



13th May, 2023

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

Subject: Half-yearly Compliance Report:
October 2022 to March 2023

Project PNP Maritime Services Private Limited.
Construction of minor jetty at Dharmatar Creek, Project at
District Raigad.

EC No. F. No.10-70/2016-IA-III on dated 20.08.2020

Dear Sir,

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

Thanking you,
Yours faithfully,
For PNP Maritime Services Private Limited.

Project Proponent



Enclosure: A hard copy of the compliance and monitoring report

CC copy to:

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

PNP MARITIME SERVICES PVT. LTD.

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Admin. Office: 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai 400 001.

Tel: 2288 4536/37/38/39/40 Fax: 2288 4535

Port Office: PNP Port Dharmatar at Shahabai, Dist. Raigad. Tel.: +91-2143-320766.

Website: www.pnpport.com CIN: U63090MH1999PTC121461

M/s PNP Maritime Services Pvt. Ltd

**Environmental Clearance
Compliance Report**

October 2022 to March 2023

"PNP Port"

at

**Gut No. 346, Dharamtar Creek, Village Shahbaj,
District Raigad**

**(Environmental Clearance Letter No. F. No, 10-70/2016-
IA-III Dated 20th August 2020)**

CONSULTANT



Mahabal Enviro Engineers Pvt. Ltd.

Engineers, Consultants, Environmental Monitoring Laboratory & Contractors

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

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Compliance Status of EC conditions
Environment Clearance Letter No. F. No, 10-70/2016-IA-III dated on 20th
August 2020

| No | Condition | Compliance | ☑ | P |
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| A | Specific Conditions | | | |
| (i) | The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent /permissions etc. required to be obtained under any other Act/Rule/regulation The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project. | MCZMA has recommended the project for CRZ Clearance vide Letter No. CRZ-2017/CR-323/TC4 dated 24 January,2019 | | |
| (ii) | The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC. | PP agrees with the condition | | |
| (iii) | Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. | Local and central rules and regulations including those under CRZ Notification 1991 and its amendments have been followed during construction and operation phase | | |
| (iv) | All the recommendations and conditions specified by the Maharashtra State Coastal Zone Management Authority (MCZMA) vide letter No. CRZ-2017/CR-323/TC 4 dated 24 January, 2019 shall be complied with. | PP will comply with the condition | | |
| (v) | The project proponent shall comply with the air pollution mitigation measures as submitted. | Regular monitoring has been carried out by a MoEF&CC recognized laboratory. The monitoring report has been attached. | | |
| (vi) | The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase. | No creeks or rivers are blocked due to any activities at the project site. Regular monitoring is being carried out by a MoEF&CC recognized laboratory. | | |

| No | Condition | Compliance | ☑ | P |
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| | | The monitoring report has been attached. | | |
| (vii) | No underwater blasting is permitted. | PP agrees with the condition | | |
| (viii) | Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging. No removal of silt curtain unless baseline values are achieved. | No dredging is carried out during the fish breeding season. All measures will be taken to reduce the impacts on marine environment Regular monitoring has been carried out by a MoEF&CC recognized laboratory. The monitoring report has been attached. | | |
| (ix) | Wherever possible, dredged material shall be used for bank nourishment. Otherwise, deposit the dredged material within the port premises in non-CRZ areas for land development in a manner that it does not enter the channel. With the enhanced quantities, the impact of dumping on the estuarine environment should be studied and necessary measures shall be taken on priority basis if any adverse impact is observed. | Dredged material will be used for land development with all necessary measures for adverse impact | | |
| (x) | An independent monitoring be carried out by any Government Agency/Institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line changes should be studied by the PP and necessary mitigation measures be taken in case any adverse impact is observed. The details shall be submitted along with the six-monthly monitoring report. | PP agrees with the condition. Regular monitoring has been carried out by a MoEF&CC recognized laboratory. The six-monthly monitoring report is attached. | | |
| (xi) | Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit | PP will comply with the condition | | |
| (xii) | Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand | PP agrees with the condition | | |

| No | Condition | Compliance | ☑ | P |
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| | dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components as part of the management plan. Marine ecology shall be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity | Marine ecology will be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity | | |
| (xiii) | A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit. | Noted | | |
| (xiv) | The fresh water requirement of 58 KLD shall be met from MIDC water supply scheme. | PP agrees with the condition. | | |
| (xv) | Sewage generated will be treated in STP of 50 KLD capacity. The treated water will be used for flushing, gardening and dust suppression within the port premises. | PP will comply with the condition | | |
| (xvi) | A continuous monitoring programmed covering all the seasons on various aspects of the estuarine environs need to be undertaken by a competent organization available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physio-chemical parameters along with pH coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources. | PP agrees with the condition. | | |
| (xvii) | Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC. | PP agrees with the condition. Regular monitoring has been carried out by a MoEF recognized laboratory. The monitoring report has been attached. | | |
| (xviii) | The material recovered from the cutting activity shall be used for filling low-lying areas within the | The material will be stored and used for back filling and landscape. | | |

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| | project boundaries. The actions shall be in accordance with proposed landscape planning concepts to minimize major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network. | | | |
| (xix) | Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling. | PP will comply with the condition | | |
| (xx) | All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented. | PP will comply with the condition | | |
| (xxi) | Necessary arrangement for general safety and occupational health of people should be done in letter and spirit. | PP agreed with the condition | | |
| (xxii) | All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report. | PP has submitted half yearly compliance report | | |
| (xxiii) | The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013. | PP will comply with the condition | | |
| (xxiv) | As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01 May, 2018, project proponent has proposed that an amount of Rs. 2.65 Crores (0.25% of the project cost) shall be earmarked under Corporate Environment Responsibility (CER) Plan for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall | Noted | | |

| No | Condition | Compliance | ☑ | P |
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| | be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent. | | | |
| | Standard Conditions | | | |
| | Statutory compliance | | | |
| (i) | The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project. | Noted | | |
| (ii) | The project proponent shall obtain clearance from the National Board for Wildlife, if applicable. No dredging is allowed in protected habitat areas without prior permission from NBWL. | Noted | | |
| (iii) | The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan I Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area). | Noted | | |
| (iv) | Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. | PP agrees with the condition | | |
| (v) | All the recommendations and conditions specified by State Coastal Zone Management Authority for the project shall be complied with. | PP will comply with condition | | |
| (vi) | The project proponent shall obtain Consent to Establish / Operate under the provisions of Air | Consent to operate vide Consent no. BO/MPCB/RO/(HQ)/RD3231- | | |

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| | (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee. | 16/CR/B-3912 dated: 19.03.2016 has been obtained from MPCB and Consent to Establish for expansion vide Consent no. Format 1.0/CAC/UAN No. 0000105351/CE-2107000798 dated 14.07.2021 has been obtained from MPCB. | | |
| (vii) | The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water I from the competent authority concerned in case of drawl of surface water required for the project. | Noted | | |
| (viii) | All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction | Noted | | |
| (ix) | A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained. | Noted | | |
| (x) | All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities. | Noted | | |
| II | Air quality monitoring and preservation | | | |
| (i) | The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM ₁₀ and PM _{2.5} in reference to PM emission, and SO ₂ and NO _x in reference to SO ₂ and NO _x emissions) within and outside the project area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions | PP agrees with the condition. Regular monitoring has been carried out by a MoEF-recognized laboratory. The monitoring report has been attached. | | |
| (ii) | Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all | PP agrees with the condition. | | |

| No | Condition | Compliance | ☑ | P |
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| | vulnerable sources, so as to comply prescribed emission standards. | | | |
| (iii) | Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers. | PP will comply with the condition. | | |
| (iv) | Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion. | PP will comply with the condition | | |
| (v) | The Vessels shall comply the emission norms prescribed from time to time. | Noted | | |
| (vi) | Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low Sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board. | DG set will used enclosed type and will be used only in case of power failure. | | |
| (vii) | A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ | Noted | | |

| No | Condition | Compliance | ☑ | P |
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| | competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments. | | | |
| III | Water quality monitoring and preservation | | | |
| (i) | The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. | No creeks or rivers are blocked due to any activities at the project site | | |
| (ii) | Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area. | PP agree with the condition | | |
| (iii) | No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site. | 10 KLD STP provided as per earlier EC, Now PP has proposed 50 KLD STP for proposed expansion | | |
| (iv) | Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle. | Noted | | |
| (v) | The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters. | PP will comply with the condition | | |
| (vi) | Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage. | PP will comply with the condition | | |
| (vii) | Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water. | Noted | | |
| (viii) | Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for | PP will comply with the condition. | | |

| No | Condition | Compliance | ☑ | P |
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| | horticulture, flushing, backwash, HVAC purposes and dust suppression. | | | |
| (ix) | A certificate from the competent authority for discharging treated effluent! untreated effluents into the public sewer/ disposal/drainage systems along with the final disposal point should be obtained | Noted | | |
| (x) | No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources. | Noted | | |
| (xi) | All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body. | PP will comply with the condition | | |
| IV | Noise monitoring and prevention: | | | |
| (i) | Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report. | Regular monitoring has been carried out by a MoEF&CC recognized laboratory. The monitoring report has been attached. | | |
| (ii) | Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment's. | The ambient noise levels will be monitored. Construction activities will not be carried out during night time. Efforts will be taken to reduce noise levels during construction phase. | | |
| (iii) | Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources. | Regular monitoring has been carried out by a MoEF&CC recognized laboratory. The monitoring report has been attached. | | |
| (iv) | The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time. | The ambient noise levels will be monitored. Construction activities will not be carried out during night time. Efforts will be taken to reduce noise levels during construction phase. | | |
| V | Energy Conservation measures: | | | |
| (i) | Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly; | PP agree with the condition | | |

| No | Condition | Compliance | ☑ | P |
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| (ii) | Provide LED lights in their offices and residential areas. | PP will comply with the condition | | |
| VI | Waste management: | | | |
| (i) | Dredged material shall be disposed safely in the designated areas. | PP will comply with the condition | | |
| (ii) | Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six-monthly monitoring report. | Noted | | |
| (iii) | Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986 | PP agrees with the condition | | |
| (iv) | The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016. | PP agrees with the condition | | |
| (v) | Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016. | PP agrees with the condition | | |
| (vi) | A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project. | Noted | | |
| (vii) | Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. | Noted | | |
| (viii) | Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency | Noted | | |


| No | Condition | Compliance | ☑ | P |
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| | plan under the co-ordination of Coast should be covered. | | | |
| VII | Green Belt | | | |
| (i) | Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. | Plantation will be done as per CPCB guidelines | | |
| (ii) | Top soil shall be separately stored and used in the development of green belt. | Top soil will be stored and will be used for the green belt development | | |
| VIII | Marine Ecology | | | |
| (i) | Dredging shall not be carried out during the fish breeding and spawning seasons. | Noted | | |
| (ii) | Dredging, etc. shall be carried out in the confined manner to reduce the impacts on marine environment. | PP agrees with the condition | | |
| (iii) | The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population. | Noted | | |
| (iv) | While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed. | Regular monitoring has been carried out by a MoEF&CC recognized laboratory. The monitoring report has been attached | | |
| (v) | A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as | Noted | | |

| No | Condition | Compliance | ☑ | P |
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| | per standards survey methods and include underwater photography. | | | |
| (vi) | Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity | Noted | | |
| (vii) | The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river. | Noted | | |
| IX | Public hearing and Human health issues: | | | |
| (i) | The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs. | PP will comply with the condition | | |
| (ii) | Workers shall be strictly enforced to wear personal protective equipment's like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration. | PP agrees with condition | | |
| (iii) | In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF. | PP will comply with the condition | | |
| (iv) | Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents. | PP agrees with the condition | | |

| No | Condition | Compliance | ☑ | P |
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| (v) | Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented. | Noted | | |
| (vi) | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | PP agrees with the condition | | |
| (vii) | Occupational health surveillance of the workers shall be done on a regular basis. | PP will comply with the condition | | |
| X | Corporate Environment Responsibility: | | | |
| (i) | The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders /stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report. | Noted | | |
| (ii) | A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization. | PP has made provision for environment management cell with qualified staff for the implementation of the stipulated environmental safeguards. | | |
| (iii) | Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental | Noted | | |

| No | Condition | Compliance | ☑ | P |
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| | protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report. | | | |
| (iv) | Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out. | Noted | | |
| XI. | Miscellaneous: | | | |
| (i) | The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently. | PP will comply with the condition | | |
| (ii) | The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt. | Noted | | |
| (iii) | The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis. | Noted | | |
| (iv) | The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal. | Compliance report for the period of October 2022 to March 2023 is currently being submitted. The half yearly compliance report to MPCB regularly submitted. | | |
| (v) | The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the | Noted | | |

| No | Condition | Compliance | ☑ | P |
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| | Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company | | | |
| (vi) | The criteria pollutant levels namely; PM _{2.5} , PM ₁₀ , SO ₂ , NO _x (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain | Noted and PP will be complied with. | | |
| (vii) | The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project. | Noted | | |
| (viii) | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government. | Noted | | |
| (ix) | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC). | Noted | | |
| (x) | Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986. | PP understand the issue and shall be abided accordingly. | | |
| (xi) | The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory. | Noted | | |
| (xii) | The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions. | Noted | | |
| (xiii) | The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports. | PP have cooperated with the officials for requisite data/Information/monitoring reports | | |

| No | Condition | Compliance |  | P |
|-----------|--|--|---|----------|
| (xiv) | The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter | Noted. The provisions of the approved Coastal Zone Management Plan of Maharashtra and the Supreme Court's order have been complied with. | | |
| (xv) | Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010. | Noted | | |
| 8 | This issues with the approval of the Competent Authority. | Noted | | |

