< 6.0	< 9.0	0.40	133.7	0.03	< 1.0
5	18.12.2023	GA/23/2853	2.9	41.03	9.90	< 6.0	< 9.0	0.74	147.2	0.04	< 1.0
6	21.12.2023	GA/23/2875	3.4	44.10	10.44	< 6.0	< 9.0	0.28	125.1	0.04	< 1.0
7	25.12.2023	GA/23/2896	4.0	47.50	9.44	< 6.0	< 9.0	0.57	123.5	0.08	< 1.0
8	28.12.2023	GA/23/2924	3.4	49.09	10.23	< 6.0	< 9.0	0.46	130.7	0.02	< 1.0
NAAQS LIMITS *			-	100	60	80	80	2	-	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5187 (Part XXIII) 2006	IS 6182 (Part XXIV) 2009	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2018	IS 5182 (Part X) 1999	SC Method	IS 5182 (Part XXII) 2004	EPA Method 15

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

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- Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report

For GADARK LAB PVT. LTD

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 3	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 942-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 670-E-23	18/10/2023	17/10/2024
Gaseous Sampler Sr. No. 6904-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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OFF.: 15, Hindustan Kohinoor Industrial Complex, L.B.S. Marg, Vikhrol (West), Mumbai - 83.

Tel. : (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12067

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Rajvil Wada Torxem - Goa State (G-A6)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	76
Average Wind Speed (km/hr)	70	Average Wind direction (Deg)	310
Latitude	N 15°48'40.0"	Longitude	E 73°52'50.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2748	33.7	56.70	12.97	< 6.0	< 9.0	0.32	120.8	0.003	< 1.0
2	07.12.2023	GA/23/2774	31.9	47.19	14.43	< 6.0	< 9.0	0.36	131.6	0.004	< 1.0
3	11.12.2023	GA/23/2808	35.4	52.73	16.34	< 6.0	< 9.0	0.72	125.0	0.05	< 1.0
4	14.12.2023	GA/23/2833	33.9	61.20	14.55	< 6.0	< 9.0	0.47	129.6	0.07	< 1.0
5	16.12.2023	GA/23/2856	30.9	53.94	13.81	< 6.0	< 9.0	0.60	141.9	0.05	< 1.0
6	21.12.2023	GA/23/2878	29.8	51.92	14.39	< 6.0	< 9.0	0.61	137.0	0.05	< 1.0
7	25.12.2023	GA/23/2899	28.8	50.61	12.56	< 6.0	< 9.0	0.67	120.1	0.05	< 1.0
8	28.12.2023	CA/23/2927	22.4	53.34	12.10	< 6.0	< 9.0	0.30	136.6	0.05	< 1.0
<b>NAAQS LIMITS *</b>			<b>-</b>	<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>2</b>	<b>--</b>	<b>1</b>	<b>--</b>
<b>UNITS</b>			<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>mg/m<sup>3</sup></b>	<b>ppm</b>	<b>µg/m<sup>3</sup></b>	<b>ppm</b>
<b>METHOD</b>			IS 5187 (Part I)	IS 5182 (Part XXIII) 2006	IS 5102 (Part XXIV) 2006	IS 5187 (Part II) 2001	IS 5132 (Part V) 2000	IS 5102 (Part X) 1999	GC Method	IS 5187 (Part XXIII) 2006	EPA Method 8

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For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 6	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 56-C-22	15/11/2023	14/11/2024
Respirable Dust Sampler Sr. No. 1329-R-273-DTC-2015	17/02/2023	16/02/2024
Gaseoue Sampler Sr. No. 6773-DTB-2020	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0081 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QI/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Satarda - Maharashtra State (M-A1)		
Average Ambient Temperature (°C)	29.0	Average Humidity (%)	78
Average Wind Speed (km/hr)	61.5	Average Wind direction (Deg)	278
Latitude	N 15°43'01.3"	Longitude	E 73°45'00.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2746	26.9	81.16	11.73	< 6.0	< 9.0	0.81	141.9	0.01	< 1.0
2	07.12.2023	GA/23/2772	25.1	49.68	10.89	< 6.0	< 9.0	0.47	132.4	0.02	< 1.0
3	11.12.2023	GA/23/2806	27.7	55.56	15.05	< 6.0	< 9.0	0.67	118.2	0.05	< 1.0
4	14.12.2023	GA/23/2831	25.9	50.16	15.14	< 6.0	< 9.0	0.46	137.9	0.06	< 1.0
5	18.12.2023	GA/23/2854	32.5	63.49	16.47	< 6.0	< 9.0	0.28	133.2	0.05	< 1.0
6	21.12.2023	GA/23/2876	29.9	58.82	14.72	< 6.0	< 9.0	0.39	118.0	0.06	< 1.0
7	25.12.2023	GA/23/2897	29.1	52.28	11.56	< 6.0	< 9.0	0.51	120.7	0.05	< 1.0
8	28.12.2023	GA/23/2925	22.8	50.21	10.44	< 6.0	< 9.0	0.42	131.6	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII); 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part ) 2001	IS 5182 (Part V) 2006	IS 5182 (Part X); 1998	GL Method	IS 5182 (Part XXII); 2004	EPA Method -6

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 4	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1163-E-22	15/05/2023	15/05/2024
Respirable Dust Sampler Sr. No. 476-A-23	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024



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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Dingane – Maharashtra State (M-A2)		
Average Ambient Temperature (°C)	29.0	Average Humidity (%)	71
Average Wind Speed (km/hr)	50.8	Average Wind direction (Deg)	277
Latitude	N 15°46'12.3"	Longitude	E 73°49'20.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2749	7.7	40.63	10.31	< 6.0	< 9.0	0.69	135.1	0.005	< 1.0
2	07.12.2023	GA/23/2775	8.8	34.21	8.15	< 6.0	< 9.0	0.53	127.6	0.03	< 1.0
3	11.12.2023	GA/23/2805	8.3	39.95	12.85	< 6.0	< 9.0	0.78	131.1	0.04	< 1.0
4	14.12.2023	GA/23/2834	8.4	34.40	10.65	< 6.0	< 9.0	0.48	123.8	0.04	< 1.0
5	18.12.2023	GA/23/2857	5.7	42.01	6.19	< 6.0	< 9.0	0.33	120.2	0.04	< 1.0
6	21.12.2023	GA/23/2879	12.2	51.29	9.02	< 6.0	< 9.0	0.78	140.0	0.05	< 1.0
7	25.12.2023	GA/23/2900	11.7	53.71	10.85	< 6.0	< 9.0	0.50	139.1	0.05	< 1.0
8	28.12.2023	GA/23/2928	6.4	46.32	11.89	< 6.0	< 9.0	0.30	138.4	0.04	< 1.0
<b>NAAQS LIMITS *</b>			–	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXII) 2008	IS 5182 (Part XXIV) 2008	IS 5192 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part XI) 1990	CC Method	IS 5182 (Part XXII) 2008	SPM Method 19

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 7	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 60-C-22	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 1284-R-228-DTK-2014	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 + +91 93215 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/01/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	December 2023		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Netarde - Maharashtra State (M-A3)		
Average Ambient Temperature (°C)	29.5	Average Humidity (%)	72
Average Wind Speed (km/hr)	53.6	Average Wind direction (Deg)	255
Latitude	N 15°46'11.7"	Longitude	E 73°53'47.0"
Instrument Used	FPS (APM - 550)	RDS (APM - 480)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.12.2023	GA/23/2747	2.8	23.74	7.11	< 6.0	< 9.0	0.43	116.6	0.01	< 1.0
2	07.12.2023	GA/23/2773	3.6	29.92	6.11	< 6.0	< 9.0	0.27	124.7	0.002	< 1.0
3	11.12.2023	GA/23/2807	4.3	32.09	8.65	< 6.0	< 9.0	0.51	130.1	0.04	< 1.0
4	14.12.2023	GA/23/2832	3.3	29.96	7.07	< 6.0	< 9.0	0.37	124.7	0.06	< 1.0
5	18.12.2023	GA/23/2855	3.0	41.66	10.15	< 6.0	< 9.0	0.44	130.8	0.05	< 1.0
6	21.12.2023	GA/23/2877	2.4	57.64	9.98	< 6.0	< 9.0	0.56	135.1	0.06	< 1.0
7	25.12.2023	GA/23/2895	3.1	53.96	11.48	< 6.0	< 9.0	0.40	132.4	0.06	< 1.0
8	28.12.2023	GA/23/2926	2.2	55.34	12.68	< 6.0	< 9.0	0.51	125.3	0.03	< 1.0
<b>NAAQS LIMITS *</b>			—	100	60	80	80	2	—	1	—
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXII) 2006	IS 5182 (Part XXIV) 2009	IS 5182 (Part II) 2007	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	CG Method	IS 5182 (Part XXII) 2006	LPA Method 15

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OF GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 5	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 940-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 477-A-23	07/01/2023	07/01/2024
Gaseous Sampler Sr. No. 470-L-22	07/01/2023	07/01/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	17/01/2023	16/01/2024





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Tel. : (022) 2577 7060 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

NOISE LEVEL MONITORING REPORT											
Date of Issue		03/01/2024									
Name of Client		M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED									
Address of Client		ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADAGHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.									
Sampling Plan		GLPL/QF/7.3/06			Sampling Procedure No.				GLPL/SOP/AA/17		
Sample Collected By		GLPL Representative									
AMBIENT AIR NOISE POLLUTION MONITORING											
Sr. No.	Date of Sampling	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						L <sub>max</sub>	L <sub>eq</sub>	L <sub>90</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>90</sub>
1	08.12.2023	GA/23/2787	G-N1	I	Mops Boundary	36.4	69.8	60.2	31.1	50.5	51.1
2	08.12.2023	GA/23/2786	G-N2	I	Shemichodevan	30.1	79.9	54.6	30.0	74.5	60.1
3	08.12.2023	GA/23/2787	G-N3	C	Nagca	30.7	81.1	57.1	34.4	81.3	52.6
4	08.12.2023	GA/23/2788	G-N4	R	Purva Cesarvamom	30.1	87.4	52.5	30.0	77.5	44.1
5	11.12.2023	GA/23/2812	G-N5	R	Chandri	30.3	85.7	53.8	30.0	79.2	44.1
6	12.12.2023	GA/23/2814	G-N6	R	Khajne Amare Poracodem	30.2	81.8	52.5	30.8	75.2	43.8
7	11.12.2023	GA/23/2813	G-N7	R	Werkhand	30.2	88.8	52.7	30.4	71.2	43.6
8	15.12.2023	GA/23/2857	G-N8	C	Rajal Wada Turzer	32.0	88.3	54.7	30.1	85.2	45.1
9	15.12.2023	GA/23/2838	G-N9	C	Village Panchayat Turboxer - Mopa - Ugvein	37.1	92.9	54.8	34.2	72.0	50.7
10	12.12.2023	GA/23/2815	M-N1	R	Satarda	30.6	80.9	49.3	30.5	72.6	43.6
11	05.12.2023	GA/23/2763	M-N2	R	Dingens	30.0	85.1	49.2	30.7	71.9	39.7
12	05.12.2023	GA/23/2762	M-N3	R	Notarda	30.2	80.5	48.9	30.1	67.8	34.0
I - Industrial Zone, C - Commercial Zone, R - Residential Zone											
1) 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 (I)	75	70							
	(B)	Commercial Area (C)	65	55							
	(C)	Residential Area (R)	55	45							
	(D)	Silence Zone (S)	50	40							
2) Day time is reckoned in between 0:00 am to 10 pm and night time is reckoned in between 10:00 pm to 05:30 am											
3) "dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is most apt to human hearing. A "decibel" is a unit in which noise is measured.											
4) "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.											
5) Leq : It is the energy mean of the noise level over a specified period.											
<p>Note :</p> <ol style="list-style-type: none"> <li>The results relate only to the samples tested.</li> <li>Test Report shall not be reproduced except in full, without written approval of the laboratory.</li> <li>Test Results relate only to the conditions prevailing at the time of sampling.</li> <li>Customer complaint register is available at laboratory.</li> <li>Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.</li> </ol>											
For <b>GADARK LAB PVT. LTD.</b>											
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 554067	16/05/2023	16/05/2024

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 546176	23/06/2023	23/06/2024



# GADARK LAB PVT. LTD.

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2204		Report Date	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	WTP RO			
Sampling Details	WTP RO Outlet Water Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.84	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	4.05	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	25	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	3.03	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	0.50	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	14	mg/lit	200.00	APHA 7340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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## TEST REPORT

Report No.	GW/23/2204	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Daðachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F <sup>-</sup>	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.44	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	4.2	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.84	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## TEST REPORT

Report No.	GW/23/2204	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E. Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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### Note:

1. Results relate only to the sample tested.
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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207008	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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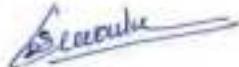
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2205		Report Date	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated	Environmental Condition of Lab	Temp °C	Humidity %
	18/12/2023		24.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Admin 1 <sup>st</sup> Floor			
Sampling Details	Admin 1 <sup>st</sup> Floor Fountain Water Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.51	-	6.5 - 8.5	APHA 1500 H-
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	30.39	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	67	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	14.16	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	1.00	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	44	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/23/2205	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN- D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	8.02	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	5.85	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	5.0	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.4	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## TEST REPORT

Report No.	GW/23/2205	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E. Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	UV Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP - OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44,5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2206	Report Date	23/12/2023	
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Café Gox			
Sampling Details	Café Gox Water Fountain Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.75	-	8.5 – 8.5	APHA 4500 H'
2	Turbidity	0.3	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	30.39	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	69	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	15.18	mg/lit	250.00	APHA 4500 Cl B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	46	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.058	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/23/2206	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachivardi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APIIA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN- D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APIIA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	8.02	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 D
27	Magnesium as Mg	6.33	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	4.7	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.3	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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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.

