



GOA
State Pollution Control Board

Online Consent Management & Monitoring System

Ministry of Environment, Forest and Climate Change
Government of India



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Welcome GMR Goa International Airport Limited

Date : 28-8-2024

Application No : 2390572

You have successfully submitted Environmental Statement for this duration 2023-2024.
View Environment Statement

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Welcome GMR Goa International Airport Limited

Date : 28-8-2024

Environmental Statement Details

| Environmental Statement id | Industry Name | Environment Statement Financial Period | Industry District | Year of establishment | Date of Submission | Query | Query Reply | Verified | Raw Material consumption Attachment |
|----------------------------|---------------------------------------|--|-------------------|--|-------------------------|-------|-------------|-----------------|-------------------------------------|
| <u>1904981</u> | GMR Goa International Airport Limited | 2022-2023 | NORTH GOA | Manohar International Airport, Goa started scheduled commercial operations from 5th January 2023 | 2023-09-14 10:41:25.944 | | | Not Mention Yet | <u>View Document</u> |

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GOA STATE POLLUTION CONTROL BOARD

FORM V

(See Rule 14)

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year.

PART A

- (i) Name and address of the owner/ occupier of the industry operation or process : Sheshan R. V.
- (ii) Industry category Primary-(STC Code) : RED, Airports and Commercial Air Strips
Secondary-(STC Code)
- (iii) Production capacity : Not Applicable Numbers/Year

| Production Name | Production Capacity | Production Unit |
|--|---------------------|--|
| (iv) Year of establishment | : | Manohar International Airport, Goa started scheduled commercial operations from 5th January 2023 |
| (v) Date of the last environment statement submitted | : | 14/09/2023 |

PART B

1. Water consumption m³/ d

Process :

Cooling :

Domestic :

| Name of products | Process water consumption per unit of product output | |
|-----------------------------------|---|---|
| | During the previous financial year | During the current financial year |
| Airport Operation and Maintenance | 1,605 KLD (Including domestic, cooling, flushing & irrigation during the period from 5th January 2023 to 31st March 2023) | 1,254 KLD (Including domestic, cooling, flushing & irrigation during the period from 1st April 2024 to 31st March 2024) |

2. Raw material consumption

| Name of raw materials | Name of products | Consumption of raw material per unit | |
|-----------------------|------------------|--------------------------------------|-----------------------------------|
| | | During the previous financial year | During the current financial year |
| Nil | Nil | Nil | Nil |

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART C

Pollution discharged to environment/ unit of output.

| Pollution | Quantity of pollutants discharged(mass/day) | Concentration of pollutants in discharges(mass/volume) | Percentage of variation from prescribed standards with reasons |
|------------------|---|--|---|
| Water | | | |
| Water | Nil | Airport adopted Zero Liquid Discharge Policy. Entire sewage/effluent is treated in 625 KLD sewage treatment plant established within the airport premises. | 0% variation from the prescribed standards. Sewage/effluent quality is monitored through MoEF&CC approved environmental laboratory. Environmental quality monitoring reports are attached as Annexure-I |
| Air | | | |
| Air | Details are provided in the Annexure-II (attached). All three Diesel Generator sets (stack height of 30 m) are used as a standby for emergency purpose. | Details are provided in the Annexure-II (attached). The concentration of the pollutants are well within the GSPCB permissible norms. | 0% variation from the prescribed standards. DG sets stack emission parameters are monitored through MoEF&CC approved environmental laboratory. Reports are attached as Annexure- I. |

Name of Pollutants : Not Applicable.

PART D Hazardous Wastes

(as specified under Hazardous Wastes (Management and Handling) Rules, 1989)

| Hazardous Wastes | Total Quantity (Kg) | |
|---------------------------------------|---|---|
| | During the previous financial year | During the current financial year |
| (a) From process | Nil | 2000 kg (Including Cat. 5.1, 33.1 and 33.2) |
| (b) From pollution control facilities | NA | NA |