Conditions of Consent to Establish Expansion
Consent to Establish Expansion vide file no.: Format1.0/CC/UAN
No.0000105351/CE-2107000798 dated: 14th July 2021

| No | Condition | Compliance | ☐ | P | | | | | | | | | | | | |
|----------|--|--|-------------------|--------------------|-------------|---------------|---|----------------|---|-------------------|---|--|------|--------|--|--|
| 1. | The consent to Establish is granted for a period up to commissioning of unit or upto 5 year whichever is earlier | Noted. | | | | | | | | | | | | | | |
| 2. | The capital investment of the project is Rs. 1061.56 Crs. (As per C.A Certificate submitted by industry Existing CI is Rs.3.21 Crs. + Expansion/Increase in CI- Rs. 1058.35 Crs.) | C.A Certificate was submitted to the MPCB. | | | | | | | | | | | | | | |
| 3. | <p>Consent is valid for handling of:</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Product name</th> <th>Maximum Quantity</th> <th>UOM</th> </tr> </thead> <tbody> <tr> <td colspan="4">Products</td> </tr> <tr> <td>1</td> <td>Jetty: for Cargo handling, Handling of Coal, Sulphur, Bulk Cargo, Break Bulk cargo, Agro commodities, Clinker, Dolomite, Limestone, Pyroxenite, Iron ore Cement, Slag, Rock Phosphate, Bauxite, Steel Coils, Bitumen, Timber, Tiles, Mill Scales, Cotton, Liquid cargo (non-Hazardous) and Port Based Industries etc.</td> <td>14</td> <td>MT/A</td> </tr> </tbody> </table> | Sr. No. | Product name | Maximum Quantity | UOM | Products | | | | 1 | Jetty: for Cargo handling, Handling of Coal, Sulphur, Bulk Cargo, Break Bulk cargo, Agro commodities, Clinker, Dolomite, Limestone, Pyroxenite, Iron ore Cement, Slag, Rock Phosphate, Bauxite, Steel Coils, Bitumen, Timber, Tiles, Mill Scales, Cotton, Liquid cargo (non-Hazardous) and Port Based Industries etc. | 14 | MT/A | Noted. | | |
| Sr. No. | Product name | Maximum Quantity | UOM | | | | | | | | | | | | | |
| Products | | | | | | | | | | | | | | | | |
| 1 | Jetty: for Cargo handling, Handling of Coal, Sulphur, Bulk Cargo, Break Bulk cargo, Agro commodities, Clinker, Dolomite, Limestone, Pyroxenite, Iron ore Cement, Slag, Rock Phosphate, Bauxite, Steel Coils, Bitumen, Timber, Tiles, Mill Scales, Cotton, Liquid cargo (non-Hazardous) and Port Based Industries etc. | 14 | MT/A | | | | | | | | | | | | | |
| | <p>Conditions under Water (P&CP), 1974 Act for discharge of effluent</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Description</th> <th>Permitted (in CMD)</th> <th>Standard to</th> <th>Disposal Path</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Trade effluent</td> <td>0</td> <td>As per Schedule-I</td> <td>Not Applicable</td> </tr> </tbody> </table> | Sr. No. | Description | Permitted (in CMD) | Standard to | Disposal Path | 1 | Trade effluent | 0 | As per Schedule-I | Not Applicable | The 31 m ³ /day of sewage generated will be treated in Sewage Treatment Plant of 50 m ³ /day capacity. | | | | |
| Sr. No. | Description | Permitted (in CMD) | Standard to | Disposal Path | | | | | | | | | | | | |
| 1 | Trade effluent | 0 | As per Schedule-I | Not Applicable | | | | | | | | | | | | |

| No | Condition | | | | | Compliance | ☑ | P |
|----|--|------------------------------------|--|----------------------------|---|--|---|---|
| | 2 | Dome stic Efflu ent | 31 | As per Schedule- I | On land for gardening | | | |
| 5. | Conditions under Air (P& CP) Act, 1981 for air emissions: | | | | | Acoustic enclosure provided | | |
| | Sr. No. | Stack No. | Descrip tion of Stack/ source | Number of Stack | Standar d to be achieved | | | |
| | 1 | S-1 | DG set [80 kVA] | 1 | As per Schedule -II | | | |
| | 2 | S-2 | DG set [500 kVA] | 1 | As per Schedule -II | | | |
| | 3 | S-3 | DG set [160 kVA] | 1 | As per Schedule -II | | | |
| | 4 | S-4 | DG set [30 kVA] | 1 | As per Schedule -II | | | |
| | 5 | S-5 | DG set [2000 kVA] | 1 | As per Schedule -II | | | |
| 6. | Non-Hazardous Wastes: | | | | | Biodegradable waste will be composted and used as manure. Non-biodegradable waste will be sold to authorized party | | |
| | Sr. No. | Type of Waste | Qua ntity | UoM | Treat ment | Dispo sal | | |
| | 1 | Biodegr adable waste | 89 | Kg/d ay | Compo sting | Used as manur e | | |
| | 2 | Non- Biodegr adable waste | 59 | Kg/d ay | Sale | Sale to author ized party | | |
| 7. | Conditions under Hazardous & Other Wastes (M&TM) Rules 2016 for treatment and disposal of hazardous waste: | | | | | Used oil will be handed over to authorized preprocessor | | |

| No | Condition | | | | | | Compliance | ☐ | P |
|-----|--|---------------------------------------|----------|------|--|--|---|---|---|
| | Sr. No. | Category No./ Type | Quantity | UoM | Treatment | Disposal | | | |
| | 1 | 5.2 Wastes or residues containing oil | 500 | MT/A | Sale to authorized processor/CH WTSD F | Sale to authorized processor/CH WTSD F | | | |
| 8. | The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry. | | | | | | Noted | | |
| 9. | This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities. | | | | | | Noted | | |
| 10. | This consent is issued pursuant to the decision of the 23 rd Consent Appraisal committee Meeting held on 17.03.2021 | | | | | | Noted | | |
| 11. | The applicant shall comply with the conditions of the Environment Clearance granted by MoEF, GOI vide letter No. J-16011/38/2001-IA-III dated 06.10.2003 | | | | | | PP complies with the condition | | |
| 12. | The applicant shall comply with the conditions of the Environment Clearance granted by MoEF, GOI vide letter No. F. No. 10-70/2016-IA-III dated 20.08.2020 | | | | | | PP complies with the condition | | |
| 13. | The applicant shall submit Environment management Plan in the Board. | | | | | | PP has submitted EMP. | | |
| 14. | The applicant shall submit BG of Rs. 25 Lakhs towards compliances of consent conditions and Environment Clearances conditions. | | | | | | PP has submitted BG of Rs. 25 lakh | | |
| 15. | The waste generated due to proposed activity should no be disposed off in CRZ area, | | | | | | Waste generated will sold to authorized party | | |
| 16. | No chemical products should be stored in the CRZ area except those permissible as per annexure of the CRZ Notification -2011 and Amendments in thereto | | | | | | Noted | | |
| 17. | The applicant shall prepare disaster management plan and shall be updated time to tome | | | | | | PP will comply with the condition | | |

| No | Condition | Compliance | <input type="checkbox"/> | P |
|-----------|--|-------------------|--------------------------|----------|
| 18. | The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before actual Commencement of the Unit/ Activity. (Establish) | Noted | | |

Scheduler I

Terms & Conditions for Compliance of Water Pollution Control

| No | Conditions | Compliance | <input type="checkbox"/> | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|----------------|--------------------------|-----------|--|---|----|---------------|---------|---|-----|---------------|----|---|-----|---------------|----|---|-----|---------------|----|---|-------|---------------|---|---|---------|---------------|----|---|----------------|---------------|---------------|--|--|
| 1. | A] Generation- As per your application the treated effluent generation is Nil. B] Treatment- NA C] Disposal- NA | Not Applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | A. As per your application, you have provided Sewage Treatment Plant of designed capacity 50 CMD for the treatment of 31 CMD of sewage. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B. The application shall operate the sewage treatment system to treat the sewage so as to achieve the following standards. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Sr.</th> <th>Parameters</th> <th colspan="2">Standards</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>pH</td> <td>Not to exceed</td> <td>5.5-9.0</td> </tr> <tr> <td>2</td> <td>BOD</td> <td>Not to exceed</td> <td>10</td> </tr> <tr> <td>3</td> <td>COD</td> <td>Not to exceed</td> <td>50</td> </tr> <tr> <td>4</td> <td>TSS</td> <td>Not to exceed</td> <td>20</td> </tr> <tr> <td>5</td> <td>NH4 N</td> <td>Not to exceed</td> <td>5</td> </tr> <tr> <td>6</td> <td>N-total</td> <td>Not to exceed</td> <td>10</td> </tr> <tr> <td>7</td> <td>Fecal Coliform</td> <td>Not to exceed</td> <td>Less than 100</td> </tr> </tbody> </table> | Sr. | Parameters | Standards | | 1 | pH | Not to exceed | 5.5-9.0 | 2 | BOD | Not to exceed | 10 | 3 | COD | Not to exceed | 50 | 4 | TSS | Not to exceed | 20 | 5 | NH4 N | Not to exceed | 5 | 6 | N-total | Not to exceed | 10 | 7 | Fecal Coliform | Not to exceed | Less than 100 | | |
| Sr. | Parameters | Standards | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | pH | Not to exceed | 5.5-9.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | BOD | Not to exceed | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | COD | Not to exceed | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | TSS | Not to exceed | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | NH4 N | Not to exceed | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | N-total | Not to exceed | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Fecal Coliform | Not to exceed | Less than 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | C. The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, sewage shall find its way for gardening/ outside factory premises. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| No | Conditions | Compliance | <input type="checkbox"/> | P | | | | | | | | | | | | | | | | | | |
|---------|---|--|----------------------------|----------------------------------|----|--|-------|----|------------------|-------|----|--|------|----|--|------|----|-----------|---|--------|--|--|
| 4. | The industry shall ensure replacement of pollution control system or its part after expiry of its expected life as defined by manufacture so as to ensure the compliance of the standards and safety of the operation thereof. | Agreed | | | | | | | | | | | | | | | | | | | | |
| 5. | <p>The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:</p> <table border="1" data-bbox="288 602 906 1339"> <thead> <tr> <th data-bbox="288 602 419 725">Sr. No.</th> <th data-bbox="419 602 651 725">Purpose for water consumed</th> <th data-bbox="651 602 906 725">Water consumption quantity (CMD)</th> </tr> </thead> <tbody> <tr> <td data-bbox="288 725 419 831">1.</td> <td data-bbox="419 725 651 831">Industrial Cooling, spraying in mine pits or boiler feed</td> <td data-bbox="651 725 906 831">40.00</td> </tr> <tr> <td data-bbox="288 831 419 887">2.</td> <td data-bbox="419 831 651 887">Domestic purpose</td> <td data-bbox="651 831 906 887">33.00</td> </tr> <tr> <td data-bbox="288 887 419 1070">3.</td> <td data-bbox="419 887 651 1070">Processing whereby water gets polluted & pollutants are easily biodegradable</td> <td data-bbox="651 887 906 1070">0.00</td> </tr> <tr> <td data-bbox="288 1070 419 1283">4.</td> <td data-bbox="419 1070 651 1283">Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic</td> <td data-bbox="651 1070 906 1283">0.00</td> </tr> <tr> <td data-bbox="288 1283 419 1339">5.</td> <td data-bbox="419 1283 651 1339">Gardening</td> <td data-bbox="651 1283 906 1339">0</td> </tr> </tbody> </table> | Sr. No. | Purpose for water consumed | Water consumption quantity (CMD) | 1. | Industrial Cooling, spraying in mine pits or boiler feed | 40.00 | 2. | Domestic purpose | 33.00 | 3. | Processing whereby water gets polluted & pollutants are easily biodegradable | 0.00 | 4. | Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic | 0.00 | 5. | Gardening | 0 | Agreed | | |
| Sr. No. | Purpose for water consumed | Water consumption quantity (CMD) | | | | | | | | | | | | | | | | | | | | |
| 1. | Industrial Cooling, spraying in mine pits or boiler feed | 40.00 | | | | | | | | | | | | | | | | | | | | |
| 2. | Domestic purpose | 33.00 | | | | | | | | | | | | | | | | | | | | |
| 3. | Processing whereby water gets polluted & pollutants are easily biodegradable | 0.00 | | | | | | | | | | | | | | | | | | | | |
| 4. | Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic | 0.00 | | | | | | | | | | | | | | | | | | | | |
| 5. | Gardening | 0 | | | | | | | | | | | | | | | | | | | | |
| 6. | The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/CREP guidelines. | STP of 50 m ³ /day proposed to provide on the site. | | | | | | | | | | | | | | | | | | | | |