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

## TEST REPORT

Report No.	GW23/2206	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	18/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APIHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

  
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### Note:

1. Results relate only to the sample 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. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/FQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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

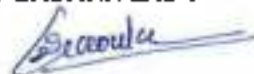
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2207	Report Date	23/12/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	International Arrival			
Sampling Details	International Arrival Water Fountain Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.83	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.7	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	2.03	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	18	mg/lit	500.00	API IA 2540 C
8	Chlorides as Cl	2.02	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	API IA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	8	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/23/2207	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

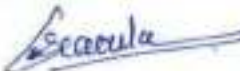
#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	0.80	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.46	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 D
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	3.4	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.32	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/23/2207	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

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#### Note:

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5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/T.S.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2073/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/220B	Report Date	23/12/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			21.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Domestic Departure L - II			
Sampling Details	Domestic Departure L - II Water Fountain Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.88	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	6.08	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	29	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	5.08	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/23/2208	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pemem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.001	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	2.40	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.92	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	4.1	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.49	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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## TEST REPORT

Report No.	GW/23/2208	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CA1/2023/TS,98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/MB/01	AVI/2207017	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

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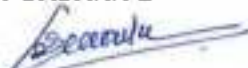
## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2210	Report Date	23/12/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512.			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	51
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Aircraft Filling			
Sampling Details	Aircraft Filling Water Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.81	-	6.5 - 8.5	APHA 4500 H'
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	4.05	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	22	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	4.05	mg/lit	250.00	APHA 4500 Cl B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.001	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	12	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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[SACHIN B. GAONKAR]



  
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Page 1 of 3





# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: 11-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 52b.  
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 400 88.  
Tel. : (022) 2677 7089 / 2577 7070 / 2085 0081 • +91 93213 12367

### TEST REPORT

Report No.	GW/23/2210	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	API IA 4500 NO <sub>3</sub> B
16	Fluoride as F <sup>-</sup>	< 0.001	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	API IA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.95	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	3.6	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.35	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## INDUSTRIAL ANALYSTS & CONSULTANTS

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

### TEST REPORT

Report No.	GW/23/2210	Report Date	23/12/2023
Order / Reference	As Per Dated 18/12/2023	Sample Received on	19/12/2023
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - C

End

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#### Note:

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Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207005	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2203	Report Date	23/12/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			28.7	72
Sampling Plan	GLPL/QH/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Inlet			
Sampling Details	STP Inlet Water Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	18/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Method
1	pH	6.78	-	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	1276	mg/lit	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	686	mg/lit	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	416	mg/lit	APHA 2540 D
5	Oil & Grease (O & G)	11	mg/lit	APHA 5520 B
6	Ammonia	65.80	mg/lit	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	79.24	mg/lit	APHA 4500-Norg

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Method
8	Fecal Coliform at 44.5°C for 24 hrs.	920	MPN Index/100ml	APHA 9221 E

End

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44,5 °C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	16/02/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024



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Tel.: (022) 2577 7089 / 2577 7070 / 2085 009\* • +91 93213 12367

### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/23/2209	Report Date	23/12/2023	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pemem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/12/2023	Environmental Condition of Lab	Temp °C	Humidity %
			28.7	72
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Outlet			
Sampling Details	STP Outlet Water Sample	Date of Collection	18/12/2023	
Sample Collected by	GLPL Representative	Sample Received On	19/12/2023	
Analysis Started On	19/12/2023	Analysis Completed On	23/12/2023	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Limits	Method
1	pH	6.97	-	5.5 - 9.0	APHA 4500 H*
2	Chemical Oxygen Demand (COD)	41	mg/lit	50.00	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	8	mg/lit	10.00	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	12	mg/lit	20.00	APHA 2540 D
5	Oil & Grease (O & G)	< 0.1	mg/lit	10.00	APHA 5520 B
6	Ammonia	2.46	mg/lit	5.00	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	8.74	mg/lit	10.00	APHA 4500-Norg

#### Microbiological Parameters:

8	Fecal Coliform at 44.5°C for 24 hrs.	63	MPN Index/100ml	100	APHA 9221 E
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End

For GADARK LAB PVT. LTD.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207008	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	16/02/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024



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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Mopa Boundry - Goa State (G-A1)		
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	65
Average Wind Speed (km/hr)	72	Average Wind direction (Deg)	301
Latitude	N 15°45'51.1"	Longitude	E 73°56'32.4"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0009	35.0	65.12	13.76	< 6.0	< 9.0	0.40	135.5	0.03	< 1.0
2	04.01.2024	GA/24/0029	32.6	63.44	12.72	< 6.0	< 9.0	0.28	122.0	0.06	< 1.0
3	08.01.2024	GA/24/0055	31.4	65.56	16.84	< 6.0	< 9.0	0.47	125.8	0.03	< 1.0
4	11.01.2024	GA/24/0091	37.3	60.23	17.76	< 6.0	< 9.0	0.48	136.9	0.07	< 1.0
5	15.01.2024	GA/24/0114	34.8	57.65	15.76	< 6.0	< 9.0	0.60	125.1	0.04	< 1.0
6	18.01.2024	GA/24/0132	37.9	62.00	18.09	< 6.0	< 9.0	0.24	111.9	0.05	< 1.0
7	22.01.2024	GA/24/0155	35.8	62.79	17.51	< 6.0	< 9.0	0.73	120.1	0.05	< 1.0
8	25.01.2024	GA/24/0175	37.2	62.31	14.93	< 6.0	< 9.0	0.59	82.1	0.07	< 1.0
9	29.01.2024	GA/24/0195	38.9	63.63	16.80	< 6.0	< 9.0	0.56	120.2	0.02	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 9	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1256-L-22	08/01/2024	07/01/2025
Respirable Dust Sampler Sr. No. 1544-DTJ-2019	08/10/2023	07/10/2024
Gaseoue Sampler Sr. No. 210-B-2022	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Shemecheadvan Goa State (G-A2)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	70
Average Wind Speed (km/hr)	69	Average Wind direction (Deg)	312
Latitude	N 15°42'06.1"	Longitude	E 73°49'21.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0008	23.8	54.29	12.31	< 6.0	< 9.0	0.44	143.3	0.05	< 1.0
2	04.01.2024	GA/24/0028	20.9	56.07	12.64	< 6.0	< 9.0	0.67	125.1	0.07	< 1.0
3	08.01.2024	GA/24/0054	20.1	51.63	15.30	< 6.0	< 9.0	0.51	122.8	0.05	< 1.0
4	11.01.2024	GA/24/0090	24.2	53.16	13.68	< 6.0	< 9.0	0.94	153.6	0.05	< 1.0
5	15.01.2024	GA/24/0113	20.5	51.99	14.72	< 6.0	< 9.0	0.64	128.5	0.04	< 1.0
6	18.01.2024	GA/24/0131	25.5	52.73	15.09	< 6.0	< 9.0	0.48	125.9	0.06	< 1.0
7	22.01.2024	GA/24/0154	27.0	52.45	14.55	< 6.0	< 9.0	0.83	121.0	0.03	< 1.0
8	25.01.2024	GA/24/0174	28.1	52.75	15.01	< 6.0	< 9.0	0.50	139.6	0.07	< 1.0
9	29.01.2024	GA/24/0194	27.5	53.23	13.18	< 6.0	< 9.0	0.67	125.3	0.05	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXI) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 8	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 325-DTE-2015	17/02/2023	16/02/2024
Respirable Dust Sampler Sr. No. 476-A-23	09/01/2024	08/01/2025
Gaseoue Sampler Sr. No. 471-L-22	08/01/2024	07/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025





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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7,3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Nagzar – Goa State (G-A3)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	64
Average Wind Speed (km/hr)	88.1	Average Wind direction (Deg)	309
Latitude	N 15°45'37.3"	Longitude	E 73°53'14.22"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0001	38.6	58.72	12.89	< 6.0	< 9.0	0.43	128.6	0.05	< 1.0
2	04.01.2024	GA/24/0021	31.3	61.60	11.02	< 6.0	< 9.0	0.33	120.1	0.04	< 1.0
3	08.01.2024	GA/24/0047	29.8	62.94	16.43	< 6.0	< 9.0	0.24	132.3	0.04	< 1.0
4	11.01.2024	GA/24/0083	39.4	66.14	19.84	< 6.0	< 9.0	0.53	132.4	0.08	< 1.0
5	15.01.2024	GA/24/0106	39.9	66.20	17.88	< 6.0	< 9.0	0.58	140.6	0.06	< 1.0
6	18.01.2024	GA/24/0124	37.1	63.69	20.75	< 6.0	< 9.0	0.59	142.1	0.04	< 1.0
7	22.01.2024	GA/24/0147	35.7	61.54	16.18	< 6.0	< 9.0	0.44	125.0	0.05	< 1.0
8	25.01.2024	GA/24/0167	37.3	61.85	22.54	< 6.0	< 9.0	0.60	173.1	0.08	< 1.0
9	29.01.2024	GA/24/0187	36.4	63.19	20.71	< 6.0	< 9.0	0.72	120.0	0.02	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXI) 2004	EPA Method 18

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

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- Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
CHECKED BY

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 1	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 934-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 2832-DTB-2020	17/02/2023	16/02/2024
Gaseoue Sampler Sr. No. 6888-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Purva Casarvarnem - Goa State (G-A4)		
Average Ambient Temperature (°C)	30.0	Average Humidity (%)	72
Average Wind Speed (km/hr)	80.5	Average Wind direction (Deg)	271
Latitude	N 15°41'41.9"	Longitude	E 73°50'16.6"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0002	25.2	60.01	11.56	< 6.0	< 9.0	0.39	126.7	0.05	< 1.0
2	04.01.2024	GA/24/0022	28.9	59.66	12.39	< 6.0	< 9.0	0.50	125.0	0.04	< 1.0
3	08.01.2024	GA/24/0048	27.8	62.74	17.17	< 6.0	< 9.0	0.29	125.0	0.05	< 1.0
4	11.01.2024	GA/24/0084	25.6	57.45	15.18	< 6.0	< 9.0	0.81	141.2	0.01	< 1.0
5	15.01.2024	GA/24/0107	21.9	59.61	16.34	< 6.0	< 9.0	0.44	129.8	0.07	< 1.0
6	18.01.2024	GA/24/0125	25.5	56.06	18.09	< 6.0	< 9.0	0.54	137.3	0.05	< 1.0
7	22.01.2024	GA/24/0148	26.5	58.50	16.92	< 6.0	< 9.0	0.61	135.1	0.05	< 1.0
8	25.01.2024	GA/24/0168	28.5	62.31	59.24	< 6.0	< 9.0	0.56	91.7	0.04	< 1.0
9	29.01.2024	GA/24/0188	30.6	61.96	17.84	< 6.0	< 9.0	0.44	130.1	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2005	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXI) 2004	EPA Method 16

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For GADARK LAB PVT. LTD.

*Sachin B. Gaonkar*

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



*K. Bagayath*  
**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 2	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 936-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 2842-DTB-2020	19/02/2023	18/02/2024
Gaseoue Sampler Sr. No. 6896-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Khajne Amere Porscodem - Goa State (G-A5)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	70
Average Wind Speed (km/hr)	69.6	Average Wind direction (Deg)	302
Latitude	N 15°40'38.0"	Longitude	E 73°46'21.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0003	4.7	50.05	12.35	< 6.0	< 9.0	0.33	131.5	0.03	< 1.0
2	04.01.2024	GA/24/0023	5.3	51.37	12.72	< 6.0	< 9.0	0.56	121.0	0.04	< 1.0
3	08.01.2024	GA/24/0049	4.5	47.13	14.35	< 6.0	< 9.0	0.76	141.0	0.02	< 1.0
4	11.01.2024	GA/24/0085	5.4	50.15	11.77	< 6.0	< 9.0	0.76	121.1	0.03	< 1.0
5	15.01.2024	GA/24/0108	5.4	53.44	12.14	< 6.0	< 9.0	0.33	131.0	0.04	< 1.0
6	18.01.2024	GA/24/0126	6.5	51.63	12.10	< 6.0	< 9.0	0.59	124.0	0.05	< 1.0
7	22.01.2024	GA/24/0149	8.1	48.38	13.81	< 6.0	< 9.0	0.67	120.0	0.05	< 1.0
8	25.01.2024	GA/24/0169	8.7	50.14	10.31	< 6.0	< 9.0	0.53	131.6	0.05	< 1.0
9	29.01.2024	GA/24/0189	9.2	48.56	11.68	< 6.0	< 9.0	0.39	125.1	0.04	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

*Sachin B. Gaonkar*

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



*K. B. Jagayathika*  
CHECKED BY

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 3	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 942-DTA-2020	19/02/2023	18/02/2024
Respirable Dust Sampler Sr. No. 670-E-23	18/10/2023	17/10/2024
Gaseous Sampler Sr. No. 6904-DTB-2020	18/02/2023	17/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Rajvil Wada Torxem - Goa State (G-A6)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	69
Average Wind Speed (km/hr)	76	Average Wind direction (Deg)	318
Latitude	N 15°48'40.0"	Longitude	E 73°52'50.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0006	24.7	55.26	13.06	< 6.0	< 9.0	0.66	143.3	0.04	< 1.0
2	04.01.2024	GA/24/0026	21.0	52.30	12.48	< 6.0	< 9.0	0.61	135.0	0.06	< 1.0
3	08.01.2024	GA/24/0052	19.8	53.40	12.31	< 6.0	< 9.0	0.81	135.9	0.05	< 1.0
4	11.01.2024	GA/24/0088	23.0	61.83	16.09	< 6.0	< 9.0	0.36	124.8	0.04	< 1.0
5	15.01.2024	GA/24/0111	20.5	59.06	13.39	< 6.0	< 9.0	0.24	108.4	0.02	< 1.0
6	18.01.2024	GA/24/0129	24.2	57.23	16.05	< 6.0	< 9.0	0.22	125.1	0.03	< 1.0
7	22.01.2024	GA/24/0152	26.4	55.31	14.35	< 6.0	< 9.0	0.39	123.0	0.05	< 1.0
8	25.01.2024	GA/24/0172	28.1	54.36	10.98	< 6.0	< 9.0	0.44	149.6	0.07	< 1.0
9	29.01.2024	GA/24/0192	27.2	52.23	12.39	< 6.0	< 9.0	0.78	135.0	0.03	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 6	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 56-C-22	15/12/2023	14/12/2024
Respirable Dust Sampler Sr. No. 1329-R-273-DTC-2015	17/02/2023	16/02/2024
Gaseous Sampler Sr. No. 6773-DTB-2020	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025





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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Satarda - Maharashtra State (M-A1)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	73
Average Wind Speed (km/hr)	68.8	Average Wind direction (Deg)	270
Latitude	N 15°43'01.3"	Longitude	E 73°46'00.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0004	20.7	53.42	11.35	< 6.0	< 9.0	0.57	147.6	0.04	< 1.0
2	04.01.2024	GA/24/0024	22.2	54.66	12.27	< 6.0	< 9.0	0.72	130.1	0.05	< 1.0
3	08.01.2024	GA/24/0050	20.7	51.12	13.56	< 6.0	< 9.0	0.86	127.8	0.04	< 1.0
4	11.01.2024	GA/24/0086	22.6	53.76	12.72	< 6.0	< 9.0	0.44	132.3	0.02	< 1.0
5	15.01.2024	GA/24/0109	22.5	51.04	10.60	< 6.0	< 9.0	0.68	138.7	0.07	< 1.0
6	18.01.2024	GA/24/0127	26.2	54.18	12.23	< 6.0	< 9.0	0.40	137.4	0.05	< 1.0
7	22.01.2024	GA/24/0150	27.2	53.20	13.81	< 6.0	< 9.0	0.78	130.0	0.05	< 1.0
8	25.01.2024	GA/24/0170	28.4	54.82	10.06	< 6.0	< 9.0	0.61	117.1	0.07	< 1.0
9	29.01.2024	GA/24/0190	28.5	52.24	12.14	< 6.0	< 9.0	0.22	120.2	0.02	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXI) 2004	EPA Method 18

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

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 4	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1163-E-22	15/05/2023	15/05/2024
Respirable Dust Sampler Sr. No. 476-A-23	09/01/2024	08/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Dingane – Maharashtra State (M-A2)		
Average Ambient Temperature (°C)	30.0	Average Humidity (%)	68
Average Wind Speed (km/hr)	58.6	Average Wind direction (Deg)	292
Latitude	N 15°46'12.3"	Longitude	E 73°49'20.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0007	5.9	48.36	9.73	< 6.0	< 9.0	0.42	138.9	0.04	< 1.0
2	04.01.2024	GA/24/0027	4.7	49.18	8.11	< 6.0	< 9.0	0.44	120.2	0.07	< 1.0
3	08.01.2024	GA/24/0053	9.6	48.76	13.56	< 6.0	< 9.0	0.50	121.5	0.04	< 1.0
4	11.01.2024	GA/24/0089	10.8	46.16	13.43	< 6.0	< 9.0	0.82	158.1	0.07	< 1.0
5	15.01.2024	GA/24/0112	12.0	48.22	11.64	< 6.0	< 9.0	0.73	139.0	0.05	< 1.0
6	18.01.2024	GA/24/0130	8.4	46.60	10.27	< 6.0	< 9.0	0.43	149.8	0.03	< 1.0
7	22.01.2024	GA/24/0153	9.7	48.92	11.19	< 6.0	< 9.0	0.50	125.1	0.06	< 1.0
8	25.01.2024	GA/24/0173	9.0	49.30	11.64	< 6.0	< 9.0	0.49	114.1	0.04	< 1.0
9	29.01.2024	GA/24/0193	9.4	47.78	13.72	< 6.0	< 9.0	0.83	140.0	0.02	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2008	IS 5182 (Part XXV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