PART E Solid Wastes

| | Total Quantity | |
|--|---|--|
| | During the previous financial year | During the current financial year |

| | | |
|---|---|--|
| (a) From process | 22,510 Kg during the period from 5th January 2023 to 31st March 2023 (Food Waste, Plastic, Metal, Glass, Paper, etc. from airport operations) | 1,18,275 Kg during the period from 1st April 2023 to 31st March 2024. (Food Waste, Plastic, Metal, Glass, Paper, etc. from airport operations) |
| (b) From pollution control facility | NA | NA |
| (c)(1) Quantity recycled or re-utilised within the unit | 14,610 Kg (Food waste converted as compost) | 79,441 kg (Food waste converted as compost) |
| (2) Sold | 7470 kg (plastic, paper, metal and glass scrap sold to authorized recyclers) | 34,270 kg (plastic, paper, metal and glass scrap sold to authorized recyclers) |
| (3) Disposed | 430 kg (Refused Derived Fuel disposed to Goa Waste Management Corporation) | 4,564 kg (Refused Derived Fuel disposed to Goa Waste Management Corporation) |

PART F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes Total 2000 kg of hazardous waste was generated (including cat. 5.1, 33.1 & 33.2) during FY 2023-24.

Arrangement has been made for the storage and disposal of category-wise hazardous wastes (category 5.1, 33.1 & 33.2) through manifest system.

Membership has been taken with M/s. Goa Industries Environment Management Association for disposal of hazardous waste. Consequently, Agreement has been made with M/s. Ponda Envocare Limited for disposal of hazardous waste in Common Hazardous Waste Treatment & Disposal Facility in Goa State.

Solid Waste generated during FY2023-24 is as below:

Total Bio-degradable/Food Waste (79,441 Kg) processed through Organic Waste Composter and used as manure within airport premises.

Total Non-Biodegradable Recyclable Waste (34,270 Kg) sent to the authorized recyclers for recycling.

Total Non-Biodegradable non-recyclable waste (4,564.20 Kg) was bailed as Refused Derived Fuel (RDF) in the bailing machine & sent to Goa Waste Management Corporation (GWMC).

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PART G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production 100% of treated sewage/effluent has been recycled & reused for toilet flushing, cooling tower makeup & irrigation within the airport premises.

This has resulted in significant reduction in the fresh raw water consumption and corresponding cost savings during FY2023-24.

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PART H

Additional measures/ investment proposal for environmental protection abatement of pollution, prevention of pollution Integrated Solid Waste Management Facility, equipped with Organic Waste Converter, Bailing Machine, Manual Segregation System & Electric Vehicles for waste collection. The entire solid waste management is being managed through a professional third party waste management agency.

Night Soil Pit is provided on the airside for collecting sewage from Aircrafts, which is further pumped to 625 KLD STP for treatment and recycling. Airside Waste Transfer Station has been established on the airside to collect solid waste from aircrafts.

State of the art Sewage Treatment Plant on the landside, Oil Water Separator on the airside, Storm water drainage system across the airport complex with in-line rainwater harvesting pits, acoustic enclosure to the DG sets, concrete/asphalted road network across the airport complex, avenue plantation, landscaping, etc. has been provided.

Passenger Terminal Building has been designed and constructed as per Green Building concepts, which is certified with IGBC Platinum Standard.

PART I

Any other particulars for improving the quality of the environment GGIAL along with the stakeholders have adopted following measures to improve the quality of environment.

- 5 MWp Solar Power Plant is installed & operational within the Airport Premises.
- Use of Bridge Mounted Equipment (Pre-Conditioned Air and Ground Power Unit)
- Single Engine Taxing In & Out,
- 100% use of LED lighting system across the Airport complex
- GHG Scope-1 and Scope-2 emissions tracking
- 2 nos. of dedicated heavy duty Road Sweeping Machines
- Prohibition of Single Use Plastic (SUP)
- Landscape development & Tree Plantation
- Ground Water Recharging through in-line rainwater harvesting pits
- Environmental Promotional Campaigns, Trainings & Awareness
- Electrical Vehicle/Bus for public/passenger transport by Kadamba Transport Corporation Limited (KTCL), GoG
- 1 number Continuous Ambient Air Quality Monitoring Station (CAAQMS) within the airport premises & 2 nos. of online real-time Noise Monitoring Terminals in the airport funnel zone are installed to monitor online ambient air quality parameters & online noise levels respectively.
- Noise Levels & hazardous waste generation quantities are displayed on Online Display System at the airport entry.

Ambient Air Quality Monitoring is being carried out inside & outside the Airport (6 locations in Goa State & 3 locations in Maharashtra State)

Ambient Noise Level Monitoring is being carried out inside and outside the Airport (9 locations in Goa State & 3 locations in Maharashtra State)

Besides above, DG sets stack emissions monitoring, ground water, drinking water and storm water quality are being monitored through MoEF&CC & NABL approved environmental laboratory.