Scheduler-II

Terms & conditions for compliance of Air Pollution Control

| No | Conditions | Compliance | ☑ | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|--------------------|-------------------|------------------------|-----------------|-----------------|--------------|-----------|----------|-----|-----------------|--------------------|-----|-----------------------|---|-----------------|------------|-------|---|-------|---|-----|------------------|--------------------|-----|------------------------|---|-----------------|--------------|-------|---|-------|---|-----|------------------|--------------------|-----|-----------------------|---|-----------------|------------|-------|---|-------|---|-----|-----------------|--------------------|-----|-----------------------|---|-----------------|------------|-------|---|--|--|
| 1. | As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern: | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Stack No.</th> <th style="text-align: center;">Stack Attached To</th> <th style="text-align: center;">APC System</th> <th style="text-align: center;">Height In Mtrs.</th> <th style="text-align: center;">Type of Fuel</th> <th style="text-align: center;">S %</th> <th style="text-align: center;">Pollutant</th> <th style="text-align: center;">Standard</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="text-align: center;">S-1</td> <td rowspan="3" style="text-align: center;">DG set [80 kVA]</td> <td rowspan="3" style="text-align: center;">Acoustic Enclosure</td> <td rowspan="3" style="text-align: center;">3.0</td> <td rowspan="3" style="text-align: center;">Diesel 6.25 Kg/H R</td> <td rowspan="3" style="text-align: center;">1</td> <td style="text-align: center;">SO₂</td> <td style="text-align: center;">3.0 kg/day</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> <tr> <td rowspan="3" style="text-align: center;">S-2</td> <td rowspan="3" style="text-align: center;">DG set [500 kVA]</td> <td rowspan="3" style="text-align: center;">Acoustic Enclosure</td> <td rowspan="3" style="text-align: center;">5.0</td> <td rowspan="3" style="text-align: center;">Diesel 41.66 Kg/H R</td> <td rowspan="3" style="text-align: center;">1</td> <td style="text-align: center;">SO₂</td> <td style="text-align: center;">19.99 kg/day</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> <tr> <td rowspan="3" style="text-align: center;">S-3</td> <td rowspan="3" style="text-align: center;">DG set [160 kVA]</td> <td rowspan="3" style="text-align: center;">Acoustic Enclosure</td> <td rowspan="3" style="text-align: center;">3.0</td> <td rowspan="3" style="text-align: center;">Diesel 12.5 Kg/H R</td> <td rowspan="3" style="text-align: center;">1</td> <td style="text-align: center;">SO₂</td> <td style="text-align: center;">6.0 kg/day</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> <tr> <td rowspan="2" style="text-align: center;">S-4</td> <td rowspan="2" style="text-align: center;">DG set [30 kVA]</td> <td rowspan="2" style="text-align: center;">Acoustic Enclosure</td> <td rowspan="2" style="text-align: center;">3.0</td> <td rowspan="2" style="text-align: center;">Diesel 2.08 Kg/H R</td> <td rowspan="2" style="text-align: center;">1</td> <td style="text-align: center;">SO₂</td> <td style="text-align: center;">1.0 kg/day</td> </tr> <tr> <td style="text-align: center;">Other</td> <td style="text-align: center;">-</td> </tr> </tbody> </table> | Stack No. | Stack Attached To | APC System | Height In Mtrs. | Type of Fuel | S % | Pollutant | Standard | S-1 | DG set [80 kVA] | Acoustic Enclosure | 3.0 | Diesel 6.25 Kg/H R | 1 | SO ₂ | 3.0 kg/day | Other | - | Other | - | S-2 | DG set [500 kVA] | Acoustic Enclosure | 5.0 | Diesel 41.66 Kg/H R | 1 | SO ₂ | 19.99 kg/day | Other | - | Other | - | S-3 | DG set [160 kVA] | Acoustic Enclosure | 3.0 | Diesel 12.5 Kg/H R | 1 | SO ₂ | 6.0 kg/day | Other | - | Other | - | S-4 | DG set [30 kVA] | Acoustic Enclosure | 3.0 | Diesel 2.08 Kg/H R | 1 | SO ₂ | 1.0 kg/day | Other | - | | |
| Stack No. | Stack Attached To | APC System | Height In Mtrs. | Type of Fuel | S % | Pollutant | Standard | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-1 | DG set [80 kVA] | Acoustic Enclosure | 3.0 | Diesel 6.25 Kg/H R | 1 | SO ₂ | 3.0 kg/day | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-2 | DG set [500 kVA] | Acoustic Enclosure | 5.0 | Diesel 41.66 Kg/H R | 1 | SO ₂ | 19.99 kg/day | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-3 | DG set [160 kVA] | Acoustic Enclosure | 3.0 | Diesel 12.5 Kg/H R | 1 | SO ₂ | 6.0 kg/day | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-4 | DG set [30 kVA] | Acoustic Enclosure | 3.0 | Diesel 2.08 Kg/H R | 1 | SO ₂ | 1.0 kg/day | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Other | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| No | Conditions | | | | | | | | Compliance | ☑ | P |
|----|--|-------------------|--------------------|-----|-------------------|---|-----------------|------------|-------------------------------|---|---|
| | | | | | | | Other | - | | | |
| | S-5 | DG set [2000 kVA] | Acoustic Enclosure | 5.0 | Diesel 400 Kg/H R | 1 | SO ₂ | 192 kg/day | | | |
| | | | | | | | Other | - | | | |
| | | | | | | | Other | - | | | |
| 2. | The Applicant shall provide Specific Air Pollution control equipment's as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/CREP guidelines. | | | | | | | | PP agrees with the condition. | | |
| 3. | The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/ alternation well before its life come to an end or erection or new pollution control equipment. | | | | | | | | PP agrees with the condition. | | |
| 4. | The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment other in whole or in part in necessary) | | | | | | | | Noted | | |
| 5. | The trucks will be covered with tarpaulin sheets to prevent coal from spiling/ creating ai pollution nuisance during coal transportation. | | | | | | | | PP agrees with the condition. | | |
| 6. | To mitigate the dust emission during loading of cargos such as coal 1] Mix of truck movement and conveyor system shall be considered for cargo movement between the barges to storage area. 2]Grab unloaders or clamp shell buckets shall be provided to reduce dust, spillage, handling loss etc. during cargo loading on trucks. | | | | | | | | PP agrees with the condition. | | |
| 7. | During cargo handling the dust shall be controlled by using water foggers. Wind screens shall be used to reduce fugitive emission, stock piles, excavated earthen material etc. shall be managed with water sprinkling to avoid dust being airborne from the specific site. | | | | | | | | PP agrees with the condition. | | |
| 8. | PP shall implement Traffic Management plan and recommendations as per the PNP Port Expansion Traffic Impact Study of October 2018 | | | | | | | | Noted | | |
| 9. | The PP shall ensure that fugitive emission from the activity are control so as to maintain clean and safe environment in and around the port premises. | | | | | | | | PP agrees with the condition. | | |

| No | Conditions | Compliance | ☑ | P |
|-----|---|-------------------------------|---|---|
| 10. | All entry point, internal roads and loading/unloading area must be road worthy for movement of heavy vehicles by using low permeability material (Concrete or bitumen) and be cleaned regularly to minimize potential for dust generation and off site impact. | PP agrees with the condition. | | |
| 11. | PP shall implement Traffic Management Study Report of October 2018 | PP agrees with the condition. | | |
| 12. | The Coal from jetty shall be removed using close system to control dust/fugitive emissions and shall meet the standards that may be prescribed. The side wall of 5 meter height shall be provided and for the dust suppression, water sprinkling arrangement of water pressure of minimum 4 Kg/cm shall be maintained during lading of coal on trucks at coal storage yard. The entire operation of coal handling shall be done with operating dust and wind suppression equipment's and monitoring of ambient air quality as per guidelines of the board. The handling of coal shall be done as per the Environmentally Sound management. The qty of coal to be handled will be assessed based on the stockyard size, maximum permissible safe height, dwell time, mode of evacuation and the capacity of roads to evacuate the traffic induced. PP shall submit designed details of pollution control system proposed for coal. | PP agrees with the condition. | | |
| 13. | PP shall achieve the National Ambient Air Quality Standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated 18.11.2009 as amended | Noted | | |

Schedule-III

Details of Bank Guarantee

| Sr | Consent (C2E/C2O)/C2R) | Amt of BG imposed | Submission period | Purpose of BG | Compliance Period | Validity Date | Compliance |
|----|---|-------------------|-------------------|---|-------------------|----------------|---|
| 1 | Consent to Establish for expansion ie Handling of additional cargoes from 5 MTPA capacity to 19 MTPA capacity | Rs.25 lakh | 15 Days | Towards O and M of pollution control system Compliance consent conditions & Conditions of EC. | Continuou s | 30/04/20 26 | The BG in Format required by MPCB was submitted |

BG Forfeiture History

| Sr | Consent (C2E/C2O) /C2R) | Amt of BG imposed | Submission period | Purpose of BG | Compliance Period | Validity Date |
|-----|-------------------------|-------------------|-------------------|---------------|-------------------|---------------|
| N/A | | | | | | |

BG Return Details

| Sr. | Consent (C2E/C2O/C2R) | BG Imposed | Submission Period | Purpose of BG | Amount of BG Returned |
|-----|-----------------------|------------|-------------------|---------------|-----------------------|
| NA | | | | | |

Schedule IV

General Conditions

| No | Conditions | Compliance | ☑ | P |
|----|---|--|---|---|
| 1. | The Energy source for lighting purpose shall preferably be LED based | Yes, LED lighting is being provided. | | |
| 2. | The PP shall harvest rainwater from roof tops of the building and Storm water drains to the recharge the ground water and utilize the same for different industrial applications within the plant | Rainwater harvesting system has been provided | | |
| 3. | <p>Conditions for D.G Set</p> <p>a) Noise from the D.G Set Should be controlled by providing an acoustic enclosure or by treating the room acoustically.</p> <p>b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 db(A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 db(A) shall be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.</p> <p>c) Industry should make efforts to bring down noise level due to D.G set, outside industrial premises, within ambient noise requirement by proper siting and control measures.</p> <p>d) Installation of D.G Set must be strictly in compliance with recommendations of D.G Set manufacturer.</p> <p>e) A proper routine and preventive maintenance procedure for D.G set should set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.</p> <p>f) DG Set shall be operated only in case of power failure.</p> <p>g) The application should not cause any nuisance in the surrounding area due to operation of D.G Set.</p> <p>h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371 (E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.</p> | <p>Acoustic enclosures have been provided to the D.G Sets.</p> <p>D.G Sets installed are strictly in compliance with recommendations of D.G Set manufacturer</p> <p>DG Set will be operated only in case of power failure.</p> | | |
| 4. | The applicant shall maintain good housekeeping. | Proper housekeeping practices are followed. | | |

| No | Conditions | Compliance | ☑ | P |
|-----|---|--|---|---|
| 5. | The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste. | Noted and is being complied with. | | |
| 6. | The applicant shall not change or alter the quantity, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board. | No changes in emissions/effluent will be brought about without requisite permissions. | | |
| 7. | The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises. | Noted and is being complied with. | | |
| 8. | The industry shall submit quarterly statement in respect of industries obligations towards consent and pollution control compliance duly supported with documentary evidences (format can be downloaded from MPCB official site) | Agreed and will be complied with. | | |
| 9. | The industry shall submit official e-mail address and any change will be duly informed to MPCB. | Noted | | |
| 10. | The industry shall achieve the National Ambient Air Quality Standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated 18.11.2009 as amended. | Air sampling and testing is carried out by a MoEF&CC approved lab. The parameters are within the prescribed limits. Copy of monitoring report has been attached. | | |
| 11. | The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto. | Noted | | |
| 12. | The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof. | Agreed | | |
| 13. | The PP shall provide personal protection equipment as per norms of the Factory Act | Personal Protection Equipment's are provided | | |

| No | Conditions | Compliance | ☑ | P |
|-----|---|---|---|---|
| | | to the workers wherever required. | | |
| 14. | Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. | Regular air quality monitoring has been carried out by MoEF&CC approved lab. Copy of monitoring report has been attached. | ✓ | |
| 15. | Whenever due to any accident or other unforeseen act or even emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In ae of failure of pollution control equipments, the production process connected to it shall be stopped. | Agreed | | |
| 16. | The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, consent | D.G set has been provided on the site for back up in case of power failure. | | |
| 17. | The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M& TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for landfilling and cannot be recycled/ reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment. | Agreed | | |
| 18. | An inspection book shall be opened and made available to the Board’s officers during their visit to the applicant. | Agreed. Inspection book will be made available to the Board’s officer during the site visit. | | |
| 19. | Industry shall strictly comply with water (P&PC) Act, 1974, Air (P&CP) Act 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in). | PP will comply with water (P&PC) Act, 1974, Air (P&CP) Act 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 | | |
| 20. | Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal | Separate drainage system has been provided and no external effluent is admitted into the collection system | | |

| No | Conditions | Compliance | ☑ | P |
|-----|---|--|---|---|
| | manholes. No effluent shall find its way other than in designed and provided collection system. | | | |
| 21. | Neither storm water nor discharge from other premises shall be allowed to mix the effluent from the factory. | Wastewater and storm water are not allowed to mix with the effluent. | | |
| 22. | The industry should not cause any nuisance in surrounding area. | Agreed. The industry will not cause any nuisance in surrounding area. | | |
| 23. | The industry shall take adequate measure for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 db(A) during day time and 70 db(A) during night time. Day time is reckoned in between 6 a.m and 10 p.m and night time is reckoned between 10 p.m and 6 a.m. | The ambient noise levels will be monitored. Construction activities will not be carried out during night time. Efforts will be taken to reduce noise levels during construction phase. | | |
| 24. | The industry shall create the Environment Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day-to-day activities related to Environment and irrigation field where treated effluent is used for irrigation | An Environment Cell has been created which is responsible for implementing the Environment Management Plan on the project site. | | |
| 25. | The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2 etc. and these shall be painted /displayed to facilitate identification. | Noted | | |
| 26. | The industry should comply with the Hazardous and Other Wastes (M&TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20 (2) of Hazardous and other Wastes (M& TM) Rules, 2016 for the preceding year April to March in Form-IV by 30 th June of every year. | Form IV is regularly submitted by 30 th June of every year. | | |
| 27. | The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained. | Separate meters have been provided. | | |
| 28. | The applicant shall bring minimum 33% of the available open land under green coverage/plantation. The applicant shall submit a yearly statement by 30 th September every year on available open plot area, number of trees surviving as on 31 st March of the year and number of trees planted by September end. | Green Belt of has been provided with nearly 2000 nos. trees planted. Trees have been planted as per the CPCB guidelines. | | |

| No | Conditions | Compliance | ☑ | P |
|-----|--|---|---|---|
| 29. | The Board reserves its right to review plans, specifications or other data relating to plant setup for the treatment of waterworks for purification thereof & the system for disposal of sewage or trade effluent or in connection with the grant of any consent conditions. | Noted | | |
| 30. | The firm shall submit to this office, the 30 th day of September every year, the Environment Statement Report for the financial year ending 31 st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules,1992. | Form V is submitted regularly. Acknowledgement copy has been attached. | | |
| 31. | The Applicant shall obtain necessary prior permissions for providing additional control equipment with necessary specification and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment. | Noted | | |
| 32. | The Board reserves its rights to vary all or any of the conditions in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary). | Noted | | |
| 33. | The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents. air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay the Board for the services rendered in this behalf. | Agreed | | |

Consent to Operate

**Renewal to existing Consent to Operate vide file no.: Format1.0/CC/UAN
No.0000103714/CR 210400133 dated: 27th April 2021.**

| No | Conditions | Compliance | ☑ | P | | | | | | | | | | | | | | | |
|----------|---|---|-------------------|------------------------------|-----------------|-------------------------|---|----------------|----------------|-------------------|--|----------------|-------------------|--------|-------------------|-----------------------|--|--|--|
| 1. | The consent to renewal is granted for a period up to 31.12.2025. | Noted. Consent will be renewed well in advance. | | | | | | | | | | | | | | | | | |
| 2. | The capital investment of the project is Rs. 73.66 Crs. (As per C.A Certificate submitted by industry Existing CI is Rs.3.21 Crs. + Expansion/Increase in CI- Rs. 70.45 Crs.) | C.A Certificate was submitted to the MPCB. | | | | | | | | | | | | | | | | | |
| 3. | <p>Consent is valid for handling of:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sr.</th> <th style="text-align: center;">Product name</th> <th style="text-align: center;">Maximum Quantity</th> <th style="text-align: center;">UOM</th> </tr> </thead> <tbody> <tr> <td colspan="4">Products</td> </tr> <tr> <td style="text-align: center;">1</td> <td>Jetty: for Cargo handling, Handling of Coal, Sulphur, Rock Phosphate, Iron Ore, Bauxite and Edible Oil Cargo</td> <td style="text-align: center;">5</td> <td style="text-align: center;">MT/A</td> </tr> </tbody> </table> <p>The Consent is valid for the operation of Jetty (100 Mtrs, North Side of the Nallah (North of Khochi) Dharamtar Creek</p> | Sr. | Product name | Maximum Quantity | UOM | Products | | | | 1 | Jetty: for Cargo handling, Handling of Coal, Sulphur, Rock Phosphate, Iron Ore, Bauxite and Edible Oil Cargo | 5 | MT/A | Noted. | | | | | |
| Sr. | Product name | Maximum Quantity | UOM | | | | | | | | | | | | | | | | |
| Products | | | | | | | | | | | | | | | | | | | |
| 1 | Jetty: for Cargo handling, Handling of Coal, Sulphur, Rock Phosphate, Iron Ore, Bauxite and Edible Oil Cargo | 5 | MT/A | | | | | | | | | | | | | | | | |
| 4. | <p>Conditions under Water (P&CP), 1974 Act for discharge of effluent</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sr.</th> <th style="text-align: center;">Description</th> <th style="text-align: center;">Permitted (in CMD)</th> <th style="text-align: center;">Standard to</th> <th style="text-align: center;">Disposal Path</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Trade effluent</td> <td style="text-align: center;">0</td> <td style="text-align: center;">As per Schedule-I</td> <td style="text-align: center;">Not Applicable</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Domestic Effluent</td> <td style="text-align: center;">7.5</td> <td style="text-align: center;">As per Schedule-I</td> <td style="text-align: center;">On land for gardening</td> </tr> </tbody> </table> | Sr. | Description | Permitted (in CMD) | Standard to | Disposal Path | 1 | Trade effluent | 0 | As per Schedule-I | Not Applicable | 2 | Domestic Effluent | 7.5 | As per Schedule-I | On land for gardening | The 7.5 m ³ /day of sewage generated is treated in Sewage Treatment Plant of 10 m ³ /day capacity. | | |
| Sr. | Description | Permitted (in CMD) | Standard to | Disposal Path | | | | | | | | | | | | | | | |
| 1 | Trade effluent | 0 | As per Schedule-I | Not Applicable | | | | | | | | | | | | | | | |
| 2 | Domestic Effluent | 7.5 | As per Schedule-I | On land for gardening | | | | | | | | | | | | | | | |
| 5. | <p>Conditions under Air (P& CP) Act, 1981 for air emissions:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sr.</th> <th style="text-align: center;">Stack No.</th> <th style="text-align: center;">Description of Stack/ source</th> <th style="text-align: center;">Number of Stack</th> <th style="text-align: center;">Standard to be achieved</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">0</td> <td style="text-align: center;">As per Schedule-II</td> </tr> </tbody> </table> | Sr. | Stack No. | Description of Stack/ source | Number of Stack | Standard to be achieved | 1 | Not Applicable | Not Applicable | 0 | As per Schedule-II | Not Applicable | | | | | | | |
| Sr. | Stack No. | Description of Stack/ source | Number of Stack | Standard to be achieved | | | | | | | | | | | | | | | |
| 1 | Not Applicable | Not Applicable | 0 | As per Schedule-II | | | | | | | | | | | | | | | |
| 6. | Non-Hazardous Wastes: | Not Applicable | | | | | | | | | | | | | | | | | |