Note :

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- Samples will be preserved for a period 15 days from the delivery of Test Report.
- Test Results relate only to the conditions prevailing at the time of sampling.
- Customer complaint register is available at laboratory.
- Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

*Sachin B. Gaonkar*

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



*Pragya*

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 7	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 60-C-22	15/12/2023	14/12/2024
Respirable Dust Sampler Sr. No. 1284-R-228-DTK-2014	17/02/2023	16/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/02/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	January 2024		

AMBIENT AIR LOCATION			
Location of Ambient Air Station	Netarde - Maharashtra State (M-A3)		
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	70
Average Wind Speed (km/hr)	59.5	Average Wind direction (Deg)	260
Latitude	N 15°46'11.7"	Longitude	E 73°53'47.0"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.01.2024	GA/24/0005	5.1	53.41	11.77	< 6.0	< 9.0	0.69	142.3	0.06	< 1.0
2	04.01.2024	GA/24/0025	6.2	51.43	12.39	< 6.0	< 9.0	0.39	140.0	0.07	< 1.0
3	08.01.2024	GA/24/0051	6.1	53.82	12.72	< 6.0	< 9.0	0.90	145.1	0.02	< 1.0
4	11.01.2024	GA/24/0087	5.0	38.46	8.48	< 6.0	< 9.0	0.34	129.1	0.05	< 1.0
5	15.01.2024	GA/24/0110	6.1	41.76	10.31	< 6.0	< 9.0	0.39	128.2	0.04	< 1.0
6	18.01.2024	GA/24/0128	8.0	49.42	11.39	< 6.0	< 9.0	0.26	133.0	0.05	< 1.0
7	22.01.2024	GA/24/0151	10.9	51.03	12.02	< 6.0	< 9.0	0.72	122.0	0.05	< 1.0
8	25.01.2024	GA/24/0171	12.2	52.17	13.27	< 6.0	< 9.0	0.71	120.5	0.05	< 1.0
9	29.01.2024	GA/24/0191	14.7	54.47	14.64	< 6.0	< 9.0	0.50	130.5	0.04	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 5	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 940-DTA-2020	18/02/2023	17/02/2024
Respirable Dust Sampler Sr. No. 477-A-23	09/01/2024	08/01/2025
Gaseous Sampler Sr. No. 470-L-22	08/01/2024	07/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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

## TEST REPORT

NOISE LEVEL MONITORING REPORT											
Date of Issue		05/02/2024									
Name of Client		M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED									
Address of Client		ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.									
Sampling Plan		GLPL/QF/7.3/06			Sampling Procedure No.				GLPL/SOP/AA/17		
Sample Collected By		GLPL Representative									
AMBIENT AIR NOISE POLLUTION MONITORING											
Sr. No.	Date of Sampling	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						L <sub>max</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>max</sub>	L <sub>eq</sub>
1	30.01.2024	GA/24/0204	G-N1	I	Mopa Boundary	33.1	88.5	68.3	34.3	87.5	58.1
2	13.01.2024	GA/24/0103	G-N2	I	Shemecheadvan	30.0	91.1	64.7	30.6	82.8	51.2
3	24.01.2024	GA/24/0166	G-N3	C	Nagzar	42.2	87.2	59.3	30.3	84.3	52.2
4	24.01.2024	GA/24/0165	G-N4	R	Purva Casarvarnem	30.0	81.3	53.6	30.6	72.5	40.2
5	13.01.2024	GA/24/0102	G-N5	R	Chandel	30.8	77.5	52.8	32.2	69.1	43.1
6	26.01.2024	GA/24/0183	G-N6	R	Khajne Amere Porscodem	30.8	95.3	53.6	31.4	67.1	44.5
7	14.01.2024	GA/24/0104	G-N7	R	Warkhand	30.9	87.6	47.3	30.7	61.0	36.9
8	23.01.2024	GA/24/0163	G-N8	C	Rajvil Wada Torxem	32.3	87.8	51.6	30.5	60.0	44.4
9	14.01.2024	GA/24/0105	G-N9	C	Village Panchayat Tamboxem - Mopa - Ugvem	31.9	89.3	55.9	32.3	61.1	49.8
10	23.01.2024	GA/24/0164	M-N1	R	Satarda	30.5	81.4	53.8	30.3	76.1	41.2
11	05.01.2024	GA/24/0033	M-N2	R	Dingane	30.9	87.9	45.3	30.6	54.8	31.7
12	05.01.2024	GA/24/0032	M-N3	R	Netarde	30.0	91.1	52.4	30.4	65.1	43.3
<b>I – Industrial Zone, C – Commercial Zone, R – Residential Zone</b>											
1] 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 (I)			75		70				
(B)		Commercial Area (C)			65		55				
(C)		Residential Area (R)			55		45				
(D)		Silence Zone (S)			50		40				
2] Day time to reckoned in between 6:00 am to 10 pm and night time is reckoned in between 10:00 pm to 06:00 am											
3] "dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.											
4] "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.											
5] Leq : It is the energy mean of the noise level over a specified period.											
<b>Note :</b>											
1. The results relate only to the samples tested.											
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3. Test Results relate only to the conditions prevailing at the time of sampling.											
4. Customer complaint register is available at laboratory.											
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.											
For GADARK LAB PVT. LTD.											
 AUTHORIZED SIGNATORY [SACHIN B. GAONKAR ]								 CHECKED BY			

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 554067	16/05/2023	16/05/2024

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 546176	23/06/2023	23/06/2024





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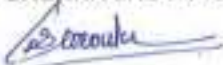
## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0095	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.6	48
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Café Gox			
Sampling Details	Café Gox Water Fountain Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.44	-	6.5 – 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	10.04	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	46	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	5.00	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	2.00	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	24	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

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## TEST REPORT

Report No.	GW/24/0095	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.016	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	4.01	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	3.41	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	3.2	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.7	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## TEST REPORT

Report No.	GW/24/0095	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

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Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/01/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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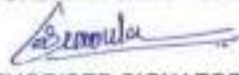
## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0096	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.6	48
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	C.F.R.M.			
Sampling Details	C.F.R.M. Water Fountain Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.40	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	16.06	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	64	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	10.01	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	3.00	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	32	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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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

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

### TEST REPORT

Report No.	GW/24/00096	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.010	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	8.02	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.92	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	4.8	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.6	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/24/0096	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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#### Note:

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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/01/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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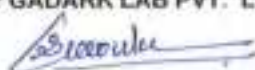
## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0097	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.6	48
Sampling Plan	GLPL/QF/7.3/08	Sampling Procedure No.	APHA 1060	
Sampling Point	WTP RO			
Sampling Details	WTP RO Outlet Water Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.03	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	6.02	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	26	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	4.00	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	28	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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## TEST REPORT

Report No.	GW/24/0097	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

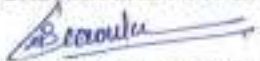
### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	3.21	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.43	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.1	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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## TEST REPORT


Report No.	GW/24/0097	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

  
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Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/01/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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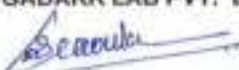
## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0098	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C 24.6	Humidity % 48
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	PTB L0			
Sampling Details	PTB L0 Water Fountain Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.40	-	6.5 – 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	8.03	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	45	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	4.00	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	1.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	24	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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## TEST REPORT

Report No.	GW/24/0098	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

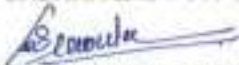
### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.014	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530-B,C
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	4.81	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.92	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	3.0	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.8	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## TEST REPORT

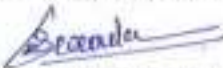
Report No.	GW/24/0098	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

  
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[SACHIN B. GAONKAR]



  
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### Note:

1. Results relate only to the sample 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. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/01/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





# 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

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0100	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.6	48
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Aircraft Filling			
Sampling Details	Aircraft Filling Water Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.35	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	6.02	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	27	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	3.00	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	20	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

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## TEST REPORT

Report No.	GW/24/0100	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

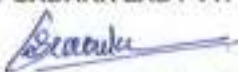
### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	4.01	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.44	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.0	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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## TEST REPORT

Report No.	GW/24/0100	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/01/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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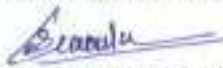
## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0094	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C 24.6	Humidity% 48
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Admin Ground Floor			
Sampling Details	Admin Gr. Floor Fountain Water Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.53	-	6.5 – 8.5	APHA 4500 H'
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	14.06	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	52	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	6.01	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	2.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	26	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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## TEST REPORT

Report No.	GW/24/0094	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.022	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	5.61	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.92	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	3.6	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	1.0	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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## TEST REPORT

Report No.	GW/24/0094	Report Date	22/01/2024
Order / Reference	As Per Dated 17/01/2024	Sample Received on	18/01/2024
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - B
35	E.Coli at 44.5°C for 24 hrs.	Absent	MPN Index/100ml	Shall not be detectable in any 100 ml sample	APHA 9221 - G

End

For GADARK LAB PVT. LTD.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/01/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2023/02/89	16/02/2023	15/02/2024
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0099	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	61
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Inlet			
Sampling Details	STP Inlet Water Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

### Chemical Testing:

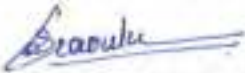
Sr. No.	Parameters	Result	Unit	Method
1	pH	6.44	-	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	1721	mg/lit	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	900	mg/lit	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	520	mg/lit	APHA 2540 D
5	Oil & Grease (O & G)	18	mg/lit	APHA 5520 B
6	Ammonia	87.36	mg/lit	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	102.48	mg/lit	APHA 4500-Norg

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Method
8	Fecal Coliform at 44.5°C for 24 hrs.	> 1600	MPN Index/100ml	APHA 9221 E

End

For GADARK LAB PVT. LTD.

  
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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	16/02/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024



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## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0102	Report Date	22/01/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 17/01/2024	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	61
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Outlet			
Sampling Details	STP Outlet Water Sample	Date of Collection	17/01/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/01/2024	
Analysis Started On	18/01/2024	Analysis Completed On	22/01/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

### Chemical Testing:

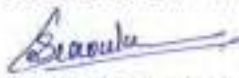
Sr. No.	Parameters	Result	Unit	Limits	Method
1	pH	6.88	-	5.5 - 9.0	APHA 4500 H*
2	Chemical Oxygen Demand (COD)	48	mg/lit	50.00	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	7	mg/lit	10.00	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	14	mg/lit	20.00	APHA 2540 D
5	Oil & Grease (O & G)	< 0.1	mg/lit	10.00	APHA 5520 B
6	Ammonia	2.80	mg/lit	5.00	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	8.96	mg/lit	10.00	APHA 4500-Norg

### Microbiological Parameters:

8	Fecal Coliform at 44.5°C for 24 hrs.	84	MPN Index/100ml	100	APHA 9221 E
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End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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### Note:

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/20 23/02/89	16/02/2023	15/02/2024
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024



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 Tel.: (022) 2577 7069 / 2577 7070 / 2085 0081 • +91 98213 12307

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
<b>AMBIENT AIR LOCATION</b>			
Location of Ambient Air Station	Mopa Boundry - Goa State (G-A1)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	61
Average Wind Speed (km/hr)	76	Average Wind direction (Deg)	318
Latitude	N 15°45'51.1"	Longitude	E 73°56'32.4"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0214	39.2	63.61	18.17	< 6.0	< 9.0	0.59	139.1	0.03	< 1.0
2	05.02.2024	GA/24/0271	38.7	65.02	17.47	< 6.0	< 9.0	0.48	146.5	0.02	< 1.0
3	08.02.2024	GA/24/0313	34.3	63.97	15.64	< 6.0	< 9.0	0.57	127.1	0.02	< 1.0
4	12.02.2024	GA/24/0362	32.6	65.04	17.47	< 6.0	< 9.0	0.56	124.9	0.04	< 1.0
5	15.02.2024	GA/24/0398	34.1	63.28	15.97	< 6.0	< 9.0	0.72	140.0	0.06	< 1.0
6	19.02.2024	GA/24/0426	33.1	65.17	17.71	< 6.0	< 9.0	0.40	117.1	0.05	< 1.0
7	22.02.2024	GA/24/0446	34.3	66.22	19.29	< 6.0	< 9.0	0.57	123.5	0.05	< 1.0
8	26.02.2024	GA/24/0459	32.6	63.76	15.55	< 6.0	< 9.0	0.51	145.3	0.07	< 1.0
9	29.02.2024	GA/24/0495	34.1	65.48	17.38	< 6.0	< 9.0	0.42	123.1	0.08	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5152 (Part 4)	IS 5152 (Part XX.) 2006	IS 5152 (Part XXIV) 2006	IS 5152 (Part I) 2001	IS 5152 (Part VII) 2003	IS 5152 (Part X) 1995	GC Method	IS 5152 (Part XXII) 2004	EPA Method 19

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

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For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 9	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1256-L-22	08/01/2024	07/01/2025
Respirable Dust Sampler Sr. No. 1544-DTJ-2019	08/10/2023	07/10/2024
Gaseous Sampler Sr. No. 210-B-2022	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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Tel.: (022) 2577 7088 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Shemachadvan Goa State (G-A2)		
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	64
Average Wind Speed (km/hr)	75	Average Wind direction (Deg)	322
Latitude	N 15°42'03.1"	Longitude	E 73°49'21.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0213	29.6	53.23	14.47	< 6.0	< 9.0	0.69	122.5	0.04	< 1.0
2	05.02.2024	GA/24/0270	29.4	54.82	13.56	< 6.0	< 9.0	0.58	135.2	0.04	< 1.0
3	08.02.2024	GA/24/0312	27.4	59.01	12.56	< 6.0	< 9.0	0.34	126.9	0.05	< 1.0
4	12.02.2024	GA/24/0361	30.0	55.66	14.35	< 6.0	< 9.0	0.44	120.4	0.05	< 1.0
5	15.02.2024	GA/24/0397	28.3	53.93	12.18	< 6.0	< 9.0	0.67	141.2	0.05	< 1.0
6	19.02.2024	GA/24/0425	29.9	54.76	13.76	< 6.0	< 9.0	0.62	153.7	0.05	< 1.0
7	22.02.2024	GA/24/0445	30.1	55.08	15.88	< 6.0	< 9.0	0.61	124.9	0.02	< 1.0
8	26.02.2024	GA/24/0458	28.3	52.37	13.81	< 6.0	< 9.0	0.42	134.6	0.02	< 1.0
9	29.02.2024	GA/24/0494	30.7	51.21	14.85	< 6.0	< 9.0	0.61	129.6	0.04	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2005	IS 5182 (Part XXIV) 2005	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2005	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXIII) 2004	EPA Method 15

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For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 8	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 325-DTE-2015	13/02/2024	12/02/2025
Respirable Dust Sampler Sr. No. 478-A-23	09/01/2024	08/01/2025
Gaseous Sampler Sr. No. 471-L-22	08/01/2024	07/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025





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Tel. : (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93219 12367