Remarks : GGIAL's Passenger Terminal Building (PTB) is awarded with Platinum Standard Certification for New Building by Indian Green Building Council (IGBC), for embracing various resources conservation and efficiency practices (energy, water, waste water, passive architecture, natural light, ventilation, waste minimization, etc.)

GGIAL is awarded with Construction Industry Development Council's under Planning Commission (NITI Aayog), GoI - 14th Vishwakarma Awards 2023 under the categories of "Best Construction Project" and "Construction HSE Award".

GGIAL is awarded with 21st Annual Greentech Safety Award 2023 by Greentech Foundation, New Delhi under the category of "Construction Safety".

GGIAL received Plaque of Excellence in recognition of being adjudged 2nd Place in the "Best Environmental Practices" Competition organised by Goa State Pollution Control Board (GSPCB) on the occasion of World Environment Day, 5th June 2023.

GGIAL received International Airport Review's The Sustainable Airport Award 2023 (Highly Commendable) under "Strategy, Culture & Ethos" Category during International Airport Summit- 2023 at London, UK.

GGIAL is recognised with Health & Safety Excellence Award (Both Construction & Operation Phase) by

M/s. NIIFL (equity partner/investor) during NIIF Annual Environment & Social Summit- 2024 at Faridabad.
GGIAL is recognised with Indian Green Building Council (IGBC) Green Building Certification by GSPCB
in 2nd International Environment Sustainability Summit Goa (IESSG)- 2024.

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Annexure - I

**Environmental Quality
Monitoring Reports**



GADARK LAB PVT. LTD.

INDUSTRIAL ANALYSTS & CONSULTANTS

LAB.: H-54, Additional M.I.D.C. Kudal, Taluka - Kudal, District - Sindhudurg - 416 525.

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

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

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

TEST REPORT

| 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 ⁺ |
| 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 ₃ B&C |
| 7 | Total Nitrogen (as N) | 102.48 | mg/lit | APHA 4500-Norg |

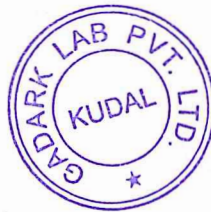
Microbiological Parameters:

| 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.


AUTHORISED SIGNATORY
[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.

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 0091 • +91 93213 12367

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 ₃ B&C |
| 7 | Total Nitrogen (as N) | 8.96 | mg/lit | 10.00 | APHA 4500-Norg |

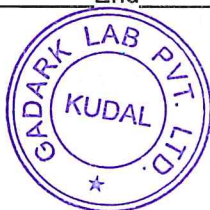
Microbiological Parameters:

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

End

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]




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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.

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 0091 • +91 93213 12367

TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|-------------|------------------|
| Report No. | GW/24/0330 | | 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 |
| 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 | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 6.90 | - | APHA 4500 H ⁺ |
| 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 ₃ 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

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]




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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. | 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/ 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/7.3/06 | 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 | 7.06 | - | 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 ₃ 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

End

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]




CHECKED BY

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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/ 2024/02/107 | 15/02/2024 | 14/02/2025 |
| 08. | Autoclave | GL/EQ/A/01 | AVI/2207004 | 29/06/2023 | 28/06/2024 |



GADARK LAB PVT. LTD.

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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

| 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 Dated 18/03/2024 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 30.0 | 56 |
| 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 | 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 ⁺ |
| 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 | APHA 5520 B |
| 6 | Ammonia | 205.24 | mg/lit | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 220.92 | mg/lit | APHA 4500-Norg |
| 8 | Phosphorous | 9.05 | mg/lit | APHA 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 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | | |
|----------------------------------|--|--------------------------------|-----------------------|------------------|--|
| Report No. | GW/24/0567 | | 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/7.3/06 | 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 | 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 | Limits | Method |
|---------|--|--------|--------|-----------|-------------------------------|
| 1 | pH | 7.34 | - | 5.5 - 9.0 | APHA 4500 H ⁺ |
| 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 | APHA 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 ₃ 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

End

For GADARK LAB PVT. LTD.


AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]




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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 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/23/0591 | | Report Date | 19/04/2023 |
| 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 13/04/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 30.0 | 46 |
| 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 | 13/04/2023 | |
| Sample Collected by | GLPL Representative | Sample Received On | 13/04/2023 | |
| Analysis Started On | 13/04/2023 | Analysis Completed On | 19/04/2023 | |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | 5 lit + 1.25 lit | |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | Ph | 7.08 | - | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 805 | mg/lit | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 286 | mg/lit | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 86 | mg/lit | APHA 2540 D |
| 5 | Oil & Grease (O & G) | 8 | mg/lit | APHA 5520 B |
| 6 | Ammonia | 86.69 | mg/lit | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 98.89 | 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.


AUTHORISED SIGNATORY
[SANTOSH V. ZULPE]


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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 | 01/07/2022 | 30/06/2023 |
| 03. | COD Digester | GL/EQ/COD/01 | AVI/2207010 | 01/07/2022 | 30/06/2023 |
| 04. | BOD Incubator | GL/EQ/I/02 | AVI/2207014 | 01/07/2022 | 30/06/2023 |
| 05. | Microbiological Incubator (37 ° C) | GL/EQ/I-01 | AVI/2207006 | 01/07/2022 | 30/06/2023 |
| 06. | Microbiological Incubator (44.5 ° C) | GL/EQ/I-03 | AVI/2207016 | 01/07/2022 | 30/06/2023 |
| 07. | Laminar Air Flow | GL/LF/01 | TECH/VAL/20 23/02/89 | 13/04/2023 | 15/02/2024 |
| 08. | Autoclave | GL/EQ/A/01 | AVI/2207004 | 01/07/2022 | 30/06/2023 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/23/0592 | | Report Date | 19/04/2023 |
| 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 13/04/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 30.0 | 46 |
| 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 | 13/04/2023 | |
| Sample Collected by | GLPL Representative | Sample Received On | 13/04/2023 | |
| Analysis Started On | 13/04/2023 | Analysis Completed On | 19/04/2023 | |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | 5 lit + 1.25 lit | |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Limits | Method |
|---------|--|--------|--------|-----------|-------------------------------|
| 1 | pH | 8.13 | - | 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) | 8 | mg/lit | 10.00 | IS 3025 (Part 44): 1993 |
| 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 | 2.69 | mg/lit | 5.00 | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 6.83 | mg/lit | 10.00 | APHA 4500-Norg |

Microbiological Parameters:

| | | | | | |
|---|--------------------------------------|----|-----------------|-----|-------------|
| 8 | Fecal Coliform at 44.5°C for 24 hrs. | 47 | MPN Index/100ml | 100 | APHA 9221 E |
|---|--------------------------------------|----|-----------------|-----|-------------|

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[SANTOSH V. ZULPE]

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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 | 01/07/2022 | 30/06/2023 |
| 03. | COD Digester | GL/EQ/COD/01 | AVI/2207010 | 01/07/2022 | 30/06/2023 |
| 04. | BOD Incubator | GL/EQ/I/02 | AVI/2207014 | 01/07/2022 | 30/06/2023 |
| 05. | Microbiological Incubator (37 ° C) | GL/EQ/I-01 | AVI/2207006 | 01/07/2022 | 30/06/2023 |
| 06. | Microbiological Incubator (44.5 ° C) | GL/EQ/I-03 | AVI/2207016 | 01/07/2022 | 30/06/2023 |
| 07. | Laminar Air Flow | GL/LF/01 | TECH/VAL/20 23/02/89 | 13/04/2023 | 15/02/2024 |
| 08. | Autoclave | GL/EQ/A/01 | AVI/2207004 | 01/07/2022 | 30/06/2023 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/23/0767 | | Report Date | 16/05/2023 |
| 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 10/05/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 31.2 | 53 |
| 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 | 10/05/2023 | |
| Sample Collected by | GLPL Representative | Sample Received On | 10/05/2023 | |
| Analysis Started On | 10/05/2023 | Analysis Completed On | 16/05/2023 | |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | 5 lit + 1.25 lit | |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 6.73 | - | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 1053 | mg/lit | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 370 | mg/lit | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 98 | mg/lit | APHA 2540 D |
| 5 | Oil & Grease (O & G) | 10 | mg/lit | APHA 5520 B |
| 6 | Ammonia | 89.23 | mg/lit | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 104.72 | 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.