| No | Conditions | | | | | | Compliance | ☑ | P |
|-----|--|---------------------------------------|----------|------|---|--|---|---|---|
| | Sr. | Type of Waste | Quantity | UoM | Treatment | Disposal | | | |
| | 1 | Not Applicable | 0 | -NA- | Not Applicable | Not Applicable | | | |
| 7. | Conditions under Hazardous & Other Wastes (M&TM) Rules 2016 for treatment and disposal of hazardous waste: | | | | | | Used oil will be handed over to authorized preprocessor | | |
| | Sr. | Category No./ Type | Quantity | UoM | Treatment | Disposal | | | |
| | 1 | 5.2 Wastes or residues containing oil | 500 | MT/A | Sale to authorized preprocessor /CHW TSDf | Sale to authorized preprocessor/CHW TSDf | | | |
| 8. | The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry. | | | | | | Noted | | |
| 9. | This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities. | | | | | | Noted | | |
| 10. | The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent (Operate/ Renewal) | | | | | | Noted | | |
| 11. | The applicant shall comply with the conditions of the CRZ clearance granted vide letter No. J-160011/38/2001-A-III dt. 06/10/2003 | | | | | | The conditions given in the CRZ clearance dated 06.10.2003 will be complied with. | | |
| 12. | The applicant shall comply with the conditions of the Environmental Clearance & CRZ Clearance granted vide letter No. F.No. 10-70/2016-1A-III dt. 20/08/2020 | | | | | | The conditions given in the Environmental Clearance & CRZ Clearance dated 20.08.2020 will be complied with. | | |
| 13. | Industry shall submit Bank Guarantee of Rs. 5 Lakhs towards compliance of Consent conditions & Conditions stipulated in Environmental Clearance & CRZ clearance. | | | | | | The bank guarantee has been submitted to the MPCB | | |

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

| No | Conditions | Compliance | <input type="checkbox"/> | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|----------------|--------------------------|-----------|--|---|----|---------------|---------|---|-----|---------------|----|---|-----|---------------|----|---|-----|---------------|----|---|-------|---------------|---|---|---------|---------------|----|---|----------------|---------------|---------------|--|--|
| 1. | A] Generation- As per your application the treated effluent generation is Nil. B] Treatment- NA C] Disposal- NA | Not Applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | A. As per your application, you have provided Sewage Treatment Plant of designed capacity 10 CMD for the treatment of 7.5 CMD of sewage. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B. The application shall operate the sewage treatment system to treat the sewage so as to achieve the following standards. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Parameters</th> <th colspan="2">Standards</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>pH</td> <td>Not to exceed</td> <td>5.5-9.0</td> </tr> <tr> <td>2</td> <td>BOD</td> <td>Not to exceed</td> <td>10</td> </tr> <tr> <td>3</td> <td>COD</td> <td>Not to exceed</td> <td>50</td> </tr> <tr> <td>4</td> <td>TSS</td> <td>Not to exceed</td> <td>20</td> </tr> <tr> <td>5</td> <td>NH4 N</td> <td>Not to exceed</td> <td>5</td> </tr> <tr> <td>6</td> <td>N-total</td> <td>Not to exceed</td> <td>10</td> </tr> <tr> <td>7</td> <td>Fecal Coliform</td> <td>Not to exceed</td> <td>Less than 100</td> </tr> </tbody> </table> | Sr. No | Parameters | Standards | | 1 | pH | Not to exceed | 5.5-9.0 | 2 | BOD | Not to exceed | 10 | 3 | COD | Not to exceed | 50 | 4 | TSS | Not to exceed | 20 | 5 | NH4 N | Not to exceed | 5 | 6 | N-total | Not to exceed | 10 | 7 | Fecal Coliform | Not to exceed | Less than 100 | | |
| Sr. No | Parameters | Standards | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | pH | Not to exceed | 5.5-9.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | BOD | Not to exceed | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | COD | Not to exceed | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | TSS | Not to exceed | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | NH4 N | Not to exceed | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | N-total | Not to exceed | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Fecal Coliform | Not to exceed | Less than 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | C. The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, sewage shall find its way for gardening/ outside factory premises. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto. | Noted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| No | Conditions | Compliance | <input type="checkbox"/> | P | | | | | | | | | | | | | | | | | | |
|-----|--|--|----------------------------|----------------------------------|----|--|-------|----|------------------|-------|----|--|------|----|--|------|----|-----------|----|--------|--|--|
| 4. | The industry shall ensure replacement of pollution control system or its part after expiry of its expected life as defined by manufacture so as to ensure the compliance of the standards and safety of the operation thereof. | Agreed | | | | | | | | | | | | | | | | | | | | |
| 5. | <p>The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:</p> <table border="1" data-bbox="285 602 906 1572"> <thead> <tr> <th data-bbox="285 602 418 734">Sr.</th> <th data-bbox="418 602 649 734">Purpose for water consumed</th> <th data-bbox="649 602 906 734">Water consumption quantity (CMD)</th> </tr> </thead> <tbody> <tr> <td data-bbox="285 734 418 925">1.</td> <td data-bbox="418 734 649 925">Industrial Cooling, spraying in mine pits or boiler feed</td> <td data-bbox="649 734 906 925">10.00</td> </tr> <tr> <td data-bbox="285 925 418 1028">2.</td> <td data-bbox="418 925 649 1028">Domestic purpose</td> <td data-bbox="649 925 906 1028">10.00</td> </tr> <tr> <td data-bbox="285 1028 418 1249">3.</td> <td data-bbox="418 1028 649 1249">Processing whereby water gets polluted & pollutants are easily biodegradable</td> <td data-bbox="649 1028 906 1249">0.00</td> </tr> <tr> <td data-bbox="285 1249 418 1496">4.</td> <td data-bbox="418 1249 649 1496">Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic</td> <td data-bbox="649 1249 906 1496">0.00</td> </tr> <tr> <td data-bbox="285 1496 418 1572">5.</td> <td data-bbox="418 1496 649 1572">Gardening</td> <td data-bbox="649 1496 906 1572">10</td> </tr> </tbody> </table> | Sr. | Purpose for water consumed | Water consumption quantity (CMD) | 1. | Industrial Cooling, spraying in mine pits or boiler feed | 10.00 | 2. | Domestic purpose | 10.00 | 3. | Processing whereby water gets polluted & pollutants are easily biodegradable | 0.00 | 4. | Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic | 0.00 | 5. | Gardening | 10 | Agreed | | |
| Sr. | Purpose for water consumed | Water consumption quantity (CMD) | | | | | | | | | | | | | | | | | | | | |
| 1. | Industrial Cooling, spraying in mine pits or boiler feed | 10.00 | | | | | | | | | | | | | | | | | | | | |
| 2. | Domestic purpose | 10.00 | | | | | | | | | | | | | | | | | | | | |
| 3. | Processing whereby water gets polluted & pollutants are easily biodegradable | 0.00 | | | | | | | | | | | | | | | | | | | | |
| 4. | Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic | 0.00 | | | | | | | | | | | | | | | | | | | | |
| 5. | Gardening | 10 | | | | | | | | | | | | | | | | | | | | |
| 6. | The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/CREP guidelines. | STP of 10 m ³ /day has been provided on the site. | | | | | | | | | | | | | | | | | | | | |

Schedule -II

Terms & conditions for compliance of Air Pollution Control

| No | Conditions | Compliance | ☑ | P | | | | | | | | | | | | | | | | |
|--------------------------|---|-------------------------------|-------------------|----------------|--------------------------|---------------|------------------------|--------|-----------------|----------------|----------------|----------------|----------------|----------------|----|----|----|-------|--|--|
| 1. | <p>As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Stack No.</th> <th style="text-align: center;">Stack Attached To</th> <th style="text-align: center;">APC System</th> <th style="text-align: center;">Height In Mtrs.</th> <th style="text-align: center;">Type of Fuel</th> <th style="text-align: center;">Quantity</th> <th style="text-align: center;">S %</th> <th style="text-align: center;">SO₂</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">Not Applicable</td> <td style="text-align: center;">--</td> <td style="text-align: center;">--</td> <td style="text-align: center;">--</td> </tr> </tbody> </table> | Stack No. | Stack Attached To | APC System | Height In Mtrs. | Type of Fuel | Quantity | S % | SO ₂ | Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable | -- | -- | -- | Noted | | |
| Stack No. | Stack Attached To | APC System | Height In Mtrs. | Type of Fuel | Quantity | S % | SO ₂ | | | | | | | | | | | | | |
| Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable | -- | -- | -- | | | | | | | | | | | | | |
| 2. | The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/CREP guidelines. | PP agrees with the condition. | | | | | | | | | | | | | | | | | | |
| 3. | <p>The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Parameters</th> <th colspan="2" style="text-align: center;">Standards</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Total Particulate Matter</td> <td style="text-align: center;">Not to exceed</td> <td style="text-align: center;">150 mg/Nm³</td> </tr> </tbody> </table> | Parameters | Standards | | Total Particulate Matter | Not to exceed | 150 mg/Nm ³ | Agreed | | | | | | | | | | | | |
| Parameters | Standards | | | | | | | | | | | | | | | | | | | |
| Total Particulate Matter | Not to exceed | 150 mg/Nm ³ | | | | | | | | | | | | | | | | | | |
| 4. | The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/ alternation well before its life come to an end or erection or new pollution control equipment. | PP agrees with the condition. | | | | | | | | | | | | | | | | | | |
| 5. | The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment other in whole or in part in necessary) | Noted | | | | | | | | | | | | | | | | | | |

Schedule -III

Details of Bank Guarantees

| Sr. | Consent (C2E/C2O/C2R) | Amt of BG Imposed | Submission Period | Purpose of BG | Compliance Period | Validity Date | Compliance |
|-----|-----------------------|-------------------|-------------------|--|-------------------|---------------|---|
| 1 | Consent to Operate | Rs.5 lakh | 15 Days | Towards O and M of pollution control system Compliance consent conditions | 31/12/2025 | 30/04/2026 | The BG in Format required by MPCB was submitted |

BG Forfeiture History

| Sr. | Consent (C2E/C2O/C2R) | Amt of BG Imposed | Submission Period | Purpose of BG | Amount of BG Forfeiture | Reason of BG Forfeiture |
|-----|-----------------------|-------------------|-------------------|---------------|-------------------------|-------------------------|
| NA | | | | | | |

BG Return Details

| Sr. | Consent (C2E/C2O/C2R) | BG Imposed | Submission Period | Purpose of BG | Amount of BG Returned |
|-----|-----------------------|------------|-------------------|---------------|-----------------------|
| NA | | | | | |

Schedule -IV

General Conditions

| Sr. | Conditions | Compliance | ☑ | P |
|-----|---|--|---|---|
| 1. | The Energy source for lighting purpose shall preferably be LED based | Yes, LED lighting is being provided. | | |
| 2. | The PP shall harvest rainwater from roof tops of the building and Storm water drains to the recharge the ground water and utilize the same for different industrial applications within the plant | Rainwater harvesting system has been provided | | |
| 3. | <p>Conditions for D.G Set</p> <p>a) Noise from the D.G Set Should be controlled by providing an acoustic enclosure or by treating the room acoustically.</p> <p>b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 db(A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 db(A) shall be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.</p> <p>c) Industry should make efforts to bring down noise level due to D.G set, outside industrial premises, within ambient noise requirement by proper siting and control measures.</p> <p>d) Installation of D.G Set must be strictly in compliance with recommendations of D.G Set manufacturer.</p> <p>e) A proper routine and preventive maintenance procedure for D.G set should set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.</p> <p>f) DG Set shall be operated only in case of power failure.</p> <p>g) The application should not cause any nuisance in the surrounding area due to operation of D.G Set.</p> <p>h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371 (E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.</p> | <p>Acoustic enclosures have been provided to the D.G Sets.</p> <p>D.G Sets installed are strictly in compliance with recommendations of D.G Set manufacturer</p> <p>DG Set will be operated only in case of power failure.</p> | | |
| 4. | The applicant shall maintain good housekeeping. | Proper housekeeping practices are followed. | | |

| Sr. | Conditions | Compliance | ☑ | P |
|-----|---|--|---|---|
| 5. | The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste. | Noted and is being complied with. | | |
| 6. | The applicant shall not change or alter the quantity, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipment provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board. | No changes in emissions/effluent will be brought about without requisite permissions. | | |
| 7. | The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises. | Noted and is being complied with. | | |
| 8. | The industry shall submit quarterly statement in respect of industries obligations towards consent and pollution control compliance duly supported with documentary evidences (format can be downloaded from MPCB official site) | Agreed and will be complied with. | | |
| 9. | The industry shall submit official e-mail address and any change will be duly informed to MPCB. | Noted | | |
| 10. | The industry shall achieve the National Ambient Air Quality Standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated 18.11.2009 as amended. | Air sampling and testing is carried out by a MoEF&CC approved lab. The parameters are within the prescribed limits. Copy of monitoring report has been attached. | | |
| 11. | The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto. | Noted | | |
| 12. | The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof. | Agreed | | |
| 13. | The PP shall provide personal protection equipment as per norms of the Factory Act | Personal Protection Equipment's are provided | | |