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/08	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Nagzar - Goa State (G-A3)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	60
Average Wind Speed (km/hr)	89.5	Average Wind direction (Deg)	314
Latitude	N 15°45'37.3"	Longitude	E 73°53'14.22"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0203	37.3	64.83	21.96	< 6.0	< 9.0	0.56	125.0	0.05	< 1.0
2	05.02.2024	GA/24/0283	35.8	63.58	19.29	< 6.0	< 9.0	0.74	140.6	0.05	< 1.0
3	08.02.2024	GA/24/0305	30.5	61.19	17.88	< 6.0	< 9.0	0.87	133.1	0.02	< 1.0
4	12.02.2024	GA/24/0354	29.6	63.93	16.72	< 6.0	< 9.0	0.80	146.1	0.03	< 1.0
5	15.02.2024	GA/24/0390	31.0	65.49	17.84	< 6.0	< 9.0	0.44	139.9	0.04	< 1.0
6	19.02.2024	GA/24/0418	31.5	62.33	18.34	< 6.0	< 9.0	0.58	120.7	0.05	< 1.0
7	22.02.2024	GA/24/0438	30.5	64.68	16.67	< 6.0	< 9.0	0.64	156.2	0.06	< 1.0
8	26.02.2024	GA/24/0451	32.1	62.84	17.26	< 6.0	< 9.0	0.44	139.9	0.03	< 1.0
9	29.02.2024	GA/24/0487	29.9	61.95	15.64	< 6.0	< 9.0	0.70	131.8	0.02	< 1.0
NAAQS LIMITS *			-	100	60	80	80	2	-	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5132 (Part XXIII) 2006	IS 5132 (Part XXIV) 2006	IS 5102 (Part II) 2001	IS 5102 (Part VI) 2006	IS 5182 (Part X) 1999	GC Method	IS 5102 (Part XXV) 2004	EPA Method 18

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 1	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 934-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 2832-DTB-2020	15/02/2024	14/02/2025
Gaseous Sampler Sr. No. 6888-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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Tel.: (022) 2577 7088 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	05/03/2024		
Name of Client	Mrs. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADAGHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Purva Casarvarnem - Goa State (G-A4)		
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	66
Average Wind Speed (km/hr)	84.3	Average Wind direction (Deg)	289
Latitude	N 15°41'41.9"	Longitude	E 73°50'16.8"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0207	32.5	62.52	18.55	< 6.0	< 9.0	0.61	145.2	0.04	< 1.0
2	05.02.2024	GA/24/0264	31.0	61.50	17.01	< 6.0	< 9.0	0.67	154.6	0.03	< 1.0
3	08.02.2024	GA/24/0306	28.2	58.22	16.47	< 6.0	< 9.0	0.79	125.3	0.05	< 1.0
4	12.02.2024	GA/24/0355	31.0	59.83	17.06	< 6.0	< 9.0	0.69	145.1	0.04	< 1.0
5	15.02.2024	GA/24/0391	33.9	61.52	15.30	< 6.0	< 9.0	0.37	130.5	0.06	< 1.0
6	19.02.2024	GA/24/0419	31.9	63.03	17.13	< 6.0	< 9.0	0.34	117.4	0.06	< 1.0
7	22.02.2024	GA/24/0439	31.3	61.52	16.13	< 6.0	< 9.0	0.54	128.0	0.04	< 1.0
8	26.02.2024	GA/24/0452	29.9	63.68	15.18	< 6.0	< 9.0	0.43	120.0	0.04	< 1.0
9	29.02.2024	GA/24/0488	32.3	64.89	17.84	< 6.0	< 9.0	0.74	159.1	0.04	< 1.0
<b>NAAQS LIMITS *</b>			..	100	60	80	80	2	-	1	..
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part A)	IS 5187 (Part XXIII) 2006	IS 5192 (Part XXIV) 2018	IS 5182 (Part II) 2001	IS 5187 (Part VI) 2016	IS 5182 (Part X) 1995	GC Method	IS 5182 (Part XXII) 2004	FPA Method 12

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

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For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 2	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 936-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 2842-DTB-2020	16/02/2024	15/02/2024
Gaseous Sampler Sr. No. <del>8896</del> DTB-2020	12/02/2024	11/02/2024
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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Tel. : (022) 2577 7068 / 2577 7110 / 2085 0081 • +91 93213 12307

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/03/2024		
Name of Client	M/s GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/08	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Khajne Amere Porscodem - Goa State (G-A5)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	62
Average Wind Speed (km/hr)	79	Average Wind direction (Deg)	308
Latitude	N 15°40'38.0"	Longitude	E 73°46'21.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0208	9.9	49.58	12.27	< 6.0	< 9.0	0.58	102.1	0.05	< 1.0
2	05.02.2024	GA/24/0265	8.7	47.32	13.22	< 6.0	< 9.0	0.96	153.1	0.03	< 1.0
3	05.02.2024	GA/24/0307	8.1	45.61	9.77	< 6.0	< 9.0	0.59	125.2	0.01	< 1.0
4	12.02.2024	GA/24/0356	9.3	47.92	11.60	< 6.0	< 9.0	0.63	122.4	0.02	< 1.0
5	15.02.2024	GA/24/0392	8.7	49.85	10.40	< 6.0	< 9.0	0.68	150.7	0.05	< 1.0
6	19.02.2024	GA/24/0420	9.5	45.43	11.68	< 6.0	< 9.0	0.41	136.1	0.05	< 1.0
7	22.02.2024	GA/24/0440	7.8	48.87	12.48	< 6.0	< 9.0	0.36	81.4	0.05	< 1.0
8	26.02.2024	GA/24/0453	8.4	47.67	14.47	< 6.0	< 9.0	0.34	117.7	0.03	< 1.0
9	29.02.2024	GA/24/0489	7.8	45.67	11.77	< 6.0	< 9.0	0.50	134.8	0.02	< 1.0
NAAQS LIMITS *			--	100	60	60	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part I)	IS 5182 (Part XII) 2002	IS 5182 (Part XXIV) 2002	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2005	IS 6162 (Part X) 1998	GC Method	IS 5182 (Part XXII) 2004	FPA Method 18

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

##### Note :

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2. This 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.

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 3	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 942-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 670-E-23	18/10/2023	17/10/2024
Gaseous Sampler Sr. No. 6904-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel. : (022) 2577 7089 / 2577 7070 / 2085 0119 • 191 93213 12367

## TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QI/77.3/05	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Rajvil Wada Torxem - Goa State (G-A6)		
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	72
Average Wind Speed (km/hr)	71.1	Average Wind direction (Deg)	310
Latitude	N 15°46'40.0"	Longitude	E 73°52'50.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0211	30.4	54.33	13.31	< 6.0	< 9.0	0.53	135.0	0.04	< 1.0
2	05.02.2024	GA/24/0268	28.8	52.65	12.77	< 6.0	< 9.0	0.57	133.2	0.05	< 1.0
3	08.02.2024	GA/24/0310	25.1	56.02	11.73	< 6.0	< 9.0	0.51	120.2	0.02	< 1.0
4	12.02.2024	GA/24/0359	27.4	54.68	12.43	< 6.0	< 9.0	0.56	129.2	0.06	< 1.0
5	15.02.2024	GA/24/0395	25.9	52.65	13.35	< 6.0	< 9.0	0.63	128.8	0.06	< 1.0
6	19.02.2024	GA/24/0423	27.4	51.76	14.80	< 6.0	< 9.0	0.42	122.1	0.04	< 1.0
7	22.02.2024	GA/24/0443	28.9	55.36	15.47	< 6.0	< 9.0	0.52	164.8	0.05	< 1.0
8	26.02.2024	GA/24/0456	27.6	52.77	14.72	< 6.0	< 9.0	0.33	138.7	0.05	< 1.0
9	29.02.2024	GA/24/0492	29.2	54.39	13.14	< 6.0	< 9.0	0.57	140.0	0.03	< 1.0
<b>NAAQS LIMITS *</b>			-	100	60	60	80	2	-	1	-
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part I)	IS 5182 (Part XXIII) 2006	IS 5132 (Part XXIV) 2005	IS 5162 (Part II) 2004	IS 5152 (Part VI) 2006	IS 5162 (Part X) 1999	CO Method	IS 5182 (Part XXII) 2004	EPA Method 16

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

- Note :
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  2. Test Report shall not be reproduced except in full, without written approval of the laboratory.
  3. Samples will be preserved for a period of 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 equipment's used in monitoring and / or analysis is back side of analyst's report
- For **GADARK LAB PVT. LTD.**

  
**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



  
**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 6	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 56-C-22	15/12/2023	14/12/2024
Respirable Dust Sampler Sr. No. 1329-R-273-DTC-2015	15/02/2024	14/02/2025
Gaseous Sampler Sr. No. 6773-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 800	10/01/2024	09/01/2025





# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12307

## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
<b>AMBIENT AIR LOCATION</b>			
Location of Ambient Air Station	Satarda - Maharashtra State (M-A1)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	62
Average Wind Speed (km/hr)	71.1	Average Wind direction (Deg)	285
Latitude	N 15°43'01.3"	Longitude	E 73°48'00.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 480)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0209	30.4	54.78	14.01	< 6.0	< 9.0	0.52	161.1	0.06	< 1.0
2	05.02.2024	GA/24/0236	28.4	53.28	13.47	< 6.0	< 9.0	0.46	129.1	0.08	< 1.0
3	06.02.2024	GA/24/0308	22.2	60.10	12.23	< 6.0	< 9.0	0.91	154.7	0.02	< 1.0
4	12.02.2024	GA/24/0357	24.1	63.23	14.26	< 6.0	< 9.0	0.58	123.9	0.03	< 1.0
5	15.02.2024	GA/24/0383	26.6	65.05	12.14	< 6.0	< 9.0	0.49	125.7	0.06	< 1.0
6	19.02.2024	GA/24/0421	29.5	63.34	13.97	< 6.0	< 9.0	0.44	125.8	0.05	< 1.0
7	22.02.2024	GA/24/0441	29.0	62.90	13.22	< 6.0	< 9.0	0.44	118.5	0.06	< 1.0
8	26.02.2024	GA/24/0454	28.1	50.91	12.89	< 6.0	< 9.0	0.47	154.2	0.05	< 1.0
9	29.02.2024	GA/24/0490	29.9	53.81	13.93	< 6.0	< 9.0	0.41	133.8	0.01	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part I); 2006	IS 5182 (Part XX I); 2006	IS 5182 (Part XXIV); 2006	IS 5182 (Part II); 2001	IS 5182 (Part VI); 2002	IS 5182 (Part X); 1999	GC Method	IS 5182 (Part XXII); 2004	EPA Method 10

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

- 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 10 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 to be attached to analysis report.
- For **GADARK LAB PVT. LTD.**

  
**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 4	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1163-E-22	15/05/2023	15/05/2024
Respirable Dust Sampler Sr. No. 476-A-23	09/01/2024	08/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7058 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Dingane – Maharashtra State (M-A2)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	87
Average Wind Speed (km/hr)	60.8	Average Wind direction (Deg)	256
Latitude	N 15°46'12.3"	Longitude	E 73°48'20.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0212	6.9	48.35	12.43	< 6.0	< 9.0	0.72	133.7	0.02	< 1.0
2	05.02.2024	GA/24/0269	10.5	46.87	13.47	< 6.0	< 9.0	0.39	141.2	0.02	< 1.0
3	08.02.2024	GA/24/0311	11.6	44.16	10.60	< 6.0	< 9.0	0.36	121.3	0.05	< 1.0
4	12.02.2024	GA/24/0360	9.9	48.95	11.98	< 6.0	< 9.0	0.50	124.8	0.05	< 1.0
5	15.02.2024	GA/24/0396	8.4	48.61	12.85	< 6.0	< 9.0	0.58	149.2	0.06	< 1.0
6	19.02.2024	GA/24/0424	7.8	47.47	14.76	< 6.0	< 9.0	0.43	133.9	0.04	< 1.0
7	22.02.2024	GA/24/0444	8.6	48.58	12.97	< 6.0	< 9.0	0.41	102.4	0.06	< 1.0
8	26.02.2024	GA/24/0457	9.3	46.88	11.44	< 6.0	< 9.0	0.29	137.8	0.02	< 1.0
9	29.02.2024	GA/24/0493	8.9	48.53	12.85	< 6.0	< 9.0	0.73	142.8	0.04	< 1.0
NAAQS LIMITS *			–	100	60	80	80	2	–	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5102 (Part 4)	IS 5107 (Part XXIII); 2006	IS 5182 (Part XXIV); 2006	IS 5182 (Part II); 2001	IS 5187 (Part VI); 2006	IS 5182 (Part IX); 1999	GC Method	IS 5182 (Part XXII); 2004	FPA Method IS

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

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- Test Results relate only to the conditions prevailing at the time of sampling.
- Customer complaint register is available at laboratory.
- Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 7	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 60-C-22	15/12/2023	14/12/2024
Respirable Dust Sampler Sr. No. 1284-R-228-DTK-2014	15/02/2024	14/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	05/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	February 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Notarade - Maharashtra State (M-A3)		
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	65
Average Wind Speed (km/hr)	64.5	Average Wind direction (Deg)	268
Latitude	N 15°46'11.7"	Longitude	E 73°53'47.0"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	01.02.2024	GA/24/0210	18.4	55.34	16.22	< 6.0	< 9.0	0.51	106.7	0.05	< 1.0
2	05.02.2024	GA/24/0267	20.3	54.77	14.60	< 6.0	< 9.0	0.93	153.4	0.05	< 1.0
3	08.02.2024	GA/24/0309	8.0	42.36	9.31	< 6.0	< 9.0	0.56	122.8	0.01	< 1.0
4	12.02.2024	GA/24/0358	9.9	47.74	11.35	< 6.0	< 9.0	0.59	149.2	0.05	< 1.0
5	15.02.2024	GA/24/0394	11.7	49.56	14.93	< 6.0	< 9.0	0.62	123.9	0.05	< 1.0
6	19.02.2024	GA/24/0422	12.8	51.18	13.64	< 6.0	< 9.0	0.71	146.2	0.05	< 1.0
7	22.02.2024	GA/24/0442	15.2	54.39	14.14	< 6.0	< 9.0	0.47	88.2	0.04	< 1.0
8	28.02.2024	GA/24/0455	16.7	52.44	13.22	< 6.0	< 9.0	0.32	144.3	0.04	< 1.0
9	29.02.2024	GA/24/0491	18.0	50.30	12.77	< 6.0	< 9.0	0.86	152.5	0.04	< 1.0
<b>NAAQS LIMITS *</b>			<b>—</b>	<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>2</b>	<b>—</b>	<b>1</b>	<b>—</b>
<b>UNITS</b>			<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>mg/m<sup>3</sup></b>	<b>ppm</b>	<b>µg/m<sup>3</sup></b>	<b>ppm</b>
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXII) 2006	IS 5182 (Part XXIV) 2006	IS 5182 (Part III) 2007	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1998	GC Method	IS 5182 (Part XXII) 2004	EPA Method 8

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

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- Samples will be preserved for a period 15 days from the delivery of Test Report.
- Test Results relate only to the conditions prevailing at the time of sampling.
- Customer's complete register is available at laboratory.
- Calibration details of the equipment's used in monitoring and / or analysis back side of analysis report.