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 | 01/07/2022 | 30/06/2023 |
| 03. | COD Digester | GL/EQ/COD/01 | AVI/2207010 | 01/07/2022 | 30/06/2023 |
| 04. | BOD Incubator | GL/EQ/I/02 | AVI/2207014 | 01/07/2022 | 30/06/2023 |
| 05. | Microbiological Incubator (37 ° C) | GL/EQ/I-01 | AVI/2207006 | 01/07/2022 | 30/06/2023 |
| 06. | Microbiological Incubator (44.5 ° C) | GL/EQ/I-03 | AVI/2207016 | 01/07/2022 | 30/06/2023 |
| 07. | Laminar Air Flow | GL/LF/01 | TECH/VAL/20 23/02/89 | 10/05/2023 | 15/02/2024 |
| 08. | Autoclave | GL/EQ/A/01 | AVI/2207004 | 01/07/2022 | 30/06/2023 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|-----------------------|------------------|
| Report No. | GW/23/0768 | | Report Date | 16/05/2023 |
| 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 10/05/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 31.2 | 53 |
| 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 | 10/05/2023 |
| Sample Collected by | GLPL Representative | | Sample Received On | 10/05/2023 |
| Analysis Started On | 10/05/2023 | | Analysis Completed On | 16/05/2023 |
| 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) | 33 | mg/lit | 50.00 | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 6 | mg/lit | 10.00 | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 10 | 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 ₃ B&C |
| 7 | Total Nitrogen (as N) | 7.28 | mg/lit | 10.00 | APHA 4500-Norg |

Microbiological Parameters:

| | | | | | |
|---|--------------------------------------|----|-----------------|-----|-------------|
| 8 | Fecal Coliform at 44.5°C for 24 hrs. | 58 | MPN Index/100ml | 100 | APHA 9221 E |
|---|--------------------------------------|----|-----------------|-----|-------------|

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 | 01/07/2022 | 30/06/2023 |
| 03. | COD Digester | GL/EQ/COD/01 | AVI/2207010 | 01/07/2022 | 30/06/2023 |
| 04. | BOD Incubator | GL/EQ/I/02 | AVI/2207014 | 01/07/2022 | 30/06/2023 |
| 05. | Microbiological Incubator (37 ⁰ C) | GL/EQ/I-01 | AVI/2207006 | 01/07/2022 | 30/06/2023 |
| 06. | Microbiological Incubator (44.5 ⁰ C) | GL/EQ/I-03 | AVI/2207016 | 01/07/2022 | 30/06/2023 |
| 07. | Laminar Air Flow | GL/LF/01 | TECH/VAL/20 23/02/89 | 10/05/2023 | 15/02/2024 |
| 08. | Autoclave | GL/EQ/A/01 | AVI/2207004 | 01/07/2022 | 30/06/2023 |



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/23/1009 | | Report Date | 26/06/2023 |
| 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 20/06/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 31.7 | 70 |
| 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 | | 20/06/2023 |
| Sample Collected by | GLPL Representative | Sample Received On | | 20/06/2023 |
| Analysis Started On | 20/06/2023 | Analysis Completed On | | 26/06/2023 |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | | 5 lit + 1.25 lit |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 6.89 | - | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 1022 | mg/lit | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 350 | mg/lit | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 89 | mg/lit | APHA 2540 D |
| 5 | Oil & Grease (O & G) | 8 | mg/lit | APHA 5520 B |
| 6 | Ammonia | 78.21 | mg/lit | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 95.95 | 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.


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 | 01/07/2022 | 30/06/2023 |
| 03. | COD Digester | GL/EQ/COD/01 | AVI/2207010 | 01/07/2022 | 30/06/2023 |
| 04. | BOD Incubator | GL/EQ/I/02 | AVI/2207014 | 01/07/2022 | 30/06/2023 |
| 05. | Microbiological Incubator (37 ° C) | GL/EQ/I-01 | AVI/2207006 | 01/07/2022 | 30/06/2023 |
| 06. | Microbiological Incubator (44.5 ° C) | GL/EQ/I-03 | AVI/2207016 | 01/07/2022 | 30/06/2023 |
| 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 | 01/07/2022 | 30/06/2023 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|-------------|------------------|
| Report No. | GW/KI/23/0050 | | Report Date | 26/06/2023 |
| 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 20/06/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 31.7 | 70 |
| 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 | | 20/06/2023 |
| Sample Collected by | GLPL Representative | Sample Received On | | 20/06/2023 |
| Analysis Started On | 20/06/2023 | Analysis Completed On | | 26/06/2023 |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | | 5 lit + 1.25 lit |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Limits | Method |
|---------|--|--------|--------|-----------|-------------------------------|
| 1 | pH | 7.08 | - | 5.5 - 9.0 | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 43 | mg/lit | 50.00 | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 9 | mg/lit | 10.00 | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 17 | mg/lit | 20.00 | APHA 2540 D |
| 5 | Oil & Grease (O & G) | < 0.1 | mg/lit | 10.00 | APHA 5520 B |
| 6 | Ammonia | 4.36 | mg/lit | 5.00 | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 8.85 | 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