| Sr. | Conditions | Compliance | ☑ | P |
|-----|---|---|---|---|
| | | to the workers wherever required. | | |
| 14. | Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. | Regular air quality monitoring has been carried out by MoEF&CC approved lab. Copy of monitoring report has been attached. | ✓ | |
| 15. | Whenever due to any accident or other unforeseen act or even emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In ae of failure of pollution control equipments, the production process connected to it shall be stopped. | Agreed | | |
| 16. | The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, consent | D.G set of 500 kva capacity has been provided on the site for back up in case of power failure. | | |
| 17. | The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M& TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for landfilling and cannot be recycled/ reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment. | Agreed | | |
| 18. | An inspection book shall be opened and made available to the Board’s officers during their visit to the applicant. | Agreed. Inspection book will be made available to the Board’s officer during the site visit. | | |
| 19. | Industry shall strictly comply with water (P&PC) Act, 1974, Air (P&CP) Act 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in). | PP will comply with water (P&PC) Act, 1974, Air (P&CP) Act 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 | | |
| 20. | Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal | Separate drainage system has been provided and no external effluent is admitted into the collection system | | |

| Sr. | Conditions | Compliance | ☑ | P |
|-----|--|--|---|---|
| | manholes. No effluent shall find its way other than in designed and provided collection system. | | | |
| 21. | Neither storm water nor discharge from other premises shall be allowed to mix the effluent from the factory. | Wastewater and storm water are not allowed to mix with the effluent. | | |
| 22. | The industry should not cause any nuisance in surrounding area. | Agreed. The industry will not cause any nuisance in surrounding area. | | |
| 23. | The industry shall take adequate measure for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 db(A) during day time and 70 db(A) during night time. Day time is reckoned in between 6 a.m and 10 p.m and night time is reckoned between 10 p.m and 6 a.m. | The ambient noise levels will be monitored. Construction activities will not be carried out during night time. Efforts will be taken to reduce noise levels during construction phase. | | |
| 24. | The industry shall create the Environment Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation | An Environment Cell has been created which is responsible for implementing the Environment Management Plan on the project site. | | |
| 25. | The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources | Not applicable. | | |
| 26. | The industry should comply with the Hazardous and Other Wastes (M&TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20 (2) of Hazardous and other Wastes (M& TM) Rules, 2016 for the preceding year April to March in Form-IV by 30 th June of every year. | Form IV is regularly submitted by 30 th June of every year. | | |
| 27. | The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained. | Separate meters have been provided. | | |
| 28. | The applicant shall bring minimum 33% of the available open land under green coverage/plantation. The applicant shall submit a yearly statement by 30 th September every year on available open plot area, number of trees surviving as on 31 st March of the year and number of trees planted by September end. | Green Belt of has been provided with nearly 2000 nos. trees planted. Trees have been planted as per the CPCB guidelines. | | |
| 29. | The Board reserves its right to review plans, specifications or other data relating to plant setup for the treatment of waterworks for purification | Noted | | |

| Sr. | Conditions | Compliance | ☑ | P |
|-----|--|--------------------------------|---|---|
| | thereof & the system for disposal of sewage or trade effluent or in connection with the grant of any consent conditions. | | | |
| 30. | The firm shall submit to this office, the 30 th day of September every year, the Environment Statement Report for the financial year ending 31 st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules,1992. | Form V is submitted regularly. | | |
| 31. | The Applicant shall obtain necessary prior permissions for providing additional control equipment with necessary specification and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment. | Noted | | |
| 32. | The Board reserves its rights to vary all or any of the conditions in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary). | Noted | | |
| 33. | The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents. air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay the Board for the services rendered in this behalf. | Agreed | | |

ANNEXURE -I
Previous Acknowledgment Copy



5th December, 2022

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

Subject: Half-yearly Compliance Report:
April 2022 to September 2022

Project PNP Maritime Services Private Limited.
Construction of minor jetty at Dharmatar Creek, Project at
District Raigad.

EC No. F. No.10-70/2016-IA-III on dated 20.08.2020

Dear Sir,

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

Thanking you,
Yours faithfully,
For PNP Maritime Services Private Limited.



Project Proponent

Enclosure: A hard copy of the compliance and monitoring report

- CC copy to:**
1. Regional officer, Maharashtra Pollution Control Board, S.R.O. Raigad I
 2. Member Secretary, Maharashtra Pollution Control Board, Sion, Mumbai
 3. Member Secretary, State Environmental Impact Assessment Authority, Govt. of Maharashtra, Mumbai

Maharashtra Pollution Control Board
Kalyanapur Point, 2nd Floor, Sion Circle,
Opp. S. K. P. Bldg. (East),
Sion, Mumbai - 400 022
Tel: 2201233, 22010781
Website: www.mppcb.org

dharmatar
7/11/22

PNP MARITIME SERVICES PVT. LTD.

Regd. Office: A-5, Ionic, 18, Arthur Bunder Road, Colaba, Mumbai 400 005, India.

Admin. Office: 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai 400 001.

Tel.: 2288 4536/37/38/39/40 Fax: 2288 4535

Port Office: PNP Port Dharmatar at Shahabai, Dist. Raigad. Tel: +91-2143-320766,

Website: www.pnpport.com CIN: U63090MH1999PTC121461

ANNEXURE -II

Site photographs

Project Site



Drinking water facility



First Aid Box



Water Tank



ANNEXURE -III Advertisement in Newspaper

Pak ex-embassy to Indonesia sold illegally
 The Pak ex-embassy building in Jakarta, Indonesia, was sold to a private company for a price of 1.5 billion dollars, a deal that has caused a stir in the diplomatic circles of both countries.

US braces for storm Marco, Laura
 The US coast guard is on high alert for two tropical storms, Marco and Laura, which are expected to hit the Gulf of Mexico coast in the next few days.

Finland PM to head her party too
 The Finnish Prime Minister, Sanna Marin, is set to lead her party in the upcoming parliamentary elections, a move that has been widely anticipated.

"PUBLIC WORKS DEPARTMENT" (GOVT. OF MAHARASHTRA)
 The Maharashtra Government is seeking bids for the construction of a new road network in the Mumbai Metropolitan Region. The project is estimated to cost 1000 crores.

PNP MARITIME SERVICES PVT. LTD.
 The company provides comprehensive maritime services, including crew management, vessel operations, and port services. It is a leading player in the Indian maritime industry.

English Newspaper Advertisement: 24.08.2020

मुंबईत रुग्ण बरे होण्याचे प्रमाण ८१ टक्क्यांवर
 रुग्ण तपटीचा कालावधी ८५ दिवसांवर

Mahindra FINANCE
 FIXED DEPOSIT
 CREDIT RATING - FAAA STABLE
 INDICATES HIGHEST SAFETY

| Term | Interest Rate |
|-----------|---------------|
| 12 Months | 7.50% |
| 24 Months | 8.00% |
| 36 Months | 8.50% |
| 48 Months | 9.00% |
| 60 Months | 9.50% |

Individual Finance Limited
 A subsidiary of Mahindra Finance, offering various financial products and services.

Advertisement Text (Red Box):
 The text in the red box discusses the company's commitment to providing high-quality financial services and its strong financial performance.

Marathi Newspaper Advertisement: 24.08.2020

ANNEXURE -IV
Environment Clearance Letter

F.No. 10-70/2016-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 20th August, 2020

To,

M/s PNP Maritime Services Pvt Ltd,
(Kind attention: Shri Siddharth Ghosh, DGM - Commercial & Operation)
A-5, Ionic, 18 Arthur Bunder Road, Colaba,
Mumbai - 400005, Maharashtra
E- Mail: pnpport@gmail.com

Subject: Expansion and Modernization of existing PNP Port at Gut No. 346, Dharamtar Creek, Village Shahbaj, District Raigad, Maharashtra by M/s PNP Maritime Services Pvt Ltd - Environmental and CRZ Clearance - reg.

Sir,

This has reference to your online Proposal No. IA/MH/MIS/59562/2016 dated 12 September, 2019, submitted to this Ministry for grant of Environmental and CRZ Clearance in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 2011, under the Environment (Protection), Act, 1986.

2. The proposal for 'Expansion and Modernization of existing PNP Port at Gut No. 346, Dharamtar Creek, Village Shahbaj, District Raigad, Maharashtra by M/s PNP Maritime Services Pvt Ltd was considered by the Expert Appraisal Committee (Infra-2) in the Ministry in its 46th meeting held during 25-26 November, 2019 and 53rd meeting held during 23-24 July, 2020.

3. The project/activity is covered under category 'A' of item 7 (e) i.e. 'Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

4. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above said EAC meeting, are reported to be as under:-

- (i) Environmental and CRZ Clearance for the Expansion and Modernisation of Existing PNP port located at Dharamtar Creek, village Shahbaj, Taluka Alibaug, District Raigad, Maharashtra. (18°41'59" N latitude and 73°01'33" E longitude)
- (ii) PNP port is located on the western bank of Amba River (i.e. Dharamtar creek) about 25 nautical miles (nm) from Mumbai Port Lighterage area and 18 nm from JNPT (Jawaharlal Nehru Port Trust) Port. The Port was given Environmental Clearance in 2003 from MoEF vide letter No. J-16011/38/2001-IA III dated 06 October, 2003.
- (iii) PNP port (All weather port) has existing facility spread over an area of 60 ha with four (4) working jetties performing Lighterage operations and handles upto 4 MTPA of cargo viz. Coal, Sulphur, Clinker, Rock Phosphate, Bauxite, Steel Coils etc. The expansion along with the modernisation of the port is planned and that will handle cargo up to 19 MTPA. The proposed development comprises eight (8) bulk berths, two (2) Iron & steel product berths, four (4) berths for handling liquid cargo and 200 m berth for container cargo. The proposed development will be over an area of 195 ha (Including existing 60 ha area).
- (iv) Maintenance dredging is proposed to create navigational channel near berthing areas from the main channel (in front of berths only to facilitate new barges i.e. up to



5.3 m CD). The dredged volume is estimated at berthing areas is about 1 Mm³. The material to be dredged is of silty sand and clay material and that will be utilized for site preparation within the port area (Non-CRZ areas).

- (v) Tabular statement indicating details of (a) existing facilities as per existing EC obtained; (b) proposed additional facilities along with modernisation and expansion:

| | Existing facilities | Proposed expansion facilities |
|-----------------------------|--|--|
| Area of Land available | 60 ha | 135 ha (In addition to existing 60 ha area) |
| No. of jetties/ berths | Four (4) Nos. | eight (8) bulk berths, two (2) iron & steel product berths, four (4) berths for handling liquid cargo and 200 m berth for container cargo |
| Water frontage available | 2000 m | |
| Cargo handling capacity | <5 MTPA | 19 MTPA (including existing 5 MTPA capacity) |
| Type of cargo being handled | Coal, Sulphur, Clinker, Rock Phosphate, Bauxite, Steel Coils | Coal, Sulphur, Bulk Cargo, Break Bulk cargo, Agro commodities, Clinker, Dolomite, Limestone, Pyroxenite, Iron ore Cement, Slag, Rock Phosphate, Bauxite, Steel Coils, Bitumen, Timber, Tiles, Mill scales, Cotton, Liquid cargo (Non-Hazardous) and Port Based Industries etc. |
| Depth at berthing areas | - | (-) 5.3 m CD to accommodate the new barges (In front of berths only) |
| Dredging quantity | - | 1 Mm ³ |
| Dredge quantity disposal | - | Utilized for site preparation within the port area (Non-CRZ areas) |

- (vi) During construction phase, total water requirement is expected to be 60 KLD which will be met by tanker water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (vii) During operational phase, total water demand of the project is expected to be 73 KLD (33 KLD domestic + 40 KLD dust suppression measures) and same will be met by fresh water from MIDC water supply, Tanker water and recycled water from STP. Wastewater generated (31 KLD) uses will be treated in STP of 50 KLD capacity. 15 KLD of treated wastewater will be recycled for flushing. About 16 KLD will be used for dust suppression and green belt within the premises.
- (viii) The quantity of municipal solid waste generated from canteen and administrative areas is estimated at about 148 kg/day, of which the biodegradable waste (89 kg/day) will be composted using vermin composting pits and will be used as manure. The non-biodegradable waste generated (59 kg/day) will be handed over to authorized local vendor.
- (ix) The total power requirement during construction phase is 2000 kVA and will be met from MSEDCL & DG set and Total power requirement during operation phase is 6.7 MW and will be met from MSEDCL & DG set for emergency backup.
- (x) Rainwater harvesting ponds will be constructed at strategic locations. Being port activity, Energy saving is achieved through efficient lights like LED's
- (xi) Parking facility for 200 four wheelers are proposed to be provided and provision of 550 truck Parking are made.
- (xii) Site is not located within 10 km of any Eco Sensitive areas
- (xiii) Terms of Reference (ToR) for the project was granted by MoEF&CC vide letter No. 10-70/2016-IA-III dated 22 March, 2018.
- (xiv) Public hearing was conducted by Maharashtra State Pollution Control Board (MPCB) on 25 February, 2019 at Collector office, District Raigad, Maharashtra.

(Signature)

- (xv) Maharashtra State Coastal Zone Management Authority (MCZMA) has recommended the project for CRZ Clearance vide Letter No. CRZ-2017/CR-323/TC 4 dated 24 January, 2019.
- (xvi) Investment/Cost of the project is Rs. 1,058.34 Crore.
- (xvii) The employment potential: The employment potential during the construction phase of the port is estimated as 450 to 500 persons. The expected direct employment during operation phase of the project will be 650 persons. Apart from this, there will be around 300 nos. of people for indirect employment.
- (xviii) Benefit of the project: The proposed expansion of port/ terminal will give more employment/ opportunities for the local people. Other benefits include generation of direct and indirect employment to the local people and surrounding areas. The expansion of Port will be a boon for the development of the region. It will also minimize the traffic load from the Mumbai Port Trust. Due to its location as it offers seamless road, rail connectivity for the transport of materials/ cargo to various hinterland.