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 5	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 940-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 477-A-23	09/01/2024	08/01/2025
Gaseous Sampler Sr. No. 470-L-22	08/01/2024	07/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

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Tel.: (022) 2577 7059 / 2577 7070 / 2085 0181 • +91 93213 12367

### TEST REPORT

NOISE LEVEL MONITORING REPORT											
Date of Issue		05/03/2024									
Name of Client		M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED									
Address of Client		ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.									
Sampling Plan		GLPL/QF/7.3/08			Sampling Procedure No.				GLPL/SOP/AA/17		
Sample Collected By		GLPL Representative									
AMBIENT AIR NOISE POLLUTION MONITORING											
Sr. No.	Date of Sampling	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						L <sub>eq</sub>	L <sub>max</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>90</sub>
1	15.02.2024	GA/24/0400	G-N1	I	Mopa Boundary	31.4	86.3	61.9	32.0	76.4	47.5
2	16.02.2024	GA/24/0399	G-N2	I	Shenacheshvan	32.0	86.4	63.2	31.7	81.5	49.9
3	14.02.2024	GA/24/0373	G-N3	C	Nagar	37.9	87.1	68.4	30.3	78.5	50.7
4	14.02.2024	GA/24/0372	G-N4	R	Purva Casarvanam	32.2	86.6	52.9	35.7	75.9	41.5
5	19.02.2024	GA/24/0428	G-N5	R	Chancel	36.2	80.6	48.9	36.1	65.9	36.2
6	20.02.2024	GA/24/0436	G-N6	R	Khajna Amore Porsudeni	30.4	83.3	52.0	33.3	74.2	43.7
7	19.02.2024	GA/24/0427	G-N7	R	Werkland	32.4	82.1	55.8	31.1	72.1	43.9
8	23.02.2024	GA/24/0441	G-N8	C	Rajaji Wada Tonkam	34.3	87.9	59.1	36.0	87.4	49.1
9	23.02.2024	GA/24/0447	G-N9	C	Village Parbhayam Tarboxem - Mopa - Ujvem	35.3	91.2	58.0	30.3	63.1	44.7
10	20.02.2024	GA/24/0437	M-N1	R	Sarada	50.5	79.5	53.8	30.3	75.3	43.7
11	13.02.2024	GA/24/0394	M-N2	R	Dingane	35.5	81.4	47.6	35.1	68.5	39.1
12	13.02.2024	GA/24/0385	M-N3	R	Nelase	33.5	86.9	46.8	30.3	73.9	41.0
I – Industrial Zone, C – Commercial Zone, R – Residential Zone											
1] 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 (I)			75		70				
(B)		Commercial Area (C)			65		55				
(C)		Residential Area (R)			55		45				
(D)		Silence Zone (S)			50		40				
2] Day time is reckoned in between 5:00 am to 10 pm and night time is reckoned in between 10:00 pm to 06:00 am											
3] 'dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is audible to human hearing. A 'decibel' is a unit in which noise is measured											
4] 'A', in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.											
5] Leq : It is the energy mean of the noise level over a specified period.											
<b>Notes :</b> 1. The results relate only to the samples tested. 2. This 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. 5. Calibration details of the equipment's used in monitoring and/or analysis is back side of analysis report.											
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 554067	16/05/2023	16/05/2024

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 548176	23/06/2023	23/06/2024





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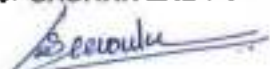
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE					
Report No.	GW24/0323		Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512				
Order / Reference	As Per Dated 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity%	
			23.7	50	
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1000		
Sampling Point	Admin Ground Floor				
Sampling Details	Admin Gr. Floor Fountain Water Sample	Date of Collection	16/02/2024		
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024		
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024		
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.49	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	8.13	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	59	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	9.08	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.50	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	12	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/24/0323	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachivadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/l L	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	2.40	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	0.012	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.48	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.6	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## TEST REPORT

Report No.	GW/24/0323	Report Date	21/02/2024
Order / Reference	As Per Dated 18/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

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### Note:

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5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	17/02/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0324	Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			23.7	50
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Café Gox			
Sampling Details	Café Gox Water Fountain Sample	Date of Collection	18/02/2024	
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.50	-	6.5 – 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2150 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	12.19	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	61	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl <sup>-</sup>	12.11	mg/lit	250.00	APHA 4500 C – B
9	Sulphate as SO <sub>4</sub> <sup>2-</sup>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	API IA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	16	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW24/0324	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

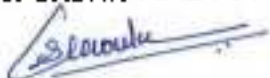
#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	2.40	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.44	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.8	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/24/0324	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli. at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

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5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GLEQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GLEQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GLEQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GLEQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GLEQ/UV/01	TECH/CAL/2023/TS,98/1	17/02/2024	15/09/2024
06.	ICP – OES	GLEQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GLEQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GLEQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GLEQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GLEQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0325	Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			23.7	50
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	WTP RO			
Sampling Details	WTP RO Inlet Water Sample	Date of Collection	18/02/2024	
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.61	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	16.26	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	62	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	14.12	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	1.00	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW24/0325	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN- D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	3.21	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.44	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.8	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/24/0325	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2015
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2015

End

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#### Note:

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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/08/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/08/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	17/02/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44,5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclavo	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/08/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT


#### ANALYSIS REPORT FOR WATER SAMPLE

Report No	GW/24/0326	Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwad Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			23.7	60
Sampling Plan	GLPL/QF/7.3/08	Sampling Procedure No.	APHA 1060	
Sampling Point	PTB Encalm Lounge L2			
Sampling Details	PTB Encalm Lounge L2 Water Sample	Date of Collection	16/02/2024	
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.06	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	2.03	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	16	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	6.05	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.35	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	8	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/24/0326	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.97	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.8	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/24/0326	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.6°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

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#### Note:

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Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	28/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS 98/1	17/02/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/05/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/08/2023	28/06/2024





# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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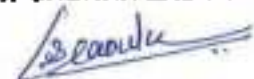
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0327	Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Data 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			23.7	50
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	International Departure			
Sampling Details	International Departure Water Fountain Sample	Date of Collection	16/02/2024	
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container:	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.38	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	16.26	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solids	22	mg/lit	500.00	APHA 2640 C
8	Chlorides as Cl	10.08	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	16	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No	GW/24/0327	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530-B,C
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN- D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5640 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	2.40	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.97	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.9	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/24/0327	Report Date	21/02/2024
Order / Reference	As Per Dated 16/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

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5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	28/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	17/02/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	28/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/MAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2207034	29/08/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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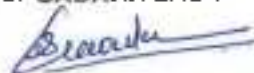
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0328		Report Date	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			23.7	50
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Aircraft Filling Apron Area			
Sampling Details	Aircraft Filling Apron Area Water Sample	Date of Collection	18/02/2024	
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.78	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	2.03	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	15	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	7.03	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	6	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.05	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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

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### TEST REPORT

Report No.	GW/24/0328	Report Date	21/02/2024
Order / Reference	As Per Dated 15/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMK Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Parrem, Mopa, North Goa - 403512		


#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN- D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.49	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.6	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K U
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/24/0328	Report Date	21/02/2024
Order / Reference	As Per Dated 18/02/2024	Sample Received on	17/02/2024
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadacniwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 18 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

For GADARK LAB PVT. LTD.

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#### Note:

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Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2207023	29/06/2023	28/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	17/02/2024	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (37 ° C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
09.	Laminar Air Flow	GL/LF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2207017	29/06/2023	28/06/2024





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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW24/0330	Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			29.2	50
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Inlet			
Sampling Details	STP Inlet Water Sample	Date of Collection	16/02/2024	
Samples Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Method
1	pH	6.90	-	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	584	mg/lit	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	232	mg/lit	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	56	mg/lit	APHA 2540 D
5	Oil & Grease (O & G)	4	mg/lit	APHA 5520 B
6	Ammonia	83.10	mg/lit	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	94.75	mg/lit	APHA 4500-Norg

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Method
8	Fecal Coliform at 44.5°C for 24 hrs.	1600	MPN Index/100ml	APHA 9221 E

End

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2207012	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207013	29/06/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/06/2023	28/06/2024
05.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207006	29/06/2023	28/06/2024
06.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	29/06/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/YAL/ 2024/02/107	15/02/2024	14/02/2025
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/06/2023	28/06/2024



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

### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0331	Report Date	21/02/2024	
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 16/02/2024	Environmental Condition of Lab	Temp °C	Humidity %
			29.2	50
Sampling Plan	GLPL/QF/7.3/08	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Outlet			
Sampling Details	STP Outlet Water Sample	Date of Collection	16/02/2024	
Sample Collected by	GLPL Representative	Sample Received On	17/02/2024	
Analysis Started On	17/02/2024	Analysis Completed On	21/02/2024	
Sample Container	Plastic Carboy - Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Limits	Method
1	pH	7.08	-	5.5 - 9.0	APHA 4500 H+
2	Chemical Oxygen Demand (COD)	40	mg/lit	50.00	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	6	mg/lit	10.00	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	18	mg/lit	20.00	APHA 2540 D
5	Oil & Grease (O & G)	< 0.1	mg/lit	10.00	APHA 5520 B
6	Ammonia	2.58	mg/lit	5.00	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	8.06	mg/lit	10.00	APHA 4500-Norg

#### Microbiological Parameters:

8	Fecal Coliform at 44.5°C for 24 hrs.	63	MPN Index/100ml	100	APHA 9221 E
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End

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/D1	AVI/2207012	29/08/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2207010	29/08/2023	28/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2207014	29/08/2023	28/06/2024
05.	Microbiological Incubator (37 °C)	GL/EQ/I-01	AVI/2207006	29/08/2023	28/06/2024
06.	Microbiological Incubator (44.5 °C)	GL/EQ/I-03	AVI/2207016	29/08/2023	28/06/2024
07.	Laminar Air Flow	GL/LF/01	TECH/VAL/ 2024/02/107	15/02/2024	14/02/2025
08.	Autoclave	GL/EQ/A/01	AVI/2207004	29/08/2023	28/08/2024



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## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		
<b>AMBIENT AIR LOCATION</b>			
Location of Ambient Air Station	Mopa Boundry - Goa State (G-A1)		
Air Stage Ambient Temperature (°C)	32.2	Average Humidity (%)	64
Average Wind Speed (km/hr)	89	Average Wind direction (Deg)	326
Latitude	N 15°45'51.1"	Longitude	E 73°56'32.4"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0512	31.1	64.19	16.05	< 6.0	< 9.0	0.40	143.2	0.06	< 1.0
2	07.03.2024	GA/24/0532	32.7	65.14	18.34	< 6.0	< 9.0	0.39	122.4	0.06	< 1.0
3	11.03.2024	GA/24/0573	33.7	63.78	17.86	< 6.0	< 9.0	0.34	125.0	0.04	< 1.0
4	14.03.2024	GA/24/0586	33.7	66.38	18.92	< 6.0	< 9.0	0.46	133.3	0.07	< 1.0
5	18.03.2024	GA/24/0599	32.9	66.10	17.71	< 6.0	< 9.0	0.58	142.4	0.06	< 1.0
6	21.03.2024	GA/24/0612	30.9	64.23	16.42	< 6.0	< 9.0	0.57	145.9	0.05	< 1.0
7	25.03.2024	GA/24/0625	32.2	67.13	20.36	< 6.0	< 9.0	0.64	143.9	0.07	< 1.0
8	28.03.2024	GA/24/0639	32.4	69.65	22.00	< 6.0	< 9.0	0.66	122.0	0.04	< 1.0
<b>NAAQS LIMITS *</b>			—	100	60	80	80	2	—	1	—
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part I)	IS 5182 (Part XXIII); 2000	IS 5182 (Part XXIV) 2006	IS 5182 (Part III) 2007	IS 5182 (Part VI) 2003	IS 5182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	—PFA Method 18

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

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3. Samples will be preserved for a period of 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.

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY

[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 9	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1256-L-22	08/01/2024	07/01/2025
Respirable Dust Sampler Sr. No. 1544-DTJ-2019	08/10/2023	07/10/2024
Gaseous Sampler Sr. No. 210-B-2022	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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## TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, MAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

### AMBIENT AIR LOCATION

Location of Ambient Air Station	Shemachadvan Goa State (G-A2)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	70
Average Wind Speed (km/hr)	60	Average Wind direction (Deg)	314
Latitude	N 15°42'08.1"	Longitude	E 73°49'21.5"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0511	29.4	53.44	15.55	< 6.0	< 9.0	0.48	137.2	0.07	< 1.0
2	07.03.2024	GA/24/0531	28.2	54.84	14.39	< 6.0	< 9.0	0.50	133.2	0.06	< 1.0
3	11.03.2024	GA/24/0572	29.2	52.10	13.02	< 6.0	< 9.0	0.49	131.4	0.05	< 1.0
4	14.03.2024	GA/24/0585	29.2	62.85	19.17	< 6.0	< 9.0	0.41	124.8	0.07	< 1.0
5	18.03.2024	GA/24/0598	27.9	60.47	18.05	< 6.0	< 9.0	0.52	142.0	0.04	< 1.0
6	21.03.2024	GA/24/0611	28.6	58.93	16.84	< 6.0	< 9.0	0.50	152.2	0.05	< 1.0
7	25.03.2024	GA/24/0624	30.9	61.08	18.98	< 6.0	< 9.0	0.57	152.3	0.03	< 1.0
	28.03.2024	GA/24/0638	32.4	61.08	21.00	< 6.0	< 9.0	0.77	139.1	0.08	< 1.0
<b>NAAQS LIMITS *</b>			-	100	60	80	60	2	-	1	-
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5102 (Part 4)	IS 5102 (Part XXIII) 2002	IS 5102 (Part XXXIV) 2008	IS 5102 (Part II) 2001	IS 6182 (Part VI) 2006	IS 6182 (Part X) 1999	GC Method	IS 5182 (Part XXII) 2004	EPA Method 16

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

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

For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



*K. S. Gaonkar*  
**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 8	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 325-DTE-2015	13/02/2024	12/02/2025
Respirable Dust Sampler Sr. No. 476-A-23	09/01/2024	08/01/2025
Gaseous Sampler Sr. No. 471-L-22	08/01/2024	07/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025





# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-51, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.  
Tel : (02362) 223519 • E mail : info@gadark.in • Website : www.gadark.in

Office : 15, Hindustan Koli near Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 88.  
Tel : (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Nagzar - Goa State (G-A3)		
Average Ambient Temperature (°C)	32.5	Average Humidity (%)	69
Average Wind Speed (km/hr)	94.4	Average Wind direction (Deg)	310
Latitude	N 15°45'37.3"	Longitude	E 73°53'14.22"
Instrument Used	FPS (APM - 550)	RDS (APM - 450)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0504	31.4	63.45	17.88	< 6.0	< 9.0	0.31	117.8	0.05	< 1.0
2	07.03.2024	GA/24/0524	28.4	60.11	16.22	< 6.0	< 9.0	0.82	142.3	0.04	< 1.0
3	11.03.2024	GA/24/0565	31.9	62.27	17.76	< 6.0	< 9.0	0.53	127.1	0.04	< 1.0
4	14.03.2024	GA/24/0578	32.2	67.82	22.33	< 6.0	< 9.0	0.64	149.4	0.05	< 1.0
5	18.03.2024	GA/24/0591	34.2	85.96	20.33	< 6.0	< 9.0	0.47	138.1	0.003	< 1.0
6	21.03.2024	GA/24/0604	32.7	64.92	18.63	< 6.0	< 9.0	0.41	148.0	0.06	< 1.0
7	25.03.2024	GA/24/0617	34.1	67.94	20.21	< 6.0	< 9.0	0.61	151.4	0.04	< 1.0
8	28.03.2024	GA/24/0631	35.3	70.07	22.95	< 6.0	< 9.0	0.50	133.6	0.06	< 1.0
NAAQS LIMITS *			--	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5102 (Part 4)	IS 5102 (Part XXIII) 2005	IS 5102 (Part XXV) 2006	IS 5102 (Part I) 2001	IS 5102 (Part VI) 2005	IS 5162 (Part X) 1999	GC Method	IS 5150 (Part XXII) 2004	FPA Method 1B