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 | 01/07/2022 | 30/06/2023 |
| 03. | COD Digester | GL/EQ/COD/01 | AVI/2207010 | 01/07/2022 | 30/06/2023 |
| 04. | BOD Incubator | GL/EQ/I/02 | AVI/2207014 | 01/07/2022 | 30/06/2023 |
| 05. | Microbiological Incubator (37 ° C) | GL/EQ/I-01 | AVI/2207006 | 01/07/2022 | 30/06/2023 |
| 06. | Microbiological Incubator (44.5 ° C) | GL/EQ/I-03 | AVI/2207016 | 01/07/2022 | 30/06/2023 |
| 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 | 01/07/2022 | 30/06/2023 |



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TEST REPORT

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/23/1184 | Report Date | 20/07/2023 | |
| 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 15/07/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 28.2 | 97 |
| 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 | 15/07/2023 | |
| Sample Collected by | GLPL Representative | Sample Received On | 15/07/2023 | |
| Analysis Started On | 15/07/2023 | Analysis Completed On | 20/07/2023 | |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | 5 lit + 1.25 lit | |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 7.08 | - | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 1007 | mg/lit | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 333 | mg/lit | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 68 | mg/lit | APHA 2540 D |
| 5 | Oil & Grease (O & G) | 5 | mg/lit | APHA 5520 B |
| 6 | Ammonia | 60.85 | mg/lit | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 82.69 | 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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[SANTOSH V. ZULPE]



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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

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/23/1189 | | Report Date | 20/07/2023 |
| 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 15/07/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 28.2 | 97 |
| 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 | 15/07/2023 | |
| Sample Collected by | GLPL Representative | Sample Received On | 15/07/2023 | |
| Analysis Started On | 15/07/2023 | Analysis Completed On | 20/07/2023 | |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | 5 lit + 1.25 lit | |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Limits | Method |
|---------|--|--------|--------|-----------|-------------------------------|
| 1 | pH | 7.71 | - | 5.5 - 9.0 | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 36 | mg/lit | 50.00 | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 8 | mg/lit | 10.00 | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 15 | mg/lit | 20.00 | APHA 2540 D |
| 5 | Oil & Grease (O & G) | < 0.1 | mg/lit | 10.00 | APHA 5520 B |
| 6 | Ammonia | 4.03 | mg/lit | 5.00 | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 7.95 | 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

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

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|-----------------------|------------------|
| Report No. | GW/K/23/0070 | | Report Date | 22/08/2023 |
| 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 17/08/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 29.2 | 88 |
| 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 | 17/08/2023 |
| Sample Collected by | GLPL Representative | | Sample Received On | 18/08/2023 |
| Analysis Started On | 18/08/2023 | | Analysis Completed On | 22/08/2023 |
| Sample Container | Plastic Carboy + Glass Bottle | | Sample Quantity | 5 lit + 1.25 lit |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 6.88 | - | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 995 | mg/lit | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 317 | mg/lit | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 72 | mg/lit | APHA 2540 D |
| 5 | Oil & Grease (O & G) | 6 | mg/lit | APHA 5520 B |
| 6 | Ammonia | 51.24 | mg/lit | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 62.16 | 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 | 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

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/K/23/0071 | | Report Date | 22/08/2023 |
| 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 17/08/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 29.2 | 88 |
| 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 | 17/08/2023 | |
| Sample Collected by | GLPL Representative | Sample Received On | 18/08/2023 | |
| Analysis Started On | 18/08/2023 | Analysis Completed On | 22/08/2023 | |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | 5 lit + 1.25 lit | |