5. The project proponent informed the EAC that PNP Maritime Services Pvt. Ltd. is proposing Expansion and Modernization of existing PNP Port at Dharamtar Creek, village Shahabaj, Tehsil Alibaug, District Raigad, Maharashtra. The existing port has received Environmental Clearance in 2003 from MoEF vide letter No. J-16011/38/2001-IA III dated 06.10.2003. At present, Port is handling approx. 4 MTPA of cargo. PNP proposes to augment the port facilities by modernizing/ mechanizing and expanding port capacity. Proposed expansion will envisage increase in cargo handling capacity up to 19 MTPA along with modernizing/ mechanizing of existing port. The Maharashtra Maritime Board (MMB) has approved water frontage of 1,000 m on 18 August, 2008 and additional 1,000 m on 29 March, 2012. The project has received the ToR from MoEF&CC vide letter no. 10-70/2016-IA-III dated 22 March, 2018. MCZMA has recommended the project from CRZ point of view to MoEF&CC dated 24 January, 2019.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Maharashtra State Pollution Control Board on 05 April, 2019. The issues were raised regarding increase in pollution due to the coal, affect on the local agriculture fields and ill-effects on the health of local people, effect the passenger services between Alibaug to Pen due to increase in usage of railway line and job opportunities as well as various court case pending against Project. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. The EAC also deliberated on the certified compliance report letter No. 6-12/2003(ENV)/4664 dated 10 December, 2018 issued by the MoEF&CC's Regional Office (WCZ), Nagpur. As per Compliance report, "it was observed that project is in operation phase. Coal Cement and Steel Coils are being handled at the port. No liquid cargo is being handled at the project. No trade effluent is being generated.

6. In the 53rd meeting held during 23-24 July, 2020, the project proponent informed the EAC that as per the observation of EAC in its previous meeting, action taken report for non-compliance and partially compliance EC conditions was submitted to Regional Office of MoEF&CC vide letter dated 22.01.2020. The Regional Office of MoEF&CC (WCZ) at Nagpur has forwarded the same to the Ministry vide letter 6-12/2003(ENV)/6316 dated 02 March, 2020. The EAC noted that the project proponent has submitted Oil Spill Contingency Plan and point wise reply on the observations of Conservation Action Trust (CAT). The representation received just before this meeting was also shared with project proponent. In this context, project proponent has submitted point wise reply to the Committee vide letter dated 23 July, 2020. The EAC found that the PP has denied all the allegations and confirmed that no mangroves were cut/ destroyed during construction or operation phase of the project. The PP also referred to Hon'ble NGT's ruling in Application No. 95/2014 (WZ) dated. 22 September, 2017. It was also confirmed that that they have not proposed any reclamation in the project and the expansion in mangrove and mangrove buffer area. PP has

submitted that they are operating the port facility as per the permission granted by various authorities and they do not find any merit in allegations made against the project.

7. The EAC in its 53rd meeting held during 23-24 July, 2020, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04 January, 2019 for the said project/activity. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental and CRZ Clearance to the project 'Expansion and Modernization of existing PNP Port' at Gut No. 346, Dharamtar Creek, Village Shahbaj, District Raigad, Maharashtra by M/s PNP Maritime Services Pvt Ltd, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon and CRZ Notification, 2011, and subject to the specific and general conditions as under:-


A. Specific Conditions:

- (i) The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes as applicable to the project.
- (ii) The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report, submissions made during Public Hearing and also that have been made during their presentation to EAC.
- (iii) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (iv) All the recommendations and conditions specified by the Maharashtra State Coastal Zone Management Authority (MCZMA) vide letter No. CRZ-2017/CR-323/TC 4 dated 24 January, 2019 shall be complied with.
- (v) The project proponent shall comply with the air pollution mitigation measures as submitted.
- (vi) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase.
- (vii) No underwater blasting is permitted.
- (viii) Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging. No removal of silt curtain unless baseline values are achieved.
- (ix) Wherever possible, dredged material shall be used for bank nourishment. Otherwise, deposit the dredged material within the port premises in non-CRZ areas for land development in a manner that it does not enter the channel. With the enhanced quantities, the impact of dumping on the estuarine environment should be studied and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (x) An independent monitoring be carried out by any Government Agency/Institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line changes should be studied by the PP and



necessary mitigation measures be taken in case any adverse impact is observed. The details shall be submitted along with the six-monthly monitoring report.

- (xi) Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit.
- (xii) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components as part of the management plan. Marine ecology shall be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity.
- (xiii) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit.
- (xiv) The fresh water requirement of 58 KLD shall be met from MIDC water supply scheme.
- (xv) Sewage generated will be treated in STP of 50 KLD capacity. The treated water will be used for flushing, gardening and dust suppression within the port premises.
- (xvi) A continuous monitoring programme covering all the seasons on various aspects of the estuarine environs need to be undertaken by a competent organization available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters along with PHC coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources.
- (xvii) Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC.
- (xviii) The material recovered from the cutting activity shall be used for filling low-lying areas within the project boundaries. The actions shall be in accordance with proposed landscape planning concepts to minimize major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network.
- (xix) Suitable preventive measures be taken to trap spillage of fuel / engine oil and lubricants from the construction site. Measures should be taken to contain, control and recover the accidental spills of fuel during cargo handling.
- (xx) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xxi) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- (xxii) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.
- (xxiii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xxiv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01 May, 2018, project proponent has proposed that an amount of Rs. 2.65 Crores (0.25% of the project cost) shall be earmarked under Corporate Environment Responsibility



(CER) Plan for the activities such as Health, Water supply, Sanitation, Road development, Solar lights in nearby areas and Education etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

B. Standard Conditions:

I. Statutory compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable. No dredging is allowed in protected habitat areas without prior permission from NBWL.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
- iv. Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- v. All the recommendations and conditions specified by State Coastal Zone Management Authority for the project shall be complied with.
- vi. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- vii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- viii. All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction
- ix. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- x. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.

II. Air quality monitoring and preservation:

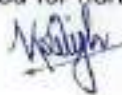
- i. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the project area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.



- ii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
- iii. Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
- iv. Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
- v. The Vessels shall comply the emission norms prescribed from time to time.
- vi. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- vii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

III. Water quality monitoring and preservation:

- i. The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- ii. Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
- iii. No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
- iv. Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- v. The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
- vi. Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- vii. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- viii. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.



- ix. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- x. No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
- xi. All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.

IV. Noise monitoring and prevention:

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- iv. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures:

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

VI. Waste management:

- i. Dredged material shall be disposed safely in the designated areas.
- ii. Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- iii. Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- iv. The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- v. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- vi. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- vii. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
- viii. Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed.

Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered

VII. Green Belt:

- i. Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- ii. Top soil shall be separately stored and used in the development of green belt.

VIII. Marine Ecology:

- i. Dredging shall not be carried out during the fish breeding and spawning seasons.
- ii. Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
- iii. The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
- iv. While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- v. A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.
- vi. Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
- vii. The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

IX. Public hearing and Human health issues:

- i. The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
- ii. Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
- iii. In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.
- iv. Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
- v. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

- vi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- vii. Occupational health surveillance of the workers shall be done on a regular basis.

X. Corporate Environment Responsibility:

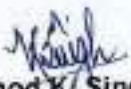
- i. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- ii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iii. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- iv. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

XI. Miscellaneous:

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The criteria pollutant levels namely; PM_{2.5}, PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned

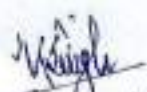


- authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
 - xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
8. This issues with the approval of the Competent Authority.


(Dr. Vinod K. Singh)
Scientist E

Copy to:

- 1) The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032.
- 2) The APCCF (C), MoEF&CC, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai - 400 022.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board/MoEF&CC website.


(Dr. Vinod K. Singh)
Scientist E

ANNEXURE -V
Consent to Establish



MAHARASHTRA POLLUTION CONTROL BOARD

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



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

RED/L.S.I (R46)

No:- Format1.0/CAC/UAN No.0000105351/CE - 2107000798

Date: 14/07/2024

To,
PNP Maritime Services Pvt Ltd,
Old Survey 247 / New Gut No. 346, PNP Port,
Dharmatar Creek,
Alibag, Dist; Raigad.



Your Service is Our Duty

Sub: Consent to Establish for expansion i.e. handling of additional cargoes under red category

- Ref:**
1. Consent to operate granted by the Board to the port vide No.CC/UAN no.103714/CR-2104001333 Dated 27.04.2021 valid up to 31.12.2025.
 2. Environmental Clearance granted by MOEF, GOI, vide no. J-16011/38/2001-IA-III Dated 06.10.2003
 3. Environmental Clearance granted to the port for expansion activity by MOEFCC, GOI vide no.10-70/2016-IA-III Dated 20.08.2020
 4. The minutes of the CAC meeting held on 17.03.2021

Your application No.MPCB-CONSENT-0000105351 Dated 29.12.2020

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

1. The consent to establish is granted for a period up to commissioning of the unit or up to 5 year whichever is earlier.
2. The capital investment of the project is Rs.1061.56 Crs. (As per C.A Certificate submitted by industry Existing CI is-Rs. 3.21 Crs + Expansion/Increase in C.I. - Rs. 1058.35Crs)
3. Consent is valid for handling of:

| Sr No | Product | Maximum Quantity | UOM |
|-----------|---|------------------|------|
| Products: | | | |
| 1 | Jetty: For Cargo Handling of Coal, Sulphur, Bulk Cargo, Break Bulk cargo, Agro commodities, Clinker, Dolomite, Limestone, Pyroxenite, Iron ore Cement, Slag, Rock Phosphate, Bauxite, Steel Coils, Bitumen, Timber, Tiles, Mill scales, Cotton, Liquid cargo (Non-Hazardous) and Port Based Industries etc. | 14 | MT/A |



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

| Sr No | Description | Permitted (in CMD) | Standards to | Disposal Path |
|-------|-------------------|--------------------|-------------------|-----------------------|
| 1. | Trade effluent | 0 | As per Schedule-I | Not Applicable |
| 2. | Domestic effluent | 31 | As per Schedule-I | On land for gardening |

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

| Sr No. | Stack No. | Description of stack / source | Number of Stack | Standards to be achieved |
|--------|-----------|-------------------------------|-----------------|--------------------------|
| 1 | S-1 | DG set [80 KVA] | 1 | As per Schedule -II |
| 2 | S-2 | DG set [500 KVA] | 1 | As per Schedule -II |
| 3 | S-3 | DG set [160 KVA] | 1 | As per Schedule -II |
| 4 | S-4 | DG set [30 KVA] | 1 | As per Schedule -II |
| 5 | S-5 | DG set [2000 KVA] | 1 | As per Schedule -II |

6. **Non-Hazardous Wastes:**

| Sr No | Type of Waste | Quantity | UoM | Treatment | Disposal |
|-------|-------------------------|----------|--------|------------|--------------------------|
| 1 | Biodegradable waste | 89 | Kg/Day | Composting | Used as manure |
| 2 | Non Biodegradable waste | 59 | Kg/Day | Sale | Sale to authorized party |

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

| Sr No | Category No./ Type | Quantity | UoM | Treatment | Disposal |
|-------|---------------------------------------|----------|------|-----------|------------------------------------|
| 1 | 5.2 Wastes or residues containing oil | 500 | MT/A | Recycle | Sale to authorised party / CHWTSDF |

8. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
10. This consent is issued pursuant to the decision of the 23rd Consent Appraisal Committee Meeting held on 17.03.2021.
11. The applicant shall comply with the conditions of the Environmental Clearance granted by MOEF, GOI, vide letter No. J-16011/38/2001-IA-III dated 06.10.2003.
12. The applicant shall comply with the conditions of the Environmental Clearance granted by MOEF, GOI, vide letter No. F.No.10-70/2016-IA-III dated 20.08.2020..
13. The applicant shall submit Environmental Management Plan in the Board.
14. The applicant shall submit BG of Rs.25 Lakhs towards compliances of consent conditions and Environmental Clearances conditions.
15. The waste generated due to proposed activity should not be disposed off in CRZ area.
16. No chemical products should be stored in the CRZ area except those permissible as per annexure of the CRZ Notification -2011 and Amendments in thereto.



Maharashtra Pollution Control Board

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17. The applicant shall prepare disaster management plan and shall be updated time to time.
18. The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before actual commencement of the Unit/Activity. (Establish)

For and on behalf of the
Maharashtra Pollution Control Board.

(Ashok Shingare IAS),
Member Secretary

Received Consent fee of -

| Sr.No | Amount(Rs.) | Transaction/DR.No. | Date | Transaction Type |
|-------|-------------|--------------------|------------|------------------|
| 1 | 2116700.00 | TXN2101000026 | 01/01/2021 | Online Payment |

Copy to:

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





SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1. A) Generation - As per your application the treated effluent generation is Nil.
B) Treatment - NA
C) Disposal - NA
2. A) As per your application, you have provided Sewage Treatment Plant of designed capacity 50 CMD for the treatment of 31 CMD of sewage.
B) The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

| Sr.No | Parameters | Standards (mg/l) | |
|-------|------------------------|------------------|---------------|
| 1 | pH | Not to exceed | 5.5 to 9.0 |
| 2 | BOD 3 days 27°C | Not to exceed | 10 mg/l |
| 3 | COD | Not to exceed | 50 mg/l |
| 4 | Total Suspended Solids | Not to exceed | 20 mg/l |
| 5 | NH4 N | Not to exceed | 5 mg/l |
| 6 | N- Total | Not to exceed | 10 mg/l |
| 7 | Fecal Coliform | Not to exceed | Less than 100 |

- C) The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, sewage shall find its way outside from port premises.
3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

| Sr. No. | Purpose for water consumed | Water consumption quantity (CMD) |
|---------|--|----------------------------------|
| 1. | Industrial Cooling, spraying in mine pits or boiler feed | 40.00 |
| 2. | Domestic purpose | 33.00 |
| 3. | Processing whereby water gets polluted & pollutants are easily biodegradable | 0.00 |



| Sr. No. | Purpose for water consumed | Water consumption quantity (CMD) |
|---------|--|----------------------------------|
| 4. | Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic | 0.00 |
| 5. | Gardening | 0 |

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

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

| Stack No. | Source | APC System provided/proposed | Stack Height(In mtr) | Type of Fuel | Sulphur Content(In %) | Pollutant Standard | |
|-----------|--------------------|------------------------------|----------------------|--------------------|-----------------------|--------------------|--------------|
| S-1 | DG set [80 KVA] | Acoustic Enclosure | 3.00 | Diesel 6.25 Kg/Hr | 1 | SO2 | 3.0 Kg/Day |
| | | | | | | Other | - |
| | | | | | | Other | - |
| S-2 | DG set [500 KVA] | Acoustic Enclosure | 5.00 | Diesel 41.66 Kg/Hr | 1 | SO2 | 19.99 Kg/Day |
| | | | | | | Other | - |
| | | | | | | Other | - |
| S-3 | DG set [160 KVA] | Acoustic Enclosure | 3.00 | Diesel 12.5 Kg/Hr | 1 | SO2 | 6 Kg/Day |
| | | | | | | Other | - |
| | | | | | | Other | - |
| S-4 | DG set [30 KVA] | Acoustic Enclosure | 3.00 | Diesel 2.08 Kg/Hr | 1 | SO2 | 1.0 Kg/Day |
| | | | | | | Other | - |
| | | | | | | Other | - |
| S-5 | DG set [2000 KVA] | Acoustic Enclosure | 5.00 | Diesel 400 Kg/Hr | 1 | SO2 | 192 Kg/Day |
| | | | | | | Other | - |
| | | | | | | Other | - |



| Stack No. | Source | APC System provided/proposed | Stack Height(in mtr) | Type of Fuel | Sulphur Content(in %) | Pollutant | Standard |
|-----------|-----------------|------------------------------|----------------------|--------------|-----------------------|--|----------|
| --- | Coal stock yard | | 0.00 | - | - | SPM [The difference in the value of suspended particulate matter, delta measured between 25 and 30 meters from the coal stock yard in the downward and leeward wind direction] not exceed to 150 µg/m ³ | - |
| | | | | | | Other | - |
| | | | | | | Other | - |

- The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.
- The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
- The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
- The trucks will be covered with tarpaulin sheets to prevent coal dust from spilling /creating air pollution nuisance during coal transportation.
- To mitigate the dust emission during loading of cargos such as coal, 1] Mix of truck movement and conveyor system shall be considered for cargo movement between the barges to storage area.2] Grab unloaders or clamp shell buckets shall be provided to reduce dust, spillage, handling loss etc. during cargo loading on trucks.
- During the cargo handling the dust shall be controlled by using water foggers., wind screens shall be used to reduce fugitive emission, stock piles, excavated earthen materials etc. shall be managed with water sprinkling to avoid dust being airborne from the specific site.
- PP shall implement Traffic Management Plan and recommendations as per the PNP Port Expansion Traffic Impact Study Report of October -2018.
- The PP shall ensure that fugitive emission from the activity are control so as to maintain clean and safe environment in and around the port premises.
- All entry point , internal roads and loading /unloading areas must be made road worthy for movement of heavy vehicles by using low permeability material (Concrete or bitumen) and be cleaned regularly to minimize potential for dust generation and off site impact
- PP shall implement Traffic Management Plan and recommendations as per the PNP Port Expansion Traffic Impact Study Report of October -2018.