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

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For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 1	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 934-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 2832-DTB-2020	15/02/2024	14/02/2025
Gaseous Sampler Sr. No. 6888-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 800	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel. : (02362) 223510 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hinkus an Kohinor Industrial Complex, I .R.S. Marg, Vikhroli (West), Mumbai - 85.  
Tel. : (022) 2577 7066 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Purva Casarvarnem - Goa State (G-A4)		
Average Ambient Temperature (°C)	31.9	Average Humidity (%)	72
Average Wind Speed (km/hr)	81.4	Average Wind direction (Deg)	266
Latitude	N 15°41'41.9"	Longitude	E 73°50'18.8"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0505	34.0	64.47	19.09	< 8.0	< 9.0	0.51	123.4	0.04	< 1.0
2	07.03.2024	GA/24/0525	32.8	62.17	17.05	< 8.0	< 9.0	0.38	122.3	0.06	< 1.0
3	11.03.2024	GA/24/0566	34.1	64.96	18.01	< 8.0	< 9.0	0.70	131.6	0.02	< 1.0
4	14.03.2024	GA/24/0579	29.8	60.39	16.34	< 8.0	< 9.0	0.51	131.6	0.07	< 1.0
5	18.03.2024	GA/24/0582	30.9	62.57	17.76	< 8.0	< 9.0	0.42	124.2	0.01	< 1.0
6	21.03.2024	GA/24/0605	29.2	64.59	15.26	< 8.0	< 9.0	0.54	144.5	0.07	< 1.0
7	25.03.2024	GA/24/0618	30.7	65.07	17.13	< 8.0	< 9.0	0.52	132.0	0.05	< 1.0
8	28.03.2024	GA/24/0632	31.9	68.65	19.13	< 8.0	< 9.0	0.28	127.8	0.05	< 1.0
<b>NAAQS LIMITS *</b>			--	100	60	80	80	2	--	1	--
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part 4)	IS 5182 (Part XXII) 2335	IS 5182 (Part XXIV) 2335	IS 5182 (Part II) 2331	IS 5182 (Part VI) 2335	IS 5192 (Part X) 1596	GC Method	IS 5192 (Part XXII) 2004	EPA Method 18

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

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- For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



**CHECKED BY**

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 2	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 936-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 2842-DTB-2020	16/02/2024	15/02/2025
Gaseous Sampler Sr. No. 8896-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

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Tel. : (322) 2577 7368 / 2577 7070 / 2085 009 • +91 93213 12367

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADAGHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Khajne Amere Porsoodern - Goa State (G-A5)		
Average Ambient Temperature (°C)	32.0	Average Humidity (%)	67
Average Wind Speed (km/hr)	85.5	Average Wind direction (Deg)	311
Latitude	N 15°40'38.0"	Longitude	E 73°48'21.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 480)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0506	8.5	47.49	12.56	< 6.0	< 9.0	0.34	135.3	0.06	< 1.0
2	07.03.2024	GA/24/0526	9.1	49.71	11.27	< 6.0	< 9.0	0.66	145.5	0.06	< 1.0
3	11.03.2024	GA/24/0567	8.3	47.04	12.65	< 6.0	< 9.0	0.40	130.0	0.05	< 1.0
4	14.03.2024	GA/24/0580	8.3	42.48	11.77	< 6.0	< 9.0	0.48	141.1	0.06	< 1.0
5	18.03.2024	GA/24/0593	7.4	45.71	13.02	< 6.0	< 9.0	0.40	132.6	0.06	< 1.0
6	21.03.2024	GA/24/0606	8.3	47.38	11.69	< 6.0	< 9.0	0.57	134.5	0.07	< 1.0
7	25.03.2024	GA/24/0619	11.6	53.30	13.97	< 6.0	< 9.0	0.39	138.5	0.05	< 1.0
	28.03.2024	GA/24/0633	12.6	54.82	14.93	< 6.0	< 9.0	0.17	124.0	0.07	< 1.0
NAAQS LIMITS *			-	100	60	80	80	2	-	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part 4)	IS 5182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2003	IS 5182 (Part II) 2001	IS 5182 (Part VI) 2006	IS 5182 (Part X) 1999	CG Method	IS 5182 (Part XXII) 2004	EPA Method 18

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

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- Calibration records of the equipment's used in monitoring and / or analysis is back side of analysis report.

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 3	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 942-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 670-E-23	18/10/2023	17/10/2024
Gaseous Sampler Sr. No. 6904-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel.: (022) 2577 7069 / 2577 7070 / 2085 0981 • -9' 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/Q1/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Rajvil Wada Torxcm - Goa State (G-A6)		
Average Ambient Temperature (°C)	32.1	Average Humidity (%)	62
Average Wind Speed (km/hr)	86.3	Average Wind direction (Deg)	280
Latitude	N 15°48'40.0"	Longitude	E 73°52'50.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 450)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0509	27.8	55.21	14.85	< 6.0	< 9.0	0.39	132.3	0.05	< 1.0
2	07.03.2024	GA/24/0529	29.1	53.07	15.43	< 6.0	< 9.0	0.57	137.7	0.07	< 1.0
3	11.03.2024	GA/24/0570	28.2	55.04	14.47	< 6.0	< 9.0	0.42	122.4	0.06	< 1.0
4	14.03.2024	GA/24/0583	28.2	60.70	18.21	< 6.0	< 9.0	0.44	143.4	0.06	< 1.0
5	18.03.2024	GA/24/0586	26.5	58.32	16.72	< 6.0	< 9.0	0.49	133.4	0.04	< 1.0
6	21.03.2024	GA/24/0609	27.6	55.01	14.97	< 6.0	< 9.0	0.72	154.2	0.04	< 1.0
7	25.03.2024	GA/24/0622	30.5	58.91	18.42	< 6.0	< 9.0	0.47	139.9	0.06	< 1.0
8	28.03.2024	GA/24/0636	31.0	60.39	20.04	< 6.0	< 9.0	0.50	117.0	0.06	< 1.0
<b>NAAQS LIMITS *</b>			—	100	60	80	80	2	--	1	—
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part I)	IS 5182 (Part XXXI); 2006	IS 5182 (Part XXXI); 2008	IS 5182 (Part II); 2007	IS 5182 (Part VI); 2008	IS 5182 (Part X); 1986	GU Method	IS 5182 (Part XXXI); 2004	LPA Method 18

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

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For GADARK LAB PVT. LTD.

**AUTHORISED SIGNATORY**  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 6	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 56-C-22	15/12/2023	14/12/2024
Respirable Dust Sampler Sr. No. 1329-R-273-DTC-2015	15/02/2024	14/02/2025
Gaseous Sampler Sr. No. 6773-DTB-2020	12/02/2024	11/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 800	10/01/2024	09/01/2025





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Tel.: (022) 2577 7669 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

AMBIENT AIR QUALITY MONITORING REPORT			
Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPI Representative		
Month of Sampling	March 2024		
AMBIENT AIR LOCATION			
Location of Ambient Air Station	Satarda - Maharashtra State (M-A1)		
Average Ambient Temperature (°C)	32.3	Average Humidity (%)	65
Average Wind Speed (km/hr)	91.2	Average Wind direction (Deg)	270
Latitude	N 15°43'01.3"	Longitude	E 73°46'00.2"
Instrument Used	FPS (APM - 550)	RDS (APM - 460)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0507	28.7	54.18	14.10	< 6.0	< 9.0	0.28	133.8	0.04	< 1.0
2	07.03.2024	GA/24/0527	25.4	52.55	12.10	< 6.0	< 9.0	0.60	132.4	0.05	< 1.0
3	11.03.2024	GA/24/0568	26.1	51.19	11.55	< 6.0	< 9.0	0.74	152.3	0.05	< 1.0
4	14.03.2024	GA/24/0581	25.3	59.19	16.01	< 6.0	< 9.0	0.32	134.1	0.05	< 1.0
5	18.03.2024	GA/24/0594	26.8	56.80	14.18	< 6.0	< 9.0	0.18	148.3	0.05	< 1.0
6	21.03.2024	GA/24/0607	27.4	54.43	12.60	< 6.0	< 9.0	0.60	144.0	0.06	< 1.0
7	25.03.2024	GA/24/0620	29.4	58.20	14.60	< 6.0	< 9.0	0.63	151.9	0.07	< 1.0
	28.03.2024	GA/24/0634	29.3	60.39	17.01	< 6.0	< 9.0	0.51	128.2	0.05	< 1.0
NAAQS LIMITS *			—	100	60	80	80	2	--	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part I)	IS 6182 (Part XXIII) 2006	IS 5182 (Part XXIV) 2019	IS 6182 (Part II) 2011	IS 6182 (Part VI) 2006	IS 6182 (Part X) 1999	GC Method	IS 6182 (Part XXII) 2004	EPA Method 16

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

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For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 4	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 1163-E-22	15/05/2023	15/05/2024
Respirable Dust Sampler Sr. No. 476-A-23	09/01/2024	08/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H 54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 52h.  
Tel. : (02362) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kef inour Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel. : (022) 2577 7969 / 2577 7070 / 2085 0091 • +91 93213 12367

## TEST REPORT

### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7 3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

### AMBIENT AIR LOCATION

Location of Ambient Air Station	Dingane – Maharashtra State (M-A2)		
Average Ambient Temperature (°C)	31.8	Average Humidity (%)	66
Average Wind Speed (km/hr)	71.3	Average Wind direction (Deg)	260
Latitude	N 15°46'12.3"	Longitude	E 73°49'20.5"
Instrument Used	TPS (APM - 550)	RDS (APM - 450)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0510	9.7	46.03	11.64	< 6.0	< 9.0	0.46	146.2	0.06	< 1.0
2	07.03.2024	GA/24/0530	6.8	47.94	13.51	< 6.0	< 9.0	0.48	128.3	0.06	< 1.0
3	11.03.2024	GA/24/0571	8.3	45.13	12.02	< 6.0	< 9.0	0.46	122.0	0.05	< 1.0
4	14.03.2024	GA/24/0584	8.3	55.12	13.84	< 6.0	< 9.0	0.42	131.2	0.07	< 1.0
5	18.03.2024	GA/24/0597	9.3	53.86	11.14	< 6.0	< 9.0	0.46	123.4	0.05	< 1.0
6	21.03.2024	GA/24/0610	7.6	51.16	13.14	< 6.0	< 9.0	0.42	130.2	0.07	< 1.0
7	25.03.2024	GA/24/0623	8.0	55.62	15.01	< 6.0	< 9.0	0.66	161.0	0.06	< 1.0
8	28.03.2024	GA/24/0637	11.1	58.19	17.05	< 6.0	< 9.0	0.42	123.4	0.06	< 1.0
<b>NAAQS LIMITS *</b>			—	100	60	80	80	2	—	1	—
<b>UNITS</b>			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>	ppm	µg/m <sup>3</sup>	ppm
<b>METHOD</b>			IS 5182 (Part I)	IS 5182 (Part XXIII) 2000	IS 5182 (Part XXIV) 2003	IS 5182 (Part I); 2001	IS 5182 (Part VI) 2000	IS 5182 (Part X) 1999	GC Method	IS 5102 (Part XXII) 2004	LPA Method '0

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

**Note :**

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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's duplicate register is available at laboratory.
6. Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

For **GADARK LAB PVT. LTD.**

**AUTHORISED SIGNATORY**  
**[SACHIN B. GAONKAR]**



*trBogayath*  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 7	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 60-C-22	15/12/2023	14/12/2024
Respirable Dust Sampler Sr. No. 1284-R-228-DTK-2014	15/02/2024	14/02/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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Tel.: (022) 2577 7068 / 2577 7070 / 2085 0091 • -81 93213 12367

### TEST REPORT

#### AMBIENT AIR QUALITY MONITORING REPORT

Report Date	02/04/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED		
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.		
Sampling Plan	GLPL/QF/7.3/06	Page No.	1 of 1
Sample Collected By	GLPL Representative		
Month of Sampling	March 2024		

#### AMBIENT AIR LOCATION

Location of Ambient Air Station	Nelarde - Maharashtra State (M-A3)		
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	70
Average Wind Speed (km/hr)	66.4	Average Wind direction (Deg)	270
Latitude	N 15°46'11.7"	Longitude	E 73°53'47.0"
Instrument Used	FPS (APM - 550)	RDS (APM - 480)	GPS (APM - 411)

Sr. No.	Date of Sampling	Report No.	PARAMETERS								
			SPM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	CO <sub>2</sub>	Lead	VOC
1	04.03.2024	GA/24/0506	19.0	51.84	13.14	< 6.0	< 9.0	0.41	153.8	0.05	< 1.0
2	07.03.2024	GA/24/0526	17.3	54.05	14.76	< 6.0	< 9.0	0.50	128.0	0.05	< 1.0
3	11.03.2024	GA/24/0569	16.7	50.64	12.14	< 6.0	< 9.0	0.61	136.6	0.02	< 1.0
4	14.03.2024	GA/24/0582	13.5	46.86	10.73	< 6.0	< 9.0	0.37	140.5	0.02	< 1.0
5	18.03.2024	GA/24/0595	14.6	45.44	11.81	< 6.0	< 9.0	0.63	140.7	0.05	< 1.0
6	21.03.2024	GA/24/0608	15.9	50.09	13.10	< 6.0	< 9.0	0.46	150.8	0.07	< 1.0
7	25.03.2024	GA/24/0621	14.4	51.86	15.43	< 6.0	< 9.0	0.60	135.7	0.07	< 1.0
8	28.03.2024	GA/24/0635	15.9	52.90	16.51	< 6.0	< 9.0	0.61	124.3	0.06	< 1.0
NAAQS LIMITS *			-	100	50	80	80	2	-	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>	ppm	µg/m <sup>3</sup>	ppm
METHOD			IS 5182 (Part I)	IS 5182 (Part XXIII); 2006	IS 5182 (Part XXIV); 2006	IS 5182 (Part III); 2001	IS 5182 (Part V); 2006	IS 5182 (Part X); 1998	ISO Method	IS 5182 (Part XXII); 2004	EPA Method 18

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

##### Note:

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- Customer's analytical register is available at laboratory.
- Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Ambient Instrument No. 5	Calibrated On	Calibration Due Date
Fine Particulate Sampler S. No. 940-DTA-2020	14/02/2024	13/02/2025
Respirable Dust Sampler Sr. No. 477-A-23	09/01/2024	08/01/2025
Gaseous Sampler Sr. No. 470-L-22	08/01/2024	07/01/2025
UV Spectrophotometer Sr. No. Equiptronics EQ 826	16/09/2023	15/09/2024
Gas Chromatograph (GC) Sr. No. Thermo-Fisher Trace 600	10/01/2024	09/01/2025



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## TEST REPORT

STACK EMISSION REPORT					
Test Report No.	GA/24/0521	Test Report Date	11/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED				
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, ADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA - 403 512.				
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	GLPL/SOP/SE/11		
Sample Collected By	GLPL Representative	Environmental Condition of Lab			
Date of Sampling	06/03/2024	Temperature (°C)	30.4	Humidity (%)	52.0
Sample Received on	07/03/2024	Analysis Period		07/03/2024 To 11/03/2024	