Chemical Testing:


| Sr. No. | Parameters | Result | Unit | Limits | Method |
|---------|--|--------|--------|-----------|-------------------------------|
| 1 | pH | 7.54 | - | 5.5 - 9.0 | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 32 | mg/lit | 50.00 | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 7 | mg/lit | 10.00 | IS 3025 (Part 44): 1993 |
| 4 | Total Suspended Solids (TSS) | 13 | mg/lit | 20.00 | APHA 2540 D |
| 5 | Oil & Grease (O & G) | < 0.1 | mg/lit | 10.00 | APHA 5520 B |
| 6 | Ammonia | 3.92 | mg/lit | 5.00 | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 6.44 | 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

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 |



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/23/1634 | | Report Date | 21/09/2023 |
| 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 15/09/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 30.1 | 76 |
| 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 | | 15/09/2023 |
| Sample Collected by | GLPL Representative | Sample Received On | | 16/09/2023 |
| Analysis Started On | 16/09/2023 | Analysis Completed On | | 21/09/2023 |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | | 5 lit + 1.25 lit |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 6.48 | - | APHA 4500 H ⁺ |
| 2 | Chemical Oxygen Demand (COD) | 1832 | mg/lit | APHA 5220 B |
| 3 | Biochemical Oxygen Demand (27°C day) (BOD) | 667 | mg/lit | IS 3025 (Part 44) |
| 4 | Total Suspended Solids (TSS) | 98 | mg/lit | APHA 2540 D |
| 5 | Oil & Grease (O & G) | 7 | mg/lit | APHA 5520 B |
| 6 | Ammonia | 93.52 | mg/lit | APHA 4500 NH ₃ 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.

AUTHORISED SIGNATORY
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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

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|-------------|------------------|
| Report No. | GW/K/23/0074 | | Report Date | 21/09/2023 |
| 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 15/09/2023 | Environmental Condition of Lab | Temp °C | Humidity % |
| | | | 30.1 | 76 |
| 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 | | 15/09/2023 |
| Sample Collected by | GLPL Representative | Sample Received On | | 16/09/2023 |
| Analysis Started On | 16/09/2023 | Analysis Completed On | | 21/09/2023 |
| Sample Container | Plastic Carboy + Glass Bottle | Sample Quantity | | 5 lit + 1.25 lit |

Chemical Testing:

| Sr. No. | Parameters | Result | Unit | Limits | Method |
|---------|--|--------|--------|-----------|-------------------------------|
| 1 | pH | 7.36 | - | 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) | 8 | mg/lit | 10.00 | IS 3025 (Part 44) |
| 4 | Total Suspended Solids (TSS) | 15 | mg/lit | 20.00 | APHA 2540 D |
| 5 | Oil & Grease (O & G) | < 0.1 | mg/lit | 10.00 | APHA 5520 B |
| 6 | Ammonia | 2.24 | mg/lit | 5.00 | APHA 4500 NH ₃ B&C |
| 7 | Total Nitrogen (as N) | 5.49 | 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

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

| 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 ⁺ |
| 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 ₃ 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

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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

| 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 ⁺ |
| 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 ₃ 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

End

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AUTHORISED SIGNATORY
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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

| ANALYSIS REPORT FOR WATER SAMPLE | | | | |
|----------------------------------|--|--------------------------------|------------------|------------|
| Report No. | GW/23/1909 | | 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 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 ⁺ |
| 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 ₃ 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 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 | 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

| 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 ⁺ |
| 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 ₃ 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

End

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
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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 |



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/23/2203 | | 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/QF/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 | 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 | Method |
|---------|--|--------|--------|-------------------------------|
| 1 | pH | 6.78 | - | APHA 4500 H ⁺ |
| 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 ₃ 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

For GADARK LAB PVT. LTD.

AUTHORISED SIGNATORY
[SACHIN B. GAONKAR]



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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.

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/23/2209 | | 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/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 ₃ 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 |
|---|--------------------------------------|----|-----------------|-----|-------------|

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 | 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

| 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 [Nm³/hr] | 4966 |


ANALYSIS REPORT :

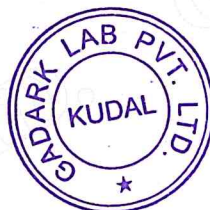
| Parameters | Unit | Results | GSPCB Limits** | Sampling & Analysis Methods |
|-----------------|---------|---------|----------------|-----------------------------|
| TPM / SPM | mg/Nm³ | 39.7 | 75 mg/Nm³ | IS 11255 (Part I) 1985 |
| Sulphur Dioxide | Kg/Hr | 0.54 | 51.12 Kg/Hr | IS 11255 (Part II) 1985 |
| NOx | ppm v/v | 33.9 | 710 ppm v/v | IS 11255 (Part VII) 2005 |
| CO | mg/Nm³ | 15.5 | 150 mg/Nm³ | APHA Edition II-134 |
| NMHC | mg/Nm³ | 13.2 | 100 mg/Nm³ | IS 5182 Part 21/2001 |