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	D. G. SET NO. 1 (2000 KVA) [S-1]
Lab Reference No.	GA/24/0521
Time of Sampling (Hrs)	16:20
Stack Diameter [mm]	457
Height [Meter]	30.0
Type of Fuel	HSD
Consumption of Fuel [Lit/hr]	250
Temperature of flue gas [°C]	476
Average flue gas velocity [m/s]	21.1
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	4966

### ANALYSIS REPORT :

Parameters	Unit	Results	GSPCB Limits**	Sampling & Analysis Methods
TPM / SPM	mg/Nm <sup>3</sup>	39.7	75 mg/Nm <sup>3</sup>	IS 11255 (Part I) 1985
Sulphur Dioxide	mg/Nm <sup>3</sup>	108.8	---	IS 11255 (Part II) 1985
NOx	ppm v/v	33.9	710 ppm v/v	IS 11255 (Part VII) 2005
CO	mg/Nm <sup>3</sup>	15.5	150 mg/Nm <sup>3</sup>	APHA Edition II-134
NMHC	mg/Nm <sup>3</sup>	13.2	100 mg/Nm <sup>3</sup>	IS 5182 Part 21/2001

\*\*Consent No. 12/2022-PCB/1322094/R008891

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Instrument Name	Calibrated On	Calibration Due Date
Stack Monitoring Kit – Sr. No. 6120	09/11/2023	08/11/2024
UV Spectrophotometer – GL/EQ/UV/01	16/09/2023	15/09/2024
Analytical Balance - GL/EQ/BAL/03	30/06/2023	29/06/2024





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## TEST REPORT

STACK EMISSION REPORT					
Test Report No.	GA/24/0522	Test Report Date	11/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED				
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, ADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA - 403 512.				
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	GLPL/SOP/SE/11		
Sample Collected By	GLPL Representative	Environmental Condition of Lab			
Date of Sampling	06/03/2024	Temperature (°C)	30.4	Humidity (%)	52.0
Sample Received on	07/03/2024	Analysis Period	07/03/2024 To 11/03/2024		

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	D. G. SET NO. 2 (2000 KVA) [S-2]
Lab Reference No.	GA/24/0522
Time of Sampling (Hrs)	17:18
Stack Diameter [mm]	457
Height [Meter]	30.0
Type of Fuel	HSD
Consumption of Fuel [Lit/hr]	250
Temperature of flue gas [°C]	461
Average flue gas velocity [m/s]	22.7
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	5296

### ANALYSIS REPORT :

Parameters	Unit	Results	GSPCB Limits**	Sampling & Analysis Methods
TPM / SPM	mg/Nm <sup>3</sup>	44.1	75 mg/Nm <sup>3</sup>	IS 11255 (Part I) 1985
Sulphur Dioxide	mg/Nm <sup>3</sup>	100.4	---	IS 11255 (Part II) 1985
NO <sub>x</sub>	ppm v/v	54.9	710 ppm v/v	IS 11255 (Part VII) 2005
CO	mg/Nm <sup>3</sup>	12.5	150 mg/Nm <sup>3</sup>	APHA Edition II-134
NMHC	mg/Nm <sup>3</sup>	12.5	100 mg/Nm <sup>3</sup>	IS 5182 Part 21/2001

\*\*Consent No. 12/2022-PCB/1322094/R008891

End

For GADARK LAB PVT. LTD.

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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Instrument Name	Calibrated On	Calibration Due Date
Stack Monitoring Kit – Sr. No. 6120	09/11/2023	08/11/2024
UV Spectrophotometer – GL/EQ/UV/01	16/09/2023	15/09/2024
Analytical Balance - GL/EQ/BAL/03	30/06/2023	29/06/2024



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## TEST REPORT

STACK EMISSION REPORT					
Test Report No.	GA/24/0523	Test Report Date	11/03/2024		
Name of Client	M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED				
Address of Client	ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, ADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA - 403 512.				
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	GLPL/SOP/SE/11		
Sample Collected By	GLPL Representative	Environmental Condition of Lab			
Date of Sampling	06/03/2024	Temperature (°C)	30.4	Humidity (%)	52.0
Sample Received on	07/03/2024	Analysis Period	07/03/2024 To 11/03/2024		

### SAMPLING DETAILS - STACK EMISSION

Stack Attached to	D. G. SET NO. 3 (2000 KVA) [S-3]
Lab Reference No.	GA/24/0523
Time of Sampling (Hrs)	18:10
Stack Diameter [mm]	457
Height [Meter]	30.0
Type of Fuel	HSD
Consumption of Fuel [Lit/hr]	250
Temperature of flue gas [°C]	473
Average flue gas velocity [m/s]	21.8
Average volume of flue gas discharged [Nm <sup>3</sup> /hr]	5141

### ANALYSIS REPORT :

Parameters	Unit	Results	GSPCB Limits**	Sampling & Analysis Methods
TPM / SPM	mg/Nm <sup>3</sup>	48.1	75 mg/Nm <sup>3</sup>	IS 11255 (Part I) 1985
Sulphur Dioxide	mg/Nm <sup>3</sup>	117.1	---	IS 11255 (Part II) 1985
NOx	ppm v/v	65.3	710 ppm v/v	IS 11255 (Part VII) 2005
CO	mg/Nm <sup>3</sup>	12.0	150 mg/Nm <sup>3</sup>	APHA Edition II-134
NMHC	mg/Nm <sup>3</sup>	11.9	100 mg/Nm <sup>3</sup>	IS 5182 Part 21/2001

\*\*Consent No. 12/2022-PCB/1322094/R008891

End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

Instrument Name	Calibrated On	Calibration Due Date
Stack Monitoring Kit – Sr. No. 6120	09/11/2023	08/11/2024
UV Spectrophotometer – GL/EQ/UV/01	16/09/2023	15/09/2024
Analytical Balance - GL/EQ/BAL/03	30/06/2023	29/06/2024



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### TEST REPORT

NOISE LEVEL MONITORING REPORT											
Date of Issue		01/04/2024									
Name of Client		M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED									
Address of Client		ADMINISTRATIVE BLOCK, MOPA INTERNATIONAL AIRPORT, DADACHIWADI ROAD, NAGZAR, TALUKA PERNEM, MOPA, NORTH GOA 403512.									
Sampling Plan		GLPL/QF/7.3/06			Sampling Procedure No.				GLPL/SOP/AA/17		
Sample Collected By		GLPL Representative									
AMBIENT AIR NOISE POLLUTION MONITORING											
Sr. No.	Date of Sampling	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>	L <sub>eq</sub>
1	15.03.2024	GA/24/0588	G-N1	I	Mopa Boundary	30.2	91.8	57.8	31.1	79.0	47.4
2	15.03.2024	GA/24/0587	G-N2	I	Shemecheadvan	30.8	96.4	62.6	31.3	75.5	44.8
3	13.03.2024	GA/24/0577	G-N3	C	Nagzar	39.1	82.3	57.9	32.5	75.9	50.4
4	13.03.2024	GA/24/0576	G-N4	R	Purva Casarvarnem	30.2	80.3	53.8	30.5	64.9	42.3
5	18.03.2024	GA/24/0601	G-N5	A	Chandel	30.2	76.1	53.7	31.8	62.8	44.1
6	22.03.2024	GA/24/0614	G-N6	R	Khajne Amere Porscodem	30.9	78.3	44.6	30.7	55.2	40.8
7	18.03.2024	GA/24/0600	G-N7	R	Warkhand	30.7	74.2	47.8	36.5	59.6	38.8
8	19.03.2024	GA/24/0602	G-N8	C	Rajvil Wada Torxem	34.7	91.4	53.5	30.0	72.8	45.2
9	22.03.2024	GA/24/0613	G-N9	A	Village Panchayat Tamboxem - Mopa - Ugvem	37.7	78.9	55.4	30.5	70.8	51.9
10	19.03.2024	GA/24/0603	M-N1	R	Satarda	30.5	87.3	50.0	30.4	70.7	42.6
11	12.03.2024	GA/24/0574	M-N2	R	Dingane	30.3	87.9	52.2	30.6	65.9	38.5
12	12.03.2024	GA/24/0575	M-N3	R	Netarde	30.2	95.1	52.4	30.8	63.3	35.7
I – Industrial Zone, C – Commercial Zone, R – Residential Zone											
1] 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 (I)			75		70				
(B)		Commercial Area (C)			65		55				
(C)		Residential Area (R)			55		45				
(D)		Airport Noise Zone (A)			65		60				
2] Day time to reckoned in between 6:00 am to 10 pm and night time is reckoned in between 10:00 pm to 06:00 am											
3] "dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.											
4] "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.											
5] Leq : It is the energy mean of the noise level over a specified period.											
<b>Note :</b> 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. 5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.											
For GADARK LAB PVT. LTD.											
 <b>AUTHORISED SIGNATORY</b> <b>[SACHIN B. GAONKAR]</b>								 <b>CHECKED BY</b>			

**CALIBRATION DETAILS OF EQUIPMENT USED FOR SAMPLING**

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 554067	16/05/2023	16/05/2024

<b>Equipment Name</b>	<b>Calibrated On</b>	<b>Calibration Due Date</b>
Noise Level Meter Sr. No. 546176	23/06/2023	23/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0558	Report Date	73/03/2024	
Client Name & Address	GMK Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachwadi Road, Nagzar, Taluka Poment, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			21.2	52
Sampling Plan	GLPL/QF/7.3/05	Sampling Procedure No.	APHA 1060	
Sampling Point	WTP RO			
Sampling Details	WTP RO Inlet Water Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy / Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.51	-	6.5 - 8.5	APHA 4500 H+
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APIIA 2150 B
6	Total Alkalinity	4.04	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	17	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	4.0	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	8	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/24/056B	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 U
18	Cyanide	< 0.001	mg/lit	0.05	APIA 4500 CN <sup>-</sup> D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.97	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.45	mg/lit	Not Specified	APIA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/24/0558	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15165:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15165:2016

End

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#### Note:

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2306134	30/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/03/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	I CP – OES	GL/FQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 ° C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/03/2024
09.	Laminar Air Flow	GI /EQ/LAF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	26/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2306118	29/06/2023	28/03/2024



# GADARK LAB PVT. LTD.

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE					
Report No.	GW/24/0559	Report Date	23/03/2024		
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512				
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity%	
			24.2	52	
Sampling Plan	GLPL/QF/7.3/03	Sampling Procedure No.	APHA 1060		
Sampling Point	Admin 2 <sup>nd</sup> Floor				
Sampling Details	Admin 2 <sup>nd</sup> Floor Fountain Water Sample	Date of Collection	18/03/2024		
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024		
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024		
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.14	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	10.09	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	40	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	10.0	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.066	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/24/0559	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.4	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	4.01	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	0.012	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.95	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.56	mg/lit	Not Specified	API IA 3500 Na B
32	Potassium as K	0.11	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/24/0558	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

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### Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2306134	30/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAI / 2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP - OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 ° C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/06/2024
09.	Laminar Air Flow	GI /FQ/LAF/01	TECH/VAL/ 2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2306118	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0560	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	57
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Cafe Gox			
Sampling Details	Cafe Gox Water Fountain Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.35	-	6.5 - 8.5	API IA 4500 H*
2	Turbidity	0.2	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	6.08	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	42	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	11.0	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	20	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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### TEST REPORT

Report No.	GW/24/0560	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.2	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	4.01	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	2.44	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.58	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.11	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/24/0560	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2308134	30/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2308110	29/06/2023	28/06/2024
05.	UV Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 °C)	GL/EQ/I/03	AVI/2308127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I/01	AVI/2308126	30/06/2023	29/06/2024
09.	Laminar Air Flow	GL/EQ/LAF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2308111	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2308118	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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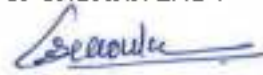
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0561	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403612			
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	52
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	International Departure L 2			
Sampling Details	International Departure L2 Fountain Water Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	18/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.78	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	5.08	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	22	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	7.0	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.50	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> F
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	10	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.058	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

For GADARK LAB PVT. LTD.

  
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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/21/0551	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	18/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadaschiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.46	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.48	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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### TEST REPORT

Report No.	GW/24/0561	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

For GADARK LAB PVT. LTD.

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#### Note:

1. Results relate only to the sample 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. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2306134	30/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
05.	UV Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 ° C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 ° C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/06/2024
09.	Laminar Air Flow	GL/EQ/LAF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2306118	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/D562	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Date 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	52
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Domestic Remote Arrival LO			
Sampling Details	Domestic Remote Arrival LO Water Fountain Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	7.28	-	6.5 - 8.5	APIA 4500 H*
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APIA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	8.08	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	41	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	11.0	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	0.75	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	18	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.058	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/24/0562	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachivadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	0.3	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530-B,C
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	4.81	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	1.48	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	1.56	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	0.12	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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### TEST REPORT

Report No.	GW/24/0562	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

For GADARK LAB PVT. LTD.

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#### Note:

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**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2306134	30/06/2023	29/06/2024
04.	Hot Air Oven	GI/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	16/09/2023	15/09/2024
06.	ICP - OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 ° C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44,5 ° C)	GI /FQ/I/01	AVI/2306126	30/06/2023	29/06/2024
09.	Laminar Air Flow	GL/EQ/LAF/01	TECH/VAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024
11.	Water Bath	GI /FQ/WB/01	AVI/2306118	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

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### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0583	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	52
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	Fisherman's Wharf L2			
Sampling Details	Fisherman's Wharf L2 Water Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	8.78	-	6.5 - 8.5	APHA 4500 H <sup>+</sup>
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	8.06	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	20	mg/lit	500.00	APHA 2540 C
8	Chlorides as Cl	5.0	mg/lit	250.00	APHA 4500 Cl <sup>-</sup> B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	APHA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	8	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	APHA 5520 B

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# GADARK LAB PVT. LTD.

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### TEST REPORT

Report No.	GW/24/0583	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on:	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F	< 0.01	mg/lit	1.0	APHA 4500 F-
17	Phenolic Compound	< 0.001	mg/lit	0.001	APIIA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN- D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5510 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APIHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4500 B - B
23	Calcium as Ca	1.60	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APIHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.97	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.15	mg/lit	Not Specified	APHA 3500 Na B
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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Page 2 of 3



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka Kudal, District - Sindhudurg - 416 525.

Tel. : (02262) 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 7059 / 2577 7170 / 2085 0091 • +91 93213 12367

## TEST REPORT

Report No.	GW/24/0563	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

For GADARK LAB PVT. LTD.

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[SACHIN B. GAONKAR]



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### Note:

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4. Customer complaint register is available at laboratory.
5. Calibration details of the equipment's used in monitoring and / or analysis is back side of analysis report.

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GL/EQ/BAL/03	AVI/2306134	30/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
05.	U V Spectrophotometer	GL/EQ/UV/01	TECH/CAL/2023/TS.98/1	18/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 °C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/06/2024
09.	Laminar Air Flow	GL/EQ/LAF/01	TECH/MAL/2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2306118	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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Tel. : (02062) 223519 • E-mail : info@gadark.in • Website : www.gadark.in

OFF.: 15, Hindustan Kutchco Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Te. : (022) 2577 7060 / 2577 7070 / 2085 0001 • +91 93213 12367

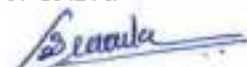
### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0564	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			24.2	52
Sampling Plan	GLPL/QF/7.3/06	Sampling Procedure No.	API IA 1060	
Sampling Point	Apron Aircraft Filling Area			
Sampling Details	Apron Aircraft Filling Area Water Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	4 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
1	pH	6.66	-	6.5 - 8.5	API IA 4500 H*
2	Turbidity	0.1	NTU	1.00	APHA 2130 B
3	Taste	Agreeable	-	Agreeable	APHA 2160 B
4	Colour	< 1.0	Colour Unit	5.0	APHA 2120 B
5	Odour	Agreeable	-	Agreeable	APHA 2150 B
6	Total Alkalinity	2.02	mg/lit	200.00	APHA 2320 B
7	Total Dissolved Solid	15	mg/lit	500.00	API IA 2540 C
8	Chlorides as Cl	0.80	mg/lit	250.00	APHA 4500 Cl-B
9	Sulphate as SO <sub>4</sub>	0.25	mg/lit	200.00	APHA 4500 SO <sub>4</sub> <sup>2-</sup> E
10	Sulphides	< 0.05	mg/lit	0.05	API IA 4500 S <sup>2-</sup> F
11	Total Hardness as CaCO <sub>3</sub>	6	mg/lit	200.00	APHA 2340 C
12	Ammonia	< 0.056	mg/lit	0.50	APHA 4500 NH <sub>3</sub>
13	Mineral Oil	< 0.1	mg/lit	0.50	API IA 5520 B

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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Page 1 of 3



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-51, Additional M.I.D.C. Kuda, Taluka - Kudal, District - Sindhudurg - 416 525.  
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Off.: 15, Hindustan Kholnool Industrial Complex, L.B.S. Marg, Vikhroli (West), Mumbai - 83.  
Tel.: (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12367

### TEST REPORT

Report No.	GW/24/0564	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited. Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Parnem, Mopa, North Goa - 403512		

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Requirement (Acceptable Limits as per IS 10500:2012)	Method
14	Residual Free Chlorine	Nil	mg/lit	0.20	APHA 4500 Cl B
15	Nitrate as NO <sub>3</sub>	< 0.01	mg/lit	45.00	APHA 4500 NO <sub>3</sub> B
16	Fluoride as F <sup>-</sup>	< 0.01	mg/lit	1.0	APHA 4500 F <sup>-</sup>
17	Phenolic Compound	< 0.001	mg/lit	0.001	APHA 5530 D
18	Cyanide	< 0.001	mg/lit	0.05	APHA 4500 CN D
19	Anionic Detergent	< 0.001	mg/lit	0.2	APHA 5540 - C

#### Metal Analysis:

20	Aluminium as Al	< 0.03	mg/lit	0.03	APHA 3120 B
21	Arsenic as As	< 0.01	mg/lit	0.01	APHA 3120 B
22	Boron as B	< 0.01	mg/lit	0.50	APHA 4600 B B
23	Calcium as Ca	0.80	mg/lit	75.00	APHA 3500 Ca B
24	Cadmium as Cd	< 0.002	mg/lit	0.003	APHA 3120 B
25	Iron as Fe	< 0.01	mg/lit	1.00	APHA 3120 B
26	Lead as Pb	< 0.01	mg/lit	0.01	APHA 3120 B
27	Magnesium as Mg	0.97	mg/lit	30.00	APHA 3500 Mg B
28	Chromium as Cr	< 0.01	mg/lit	0.05	APHA 3120 B
29	Mercury as Hg	< 0.001	mg/lit	0.001	IS 3025 (Part 2)
30	Zinc as Zn	< 0.02	mg/lit	5.00	APHA 3120 B
31	Sodium as Na	0.44	mg/lit	Not Specified	APHA 3500 Na D
32	Potassium as K	< 0.1	mg/lit	Not Specified	APHA 3500 K B
33	Copper as Cu	< 0.01	mg/lit	0.05	APHA 3120 B

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: I-54, Addition: M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.

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## TEST REPORT

Report No.	GW/24/0564	Report Date	23/03/2024
Order / Reference	As Per Dated 18/03/2024	Sample Received on	19/03/2024
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512		

### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34	Total Coliform at 37°C for 48 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016
35	E.Coli at 44.5°C for 24 hrs.	Absent	/100ml	Shall not be detectable in any 100 ml sample	IS 15185:2016

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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Page 3 of 3

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Turbidity Meter	GL/EQ/Turb/01	-	In house Calibration	
03.	Analytical Balance	GI /FQ/BAL/03	AVI/2306134	30/06/2023	29/06/2024
04.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
05.	UV Spectrophotometer	GL/EQ/UV/01	TECH/CAL/ 2023/TS.9B/1	16/09/2023	15/09/2024
06.	ICP – OES	GL/EQ/ICP/01	-	In house Calibration	
07.	Microbiological Incubator (35 °C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
08.	Microbiological Incubator (44.5 °C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/06/2024
09.	Laminar Air Flow	GL/EQ/LAF/01	TECH/VAL/ 2024/02/107	15/02/2024	14/02/2025
10.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024
11.	Water Bath	GL/EQ/WB/01	AVI/2306118	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

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Tel. : (022) 2577 7069 / 2577 7070 / 2085 0091 • +91 93213 12387

### TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/0566	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512.			
Order / Reference	As Per Dalod 18/03/2024	Environmental Condition of Lab	Temp °C 30.0	Humidity % 56
Sampling Plan	GI,PL/QF/7.3/08	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Inlet			
Sampling Details	STP Inlet Water Sample	Date of Collection	18/03/2024	
Sample Collected by	GLPL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

#### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Method
1	pH	7.34	-	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	637	mg/lit	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	225	mg/lit	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	308	mg/lit	APHA 2540 D
5	Oil & Grease (O & G)	19	mg/lit	API IA 5520 B
6	Ammonia	205.24	mg/lit	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	220.92	mg/lit	APHA 4500-Norg
8	Phosphorous	9.05	mg/lit	API IA 4500 P D

#### Microbiological Parameters:

Sr. No.	Parameters	Result	Unit	Method
9	Fecal Coliform at 44.5°C for 24 hrs.	> 1600	MPN Index/100ml	APHA 9221 E

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



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Recognised by Central Pollution Control Board (MoEF and CC, Govt. of India), under the EP Act, 1986.  
valid upto 21st August 2025. ISO 9001 : 2015 and ISO 45001 : 2018 Certified.

**Equipment Calibration Details**

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2306129	30/06/2023	29/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2306122	30/06/2023	29/06/2024
05.	Microbiological Incubator (35 ° C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
06.	Microbiological Incubator (44,5 ° C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/06/2024
07.	Laminar Air Flow	GL/EQ/LAF/01	TECH/VAL/ 2024/02/107	15/02/2024	14/02/2025
08.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024



# GADARK LAB PVT. LTD.

## INDUSTRIAL ANALYSTS & CONSULTANTS

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OFF.: 15, Hincuskar Kominar Industrial Complex, L.B.S. Marg, V khroll (West), Mumbai - 83.

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

## TEST REPORT

ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	GW/24/D587	Report Date	23/03/2024	
Client Name & Address	GMR Goa International Airport Limited, Administrative Block, Mopa International Airport, Dadachiwadi Road, Nagzar, Taluka Pernem, Mopa, North Goa - 403512			
Order / Reference	As Per Dated 18/03/2024	Environmental Condition of Lab	Temp °C	Humidity %
			30.0	56
Sampling Plan	GLPL/QF/1.3/06	Sampling Procedure No.	APHA 1060	
Sampling Point	STP Outlet (A.C.F.)			
Sampling Details	STP Outlet (A.C.F.) Water Sample	Date of Collection	18/03/2024	
Sample Collected by	GI PL Representative	Sample Received On	19/03/2024	
Analysis Started On	19/03/2024	Analysis Completed On	23/03/2024	
Sample Container	Plastic Carboy + Glass Bottle	Sample Quantity	5 lit + 1.25 lit	

### Chemical Testing:

Sr. No.	Parameters	Result	Unit	Limits	Method
1	pH	7.34	-	5.5 - 9.0	APHA 4500 H <sup>+</sup>
2	Chemical Oxygen Demand (COD)	44	mg/lit	50.00	APHA 5220 B
3	Biochemical Oxygen Demand (27°C day) (BOD)	8	mg/lit	10.00	IS 3025 (Part 44)
4	Total Suspended Solids (TSS)	17	mg/lit	20.00	API IA 2540 D
5	Oil & Grease (O & G)	1	mg/lit	10.00	APHA 5520 B
6	Ammonia	3.47	mg/lit	5.00	APHA 4500 NH <sub>3</sub> B&C
7	Total Nitrogen (as N)	8.62	mg/lit	10.00	APHA 4500-Norg
8	Phosphorous	1.0	mg/lit	--	APHA 4500 P D

### Microbiological Parameters:

9	Fecal Coliform at 44.5°C for 24 hrs.	84	MPN Index/100ml	100	APHA 9221 E
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End

For GADARK LAB PVT. LTD.

  
AUTHORISED SIGNATORY  
[SACHIN B. GAONKAR]



  
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				Calibration Date	Next Calibration Due Date
01.	pH Meter	GL/EQ/pH/01	-	In house Calibration	
02.	Hot Air Oven	GL/EQ/O/01	AVI/2306110	29/06/2023	28/06/2024
03.	COD Digester	GL/EQ/COD/01	AVI/2306129	30/06/2023	29/06/2024
04.	BOD Incubator	GL/EQ/I/02	AVI/2306122	30/06/2023	29/06/2024
05.	Microbiological Incubator (35 ° C)	GL/EQ/I/03	AVI/2306127	30/06/2023	29/06/2024
06.	Microbiological Incubator (44.5 ° C)	GL/EQ/I/01	AVI/2306126	30/06/2023	29/06/2024
07.	Laminar Air Flow	GL/EQ/LAF/01	TECH/VAL/ 2024/02/107	15/02/2024	14/02/2025
08.	Autoclave	GL/EQ/A/01	AVI/2306111	29/06/2023	28/06/2024

**ANNEXURE – 3**

**ENVIRONMENTAL EXPENDITURE  
DURING PERIOD OF OCTOBER 2023 TO MARCH 2024**

*Note: All cost expenditures are in INR Crore.*

<b>S. N.</b>	<b>Particulars</b>	<b>Total EXPENSES during Oct 2023 to Mar 2024 (in INR Crore)</b>
1.	AAQ & Noise Levels Monitoring (in Goa & Maharashtra States)	0.298
2.	Indoor Air Quality Monitoring	0.014
3.	Dust suppression on the haul roads through tankers	0.045
4.	O&M of labour colony STP (150 KLD)	0.200
5.	Occupational health surveillance of workmen	0.026
6.	Environment Management Cell (EMC) set up	0.065
7.	Hazardous Waste Management	0.002
8.	Solid Waste Management	0.989
9.	Construction Debris & Scrap Management	0.207
10.	Vacuum Tanker (Portable toilets at site)	0.294
11.	Environmental Compliance Monitoring by NEERI	0.201
12.	Aviation Noise Monitoring Terminal units (NMT)	0.008
13.	Operation & Maintenance Charges (STP & WTP)	0.301
14.	Landscaping & Horticulture	3.890
15.	Miscellaneous	0.178
	<b>TOTAL</b>	<b>6.718</b>



**ANNEXURE – 4**

**LIST OF STATUTORY PERMITS / APPROVALS RELATED TO ENVIRONMENT  
OBTAINED DURING OCTOBER 2023 TO MARCH 2024**

S.N.	Statutory Permits/Approval	Date		Statutory Authority	Permit enclosed as
		Issued	Validity		
1	Approval for Airport Noise Zone	29.02.2024	28.02.2028	Directorate of Civil Aviation	Appendix-1
2	Approval for SWM Facility under Aircraft Rules	13.03.2024	-	Directorate of Civil Aviation	Appendix-2





## Appendix-I - Approval for Airport Noise Zone

GOVERNMENT OF INDIA  
OFFICE OF THE  
DIRECTOR GENERAL OF CIVIL  
AVIATION  
OPP. SAFDARJUNG AIRPORT,  
NEW DELHI - 110 003



भारत सरकार  
महानिदेशक नागर विमानन  
का कार्यालय  
सफदरजंग एरपोर्ट के सामने  
नई दिल्ली - ११० ००३

Aircraft Engineering Directorate  
Telephone/ दूरभाष: +91-11- 24611504  
E-mail/ ई-मेल: rthakur.dgca@nic.in

Reference No./ संख्या: DGCA-27041/1/2023-AED  
Dated/ दिनांक: 29 February, 2024

विमान अभियांत्रिकी निदेशालय

To,

GMR Goa International Airport Limited (GGIAL),  
Administrative Block, Manohar International Airport  
Taluka Pernern, Mopa,  
North Goa 403512

**(Kind Attention: Mr. R. V. Sheshan, Chief Executive Officer)**

**Subject: Approval of Airport Noise Zone for Manohar International Airport, Goa**

Sir,

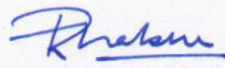
Reference is made Environment (Protection) Amendment Rules, 2018 issued vide G.S.R 568(E) dated 18/06/2018, regarding Ambient Air Quality Standards with respect to Noise in Airport Noise Zone.

In this regard, GMR Goa International Airport Limited (GGIAL) has carried out the study and developed the Airport Noise Zone GGIAL/ANZ/2023-24/01, V2.1 dated 26<sup>th</sup> February 2024 for Manohar International Airport, Goa. The submitted document has been examined in accordance with G.S.R 568(E) issued by Ministry Of Environment, Forest and Climate Change (MoEF) dated 18/06/2018 and found satisfactory.

This approval shall remain valid for a period of five years from the date of issue unless suspended/revoked/cancelled. The airport operator shall display the approved noise zone on their official website.

DGCA shall review the noise contour of Manohar International Airport, Goa and based on the satisfactory evaluation the approval will be renewed further.

Yours faithfully

  
(Rohit Thakur)  
Deputy Director (AE)  
Director General of Civil Aviation

Copy to:-

- 1) The Chairman, Airports Authority of India, Block -C, Rajiv Gandhi Bhawan, opposite Safdarjung Airport, New Delhi - 110003
- 2) Dy. Director General ,Directorate of Aerodrome Standards, DGCA HQs, opposite Safdarjung Airport , New Delhi- 110003

**GOVERNMENT OF INDIA**

OFFICE OF THE  
DIRECTOR GENERAL OF CIVIL AVIATION  
OPP. SAFDARJUNG AIRPORT,  
NEW DELHI - 110003



भारत सरकार  
नागर विमानन महानिदेशालय  
सफदरजंग एयरपोर्ट के सामने  
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Ref No: AV 20024/17/2000-AL  
Dated: 13.03.2024

To

The Chief Executive Officer,  
GMR Goa International Airport Ltd.,  
Manohar International Airport,  
Mopa, North Goa 403512

**Sub: Installation of 'Solid Waste Management Facility' at Manohar International Airport (MIA), Goa**

Sir,

Reference is invited to your letter no. GGIAL/DGCA/2023-2024/1908 dated 09.01.2024 on the subject matter.

The documents have been examined and the permission under the provision of Rule 91 of Aircraft Rules, 1937 is hereby granted for installation of Solid Waste Management Facility at Manohar International Airport, Goa with the followings conditions:

1. Maintain adequate infrastructure like netting, curtains, fenced walls, gate with entry restrictions to prevent the attraction of vultures or other birds and animals.
2. Strictly implement the mitigations/ control as proposed in SCARS.
3. Strictly adhere the all conditions specified in issued NOC by concerned authority in this regard.
4. Ensure the storage of wastes inside the facility at all time.
5. Maintain the facility with proper housekeeping and disinfections.
6. Inspect the established facility regularly and records of inspection be maintained in details.

(M. T. Bokade)

Joint Director General

Copy to:

O/o DDG(WR), DGCA, Mumbai