**Consent No. 12/2023-PCB/1617143/R00011760

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

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] | 481 |
| Average flue gas velocity [m/s] | 22.7 |
| Average volume of flue gas discharged [Nm³/hr] | 5296 |

ANALYSIS REPORT :

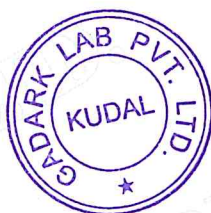
| Parameters | Unit | Results | GSPCB Limits** | Sampling & Analysis Methods |
|-----------------|---------|---------|----------------|-----------------------------|
| TPM / SPM | mg/Nm³ | 44.1 | 75 mg/Nm³ | IS 11255 (Part I) 1985 |
| Sulphur Dioxide | Kg/Hr | 0.53 | 51.12 Kg/Hr | IS 11255 (Part II) 1985 |
| NOx | ppm v/v | 54.9 | 710 ppm v/v | IS 11255 (Part VII) 2005 |
| CO | mg/Nm³ | 12.5 | 150 mg/Nm³ | APHA Edition II-134 |
| NMHC | mg/Nm³ | 12.5 | 100 mg/Nm³ | IS 5182 Part 21/2001 |

**Consent No. 12/2023-PCB/1617143/R00011760

End

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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.

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 [Nm³/hr] | 5141 |

ANALYSIS REPORT :

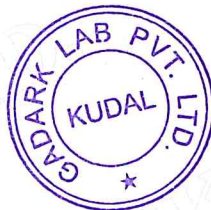
| Parameters | Unit | Results | GSPCB Limits** | Sampling & Analysis Methods |
|-----------------|---------|---------|----------------|-----------------------------|
| TPM / SPM | mg/Nm³ | 48.1 | 75 mg/Nm³ | IS 11255 (Part I) 1985 |
| Sulphur Dioxide | Kg/Hr | 0.60 | 51.12 Kg/Hr | IS 11255 (Part II) 1985 |
| NOx | ppm v/v | 65.3 | 710 ppm v/v | IS 11255 (Part VII) 2005 |
| CO | mg/Nm³ | 12.0 | 150 mg/Nm³ | APHA Edition II-134 |
| NMHC | mg/Nm³ | 11.9 | 100 mg/Nm³ | IS 5182 Part 21/2001 |

**Consent No. 12/2023-PCB/1617143/R00011760

End

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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 |

Annexure-II

Air pollution discharged to environment

| DG Sets - 3 nos. x 2000 KVA | | | | | | |
|--|--|--|--|--|--|--|
| Parameters | DG Stack-S1 | | DG Stack-S2 | | DG Stack-S3 | |
| | Concentration of pollutants in discharge (mg/Nm ³) | Quantity of pollutant discharge (kg/hr) during FY2023-2024 | Concentration of pollutants in discharge (mg/Nm ³) | Quantity of pollutant discharge (kg/hr) during FY2023-2024 | Concentration of pollutants in discharge (mg/Nm ³) | Quantity of pollutant discharge (kg/hr) during FY2023-2024 |
| Particulate Matter | 39.70 | 0.20 | 44.10 | 0.23 | 48.10 | 0.25 |
| SO ₂ | 0.54 | 0.54 | 0.53 | 0.53 | 0.60 | 0.60 |
| Nox (as NO ₂) | 63.78 | 0.32 | 103.29 | 0.55 | 122.85 | 0.63 |
| CO | 15.50 | 0.08 | 12.50 | 0.07 | 12.00 | 0.06 |
| NMHC (as C) | 13.20 | 0.07 | 12.50 | 0.07 | 11.90 | 0.06 |
| Total Running Hours (1 st April 2023 to 31 st Mach 2024) | 37.8 | | 38 | | 25.1 | |

#Note: All 3 DG sets used as standby for emergency purpose.

The concentration of the pollutants are well within the GSPCB permissible norms. DG sets stack emission parameters monitored through MoEF&CC approved laboratory. Reports are attached as **Annexure- I**.