12. The coal from jetty shall be removed using close system to control dust / fugitive emissions and shall meet the standards that may be prescribed. The side wall of 5 meters height shall be provided and for the dust suppression, water sprinkling arrangement of water pressure of minimum 4 Kg/cm shall be maintained during loading of coal on trucks at coal storage yard. The entire operation of coal handling shall be done with operating dust and wind suppression equipment's and monitoring of ambient air quality as per guidelines of the Board. The handling of coal shall be done as per the Environmentally Sound management. The qty of coal to be handled will be assessed based on the stockyard size, maximum permissible safe height, dwell time, mode of evacuation and the capacity of roads to evacuate the traffic induced. PP shall submit designed details of pollution control system proposed for coal yard.
13. PP shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PC-L dated. 18.11.2009 as amended.

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

| Sr. No | Consent (C2E/C2O/C2R) | Amt of BG Imposed | Submission Period | Purpose of BG | Compliance Period | Validity Date |
|--------|---|-------------------|-------------------|---|-------------------|---------------|
| 1 | Consent to Establish for expansion,i.e. Handling of additional cargoes from 5 MTPA capacity to 19 MTPA capacity | Rs.25 Lakhs | 15 days | Towards compliances of consent to Establish conditions and conditions of Environmental Clearances | Continuous | 30.04.2026 |

BG Forfeiture History

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

BG Return details

| Srno. | Consent (C2E/C2O/C2R) | BG Imposed | Purpose of BG | Amount of BG Returned |
|-------|-----------------------|------------|---------------|-----------------------|
| NA | | | | |

**SCHEDULE-IV
General Conditions:**

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
 - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.



Maharashtra Pollution Control Board

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- b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
 5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
 6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
 7. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
 8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
 9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
 10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
 11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
 12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
 13. The PP shall provide personal protection equipment as per norms of Factory Act
 14. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.



Maharashtra Pollution Control Board

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15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and (these shall be painted/ displayed to facilitate identification.
26. The industry should comply with the Hazardous and Other Wastes (M & T¹) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-V by 30th June of every year.
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.



28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

For and on behalf of the
Maharashtra Pollution Control Board.




(Ashok Shingare IAS),
Member Secretary

ANNEXURE -VI
Consent to Operate



MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24044532/4024068/4023516
Website: <http://mpcb.gov.in>
Email: jdwater@mpcb.gov.in



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

RED/S.S.I (R46)

No:- Format1.0/CC/UAN No.0000103714/CR 2104001333

Date: 27/04/2021

To,
M/s. PNP Maritime Services Pvt. Ltd.
Old Survey 247 / New Gut No. 346, PNP Port,
Dharmatar Creek
Tal: Alibag, Dist: Raigad.



Your Service is Our Duty

Sub: Renewal of Consent to Operate for Cargo terminal jetty project, in Red Category.

Ref: 1. Previous Consent to Operate for granted vide No. Bo/MPCB/RO(HQ)/RD-3231-16/CR/B-3912 dt. 19/03/2016 valid up to: 31/12/2020
2. Minutes of Consent Committee Meeting held on 01.02.2021, 12.02.2021 & 25.02.2021.

Your application No.MPCB-CONSENT-0000103714 Dated 07.12.2020

For: grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

- The consent to renewal is granted for a period up to 31/12/2025
- The capital investment of the project is Rs.73.66 Crs. (As per C.A Certificate submitted by industry Existing CI is-Rs. 3.21 Crs + Expansion/Increase in C.I. - Rs. 70.45 Crs)
- Consent is valid for handling of:

| Sr No | Product | Maximum Quantity | UOM |
|----------|--|------------------|------|
| Products | | | |
| 1 | Jetty: For Cargo handling. Handling of coal, sulphur, Rock Phosphate, Iron Ore, Bauxite and Edible Oil Cargo | 5 | MT/A |

The Consent is Valid for the operation of Jetty (100 Mtrs, North Side of the Nallah (North of Khochi) Dharamtar Creek

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

| Sr No | Description | Permitted (in CMD) | Standards to | Disposal Path |
|-------|-------------------|--------------------|-------------------|-----------------------|
| 1. | Trade effluent | 0 | As per Schedule-I | Not Applicable |
| 2. | Domestic effluent | 7.5 | As per Schedule-I | On land for gardening |



Maharashtra Pollution Control Board

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

| Sr No. | Stack No. | Description of stack / source | Number of Stack | Standards to be achieved |
|--------|----------------|-------------------------------|-----------------|--------------------------|
| 1 | Not Applicable | Not Applicable | 0 | As per Schedule -II |

6. Non-Hazardous Wastes:

| Sr No | Type of Waste | Quantity | UoM | Treatment | Disposal |
|-------|----------------|----------|--------|----------------|----------------|
| 1 | Not Applicable | 0 | --NA-- | Not Applicable | Not Applicable |

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

| Sr No | Category No./ Type | Quantity | UoM | Treatment | Disposal |
|-------|---------------------------------------|----------|------|---|---|
| 1 | 5.2 Wastes or residues containing oil | 500 | MT/A | Sale to authorized preprocessor/CHWTSDF | Sale to authorized preprocessor/CHWTSDF |

- 8 The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
- 9 This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
- 10 The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent. (Operate/Renewal)
- 11 The applicant shall comply with the conditions of the CRZ Clearance granted vide letter No.J-16011/38/2001-A-III dt: 06/10/2003
- 12 The applicant shall comply with the conditions of the Environmental Clearance & CRZ Clearance granted vide letter No. F.No. 10-70/2016-1A-III dt: 20/08/2020
- 13 Industry shall submit Bank Guarantee of Rs. 5 lakhs towards compliance of consent conditions & Conditions stipulated in Environmental clearance & CRZ clearance.

For and on behalf of the
Maharashtra Pollution Control Board.

(Ashok Shingare IAS),
Member Secretary

Received Consent fee of -

| Sr.No | Amount(Rs.) | Transaction/DR.No. | Date | Transaction Type |
|-------|-------------|--------------------|------------|------------------|
| 1 | 500000.00 | TXN2012000884 | 09/12/2020 | Online Payment |
| 2 | 100000.00 | TXN2103001403 | 12/03/2021 | Online Payment |

Copy to:

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



SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1. A) Generation - As per your application the treated effluent generation is Nil.
B) Treatment - NA
C) Disposal - NA
2. A) As per your application, you have provided Sewage Treatment Plant of designed capacity 10 CMD for the treatment of 7.5 CMD of sewage.
B) The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

| Sr.No | Parameters | Standards | |
|-------|----------------|---------------|---------------|
| 1 | pH | Not to exceed | 5.5-9.0 |
| 2 | BOD | Not to exceed | 10 |
| 3 | COD | Not to exceed | 50 |
| 4 | TSS | Not to exceed | 20 |
| 5 | NH4 N | Not to exceed | 5 |
| 6 | N-total | Not to exceed | 10 |
| 7 | Fecal Coliform | Not to exceed | Less than 100 |

- C) The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, sewage shall find its way for gardening / outside factory premises.
3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
 4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
 5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

| Sr. No. | Purpose for water consumed | Water consumption quantity (CMD) |
|---------|--|----------------------------------|
| 1. | Industrial Cooling, spraying in mine pits or boiler feed | 10.00 |
| 2. | Domestic purpose | 10.00 |
| 3. | Processing whereby water gets polluted & pollutants are easily biodegradable | 0.00 |



BG Forfeiture History

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

BG Return details

| Srno. | Consent (C2E/C2O/C2R) | BG Imposed | Purpose of BG | Amount of BG Returned |
|-------|-----------------------|------------|---------------|-----------------------|
| NA | | | | |

**SCHEDULE-IV
General Conditions:**

- The Energy source for lighting purpose shall preferably be LED based
- The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
- Conditions for D.G. Set
 - Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - D.G. Set shall be operated only in case of power failure.
 - The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
- The applicant shall maintain good housekeeping.
- The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
- The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
- The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.



Maharashtra Pollution Control Board

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8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
13. The PP shall provide personal protection equipment as per norms of Factory Act
14. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.



Maharashtra Pollution Control Board
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23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
26. The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

For and on behalf of the
Maharashtra Pollution Control Board.


(Ashok Shingare IAS).
Member Secretary

ANNEXURE -VII
Environment Monitoring Report

AMBIENT AIR QUALITY MONITORING REPORT

| | | |
|------------------------------|--|---|
| Sample/ Report No. | | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited, 2nd Floor, Lansdowne House Building, M.B. Marg, Near Regal Cinema, Apollo Bunder, Colaba, Mumbai - 400 001 | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Ambient Air | |
| Sampling Location | Near Custom Building | |
| Sampling Procedure | As per Method Reference | |

| Meteorological Data / Environmental Conditions | | | | | |
|---|-----------------------|--------------------------|-------------------------------|-------------------------|--------------------|
| Date | Average Wind velocity | Prominent Wind Direction | Relative Humidity (Max./Min.) | Temperature (Max./Min.) | Duration of Survey |
| 01/03/2023 | 19 | WNW | 55/43 | 34/23 | 24 Hours |
| 02/03/2023 | 6 | NNW | 44/32 | 34/24 | 24 Hours |
| 03/03/2023 | 3 | NE | 43/31 | 35/26 | 24 Hours |
| 04/03/2023 | 6 | NW | 45/33 | 34/24 | 24 Hours |
| 05/03/2023 | 8 | NE | 53/41 | 34/22 | 24 Hours |
| 06/03/2023 | 13 | ENE | 49/37 | 36/27 | 24 Hours |
| 07/03/2023 | 15 | NE | 46/34 | 35/22 | 24 Hours |
| 08/03/2023 | 12 | E | 49/37 | 34/21 | 24 Hours |
| 09/03/2023 | 15 | NE | 53/41 | 35/22 | 24 Hours |
| 10/03/2023 | 12 | NE | 40/28 | 35/23 | 24 Hours |
| 11/03/2023 | 9 | E | 44/32 | 36/25 | 24 Hours |
| 12/03/2023 | 12 | NW | 49/37 | 36/26 | 24 Hours |
| 13/03/2023 | 10 | NE | 53/41 | 35/28 | 24 Hours |
| 14/03/2023 | 4 | NNW | 52/40 | 35/26 | 24 Hours |
| 15/03/2023 | 19 | W | 59/47 | 34/26 | 24 Hours |

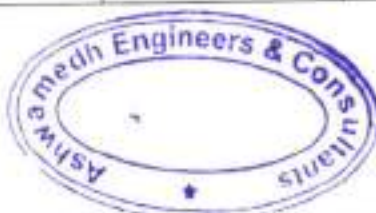
Note:

1. The result listed refer only to the tested sample(s) and applicable parameter (s).
2. This report is not to be reproduced except in full, without written approval of the laboratory.
3. Perishable samples will be disposed immediately after report dispatch.
4. Non-perishable samples will be stored for 15 days to one month after report dispatch or as per the regulatory norms.

| Meteorological Data / Environmental Conditions | | | | | |
|--|-----------------------|--------------------------|-------------------------------|-------------------------|--------------------|
| Date | Average Wind velocity | Prominent Wind Direction | Relative Humidity (Max./Min.) | Temperature (Max./Min.) | Duration of Survey |
| 16/03/2023 | 20 | W | 54/42 | 32/25 | 24 Hours |
| 17/03/2023 | 21 | NW | 59/47 | 32/24 | 24 Hours |
| 18/03/2023 | 14 | WNW | 57/45 | 31/24 | 24 Hours |
| 19/03/2023 | 10 | NE | 55/43 | 30/21 | 24 Hours |
| 20/03/2023 | 12 | WNW | 56/44 | 30/23 | 24 Hours |
| 21/03/2023 | 15 | W | 52/40 | 31/23 | 24 Hours |
| 22/03/2023 | 14 | WNW | 53/41 | 30/22 | 24 Hours |
| 23/03/2023 | 14 | WNW | 71/59 | 31/23 | 24 Hours |
| 24/03/2023 | 10 | NW | 59/47 | 30/22 | 24 Hours |
| 25/03/2023 | 9 | W | 55/43 | 31/23 | 24 Hours |
| 26/03/2023 | 12 | WNW | 56/44 | 31/24 | 24 Hours |
| 27/03/2023 | 16 | NW | 60/48 | 30/21 | 24 Hours |
| 28/03/2023 | 10 | W | 55/43 | 31/22 | 24 Hours |
| 29/03/2023 | 15 | NW | 56/44 | 30/21 | 24 Hours |
| 30/03/2023 | 8 | W | 67/55 | 31/21 | 24 Hours |
| 31/03/2023 | 12 | NW | 60/48 | 31/21 | 24 Hours |

Kavita Shewale

Kavita Shewale
 Section In-charge (Chemical)
 Reviewed & Authorised by



-----End of Report-----

Note:

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3. Perishable samples will be disposed immediately after report dispatch.
4. Non-perishable samples will be stored for 15 days to one month after report dispatch or as per the regulatory norms.

AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|---|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5108 | Report No. AA/03/23/5108 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM _{2.5} : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5882 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 30.1 | 80 | µg/m ³ | IS 5882 (Part 3): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 188 | 100 | µg/m ³ | IS 5882 (Part 2): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 126 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA) 3rd Ed. Method 41, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.49 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.43 | 5 | µg/m ³ | IS 5882 (Part 1): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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 Technical Manager (Chemical)
 Reviewed & Authorised by


| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5108 | Report No. AA/03/23/5108 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5109 | Report No. AA/03/23/5109 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing: Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.7 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 310 | 100 | µg/m ³ | IS 5182 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 134 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2002-13, Page No.15-2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 41, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.40 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 27/2002-13, Page no.16-2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2002-13, Page No.35-2003 |
| Benzene (C ₆ H ₆) | 1.83 | 5 | µg/m ³ | IS 5182 (Part 10) - 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.7 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/S109 | Report No. AA/03/23/S109 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
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End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5110 | Report No. AA/03/23/5110 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|-------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 582 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 582 (Part 3): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 303 | 100 | µg/m ³ | IS 582 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 112 | 60 | µg/m ³ | CPCB Guidelines, Volume I,35/2012-13, Page No.15.2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed. Method 401 Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.7 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I,35/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.17 | 5 | µg/m ³ | IS 582 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Technical Manager (Chemical)
Reviewed & Authorized by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5110 | Report No. AA/03/23/5110 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5111 | Report No. AA/03/23/5111 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 582 (Part 2): 2003 |
| Nitrogen Dioxide (NO ₂) | 29.8 | 80 | µg/m ³ | IS 582 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 347 | 100 | µg/m ³ | IS 582 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 140 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2002-03, Page No.5:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 40, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.2 |
| Carbon Monoxide (CO) | 1.38 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 27/2002-03, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2002-03, Page No.35: 2003 |
| Benzene (C ₆ H ₆) | 1.25 | 5 | µg/m ³ | IS 582 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.3 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5111 | Report No. AA/03/23/5111 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

Note:

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2. This report is not to be reproduced except in full, without written approval of the laboratory.
3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5112 | Report No. AA/03/23/5112 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 271 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 81 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15, 2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 41, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/E25/R-95/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.04 | 4 | mg/m ³ | CPCB Guidelines, Volume 1.37/2012-13, Page no.16, 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.35, 2003 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/E25/R-95/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/E25/R-95/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5112 | Report No. AA/03/23/5112 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5113 | Report No. AA/03/23/5113 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : 8ap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 582 (Part 2) 2003 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 582 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 356 | 100 | µg/m ³ | IS 582 (Part 73) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 128 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.15-2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ARMA), 3rd Ed., Method 411, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/080 a Compendium Method 10-316 3.7 |
| Carbon Monoxide (CO) | 1.13 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16-2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.35-2013 |
| Benzene (C ₆ H ₆) | 1.34 | 5 | µg/m ³ | IS 582 (Part 8) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12), 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/080 a Compendium Method 10-316 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/080 a Compendium Method 10-316 3.7 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5113 | Report No. AA/03/23/5113 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5114 | Report No. AA/03/23/5114 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

| Chemical Testing; Group: Atmospheric Pollution | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5882 (Part 7): 2008 |
| Nitrogen Dioxide (NO ₂) | 27 | 80 | µg/m ³ | IS 5882 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 315 | 100 | µg/m ³ | IS 5882 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 103 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15/2010 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 401 Page no. 403 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 8-31 6 3.2 |
| Carbon Monoxide (CO) | 1.25 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.25: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5882 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 8-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 8-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5114 | Report No. AA/03/23/5114 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5115 | Report No. AA/03/23/5115 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 5.2 | 60 | µg/m ³ | IS 5182 (Part 2): 2000 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 319 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 127 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.26/2002-03, Page No.15:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ARMA), 3rd Ed. Method 40, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 81-316.3.2 |
| Carbon Monoxide (CO) | 1.45 | 4 | mg/m ³ | CPCB Guidelines, Volume 1.37/2007-03, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.26/2002-03, Page No.35: 2003 |
| Benzene (C ₆ H ₆) | 1.35 | 5 | µg/m ³ | IS 5182 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 81-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 81-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5115

Report No. AA/03/23/5115

Report Date

10/03/2023


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End of Report

Note:

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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5116 | Report No. AA/03/23/5116 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 582 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 29.5 | 80 | µg/m ³ | IS 582 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 284 | 100 | µg/m ³ | IS 582 (Part 22): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 137 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No.5:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 411, Page no. 403-498 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.7 |
| Carbon Monoxide (CO) | 1.43 | 4 | mg/m ³ | CPCB Guidelines, Volume 1.37/2002-03, Page no.5: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2002-03, Page No.35: 2003 |
| Benzene (C ₆ H ₆) | 1.29 | 5 | µg/m ³ | IS 582 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 02): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-315.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5116 | Report No. AA/03/23/5116 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5117 | Report No. AA/03/23/5117 | Report Date | 10/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 02/03/2023 to 03/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 04/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 04/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 09/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 6 km/h | Wind Direction N-NW | Relative Humidity (Max./Min.): 44/32% | Temperature (Max./Min.): 34/24°C | Duration of Survey 24 h |
|---------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 582 (Part 7): 2003 |
| Nitrogen Dioxide (NO ₂) | 30.3 | 80 | µg/m ³ | IS 582 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 254 | 100 | µg/m ³ | IS 582 (Part 73): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 96 | 60 | µg/m ³ | CPCB Guideline, Volume 1.36/2012-13, Page No.15: 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA) 3rd Ed. Method 411, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-3116.3.2 |
| Carbon Monoxide (CO) | 0.81 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 582 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-3116.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-3116.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5117 | Report No. AA/03/23/5117 | Report Date | 10/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninal Soundankar
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Note:

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4. There are no additions to, deviations or exclusions from the method.



NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/5198 | Report No. N/03/23/5198 | Report Date | 09/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | As per PO No. PNP/March/2021- 2022/020 Dated 31.03.2022 | Date-Monitoring | 02/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
|------------------------------------|----------|--|---|---|
| A. Near Main Gate (PNP Port) | 09:00 | 73.4 | 72.5 | CPCB Protocol for Ambient Level Noise Monitoring July AEC/C/SAP/SAM/356/20 Issue no. 4 Issue date 03.04.2016 |
| | 21:00 | 67.3 | 66.4 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 72.7 | 71.2 | |
| | 21:10 | 66.2 | 65.6 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 71.6 | 70.4 | |
| | 21:20 | 65.4 | 64.3 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 72.8 | 71.6 | |
| | 21:30 | 66.7 | 65.2 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 73.4 | 72.3 | |
| | 21:40 | 67.5 | 66.7 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 73.2 | 72.2 | |
| | 21:50 | 67.4 | 66.6 | |
| G. Near Custom Building (PNP Port) | 10:00 | 71.5 | 70.4 | |
| | 22:00 | 65.2 | 64.6 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 72.3 | 71.5 | |
| | 22:10 | 66.5 | 65.4 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 73.6 | 72.6 | |
| | 22:20 | 67.3 | 66.4 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.4 | 70.3 | |
| | 23:30 | 65.2 | 64.6 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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End of Report

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- There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5233 | Report No. AA/03/23/5233 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5182 (Part 7): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5182 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 203 | 100 | µg/m ³ | IS 5182 (Part 73): 2008 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 136 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No. 15-2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed., Method 41, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/525/R-96/010 a Compendium Method 10-315.3.2 |
| Carbon Monoxide (CO) | 1.31 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no. 16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No. 35, 2013 |
| Benzene (C ₆ H ₆) | 1.25 | 5 | µg/m ³ | IS 5182 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/525/R-96/010 a Compendium Method 10-315.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/525/R-96/010 a Compendium Method 10-315.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5233

Report No. AA/03/23/5233

Report Date

16/03/2023

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End of Report



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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5234 | Report No. AA/03/23/5234 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 26.5 | 80 | µg/m ³ | IS 5182 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 316 | 100 | µg/m ³ | IS 5182 (Part 23) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 160 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-G, Page No.15-2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed., Method 41, Page no. 403-1986 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-32 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-G, Page no.16-2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-G, Page No.35-2013 |
| Benzene (C ₆ H ₆) | 1.20 | 5 | µg/m ³ | IS 5182 (Part II) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part II) : 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5234

Report No. AA/03/23/5234

Report Date

16/03/2023


Ninad Soundankar
Technical Manager (Chemical)
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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5235 | Report No. AA/03/23/5235 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5187 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 24.6 | 80 | µg/m ³ | IS 5187 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 1097 | 100 | µg/m ³ | IS 5187 (Part 20) 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 107 | 60 | µg/m ³ | CPCB Guideline, Volume 1:26/2017-13, Page No.15,2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed., Method 40, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.26 | 4 | mg/m ³ | CPCB Guideline, Volume 1: 37/2017-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guideline, Volume 1:36/2017-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.38 | 5 | µg/m ³ | IS 5187 (Part 10) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5187 (Part 12) : 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by

Sample ID : AA/03/23/5235

Report No. AA/03/23/5235

Report Date

16/03/2023


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5236 | Report No. AA/03/23/5236 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 5987 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.7 | 80 | µg/m ³ | IS 5987 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 321 | 100 | µg/m ³ | IS 5987 (Part 20): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 153 | 60 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 40, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.55 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2002-13, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.43 | 5 | µg/m ³ | IS 5982 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5236 | Report No. AA/03/23/5236 | Report Date | 16/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5237 | Report No. AA/03/23/5237 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|--|---------------------------|--|-------------------------------------|--|
| Parameter | Result | NAAQS# 2009 | Unit | Method |
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 5882 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.8 | 80 | µg/m ³ | IS 5882 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 240 | 100 | µg/m ³ | IS 5882 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 97 | 60 | µg/m ³ | CPCB Guideline, Volume 1:35/2012-G, Page No.5:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed, Method 411, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 81-315-32 |
| Carbon Monoxide (CO) | 1.20 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2007-G2, Page no.6: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:35/2012-G2, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.79 | 5 | µg/m ³ | IS 5882 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 81-315-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 81-315-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

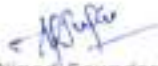

Ninad Soundankar
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Sample ID : AA/03/23/5237

Report No. AA/03/23/5237

Report Date

16/03/2023



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Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5238 | Report No. AA/03/23/5238 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|--|--------------------------|--|-------------------------------------|---|
| Parameter | Result | NAAQS# 2009 | Unit | Method |
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 5182 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 341 | 100 | µg/m ³ | IS 5182 (Part 7): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 135 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:35/2012-13, Page No:15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 41 Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 2.2 |
| Carbon Monoxide (CO) | 1.48 | 4 | mg/m ³ | CPCB Guidelines, Volume 1: 31/2012-13, Page no:16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No:35: 2013 |
| Benzene (C ₆ H ₆) | 1.27 | 5 | µg/m ³ | IS 5182 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 2.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 2.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5238

Report No. AA/03/23/5238

Report Date

16/03/2023


Ninad Soundankar
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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5239 | Report No. AA/03/23/5239 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|---|
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 330 | 100 | µg/m ³ | IS 5182 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 114 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed., Method 41, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-3.1.6 3.2 |
| Carbon Monoxide (CO) | 1.09 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.25: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-3.1.8 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-3.1.8 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5239 | Report No. AA/03/23/5239 | Report Date | 16/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
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Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5240 | Report No. AA/03/23/5240 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference. | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 987 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.7 | 80 | µg/m ³ | IS 987 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 350 | 100 | µg/m ³ | IS 987 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 139 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012 (I), Page No.15:2012 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed, Method 41, Page no. 403 :1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 8-316.3.2 |
| Carbon Monoxide (CO) | 1.36 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012 (I), Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012 (I), Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.23 | 5 | µg/m ³ | IS 987 (Part II): 2008 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 987 (Part II): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 8-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 8-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5240 | Report No. AA/03/23/5240 | Report Date | 16/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5241 | Report No. AA/03/23/5241 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 987 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.8 | 80 | µg/m ³ | IS 987 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 272 | 100 | µg/m ³ | IS 987 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 138 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.26/2012-G, Page No.15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed. Method 4H, Page no. 403 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/675/R-95/010 a Compendium Method 10-31 6 32 |
| Carbon Monoxide (CO) | 1.54 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-G3, Page no.16 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-G3, Page No.35 2013 |
| Benzene (C ₆ H ₆) | 1.42 | 5 | µg/m ³ | IS 987 (Part II) - 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 987 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/675/R-95/010 a Compendium Method 10-31 6 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/675/R-95/010 a Compendium Method 10-31 6 37 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5241

Report No. AA/03/23/5241

Report Date

16/03/2023


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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5242 | Report No. AA/03/23/5242 | Report Date | 16/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 06/03/2023 to 07/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 08/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 08/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 15/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 13 km/h | Wind Direction E-NE | Relative Humidity (Max./Min.): 49/37% | Temperature (Max./Min.): 36/27°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|-------------|------|--------|
|-----------|--------|-------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5187 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.6 | 80 | µg/m ³ | IS 5187 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 258 | 100 | µg/m ³ | IS 5187 (Part 2): 2001 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 109 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2017-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 41 Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-95/010 a Compendium Method 10-31.6.3.2 |
| Carbon Monoxide (CO) | 1.05 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2017-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5187 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5187 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-95/010 a Compendium Method 10-31.6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-95/010 a Compendium Method 10-31.6.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5242 | Report No. AA/03/23/5242 | Report Date | 16/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Reviewed & Authorised by



Note:

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4. There are no additions to, deviations or exclusions from the method.



NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/5243 | Report No: N/03/23/5243 | Report Date | 13/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date-Monitoring | 06/03/2023 |

| Chemical Testing; Group: Atmospheric Pollution | | | | |
|---|---------------------------------|--|--|--|
| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
| A. Near Main Gate (PNP Port) | 09:00 | 72.4 | 71.5 | CISB Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/258 2E Issue no. 4 Issue date 01.04.2016 |
| | 21:00 | 66.2 | 65.7 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 73.6 | 72.4 | |
| | 21:10 | 67.4 | 66.6 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 72.3 | 71.2 | |
| | 21:20 | 66.5 | 65.4 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 71.7 | 70.6 | |
| | 21:30 | 65.3 | 64.2 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 73.5 | 72.4 | |
| | 21:40 | 67.6 | 66.2 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 73.2 | 72.5 | |
| | 21:50 | 67.4 | 66.3 | |
| G. Near Custom Building (PNP Port) | 10:00 | 72.6 | 71.6 | |
| | 22:00 | 66.2 | 65.4 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 73.3 | 72.1 | |
| | 22:10 | 67.6 | 66.5 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 73.7 | 72.2 | |
| | 22:20 | 67.3 | 66.5 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.4 | 70.7 | |
| | 23:30 | 65.6 | 64.5 | |
| Limits | | | | |
| As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1)) | | | | |
| Area Type | Limits in dB (A) weighted scale | | | |
| | Day (6 a.m. to 10 p.m.) | | Night (10 p.m. to 6 a.m.) | |
| Industrial | 75 | | 70 | |


Ninal Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5300 | Report No. AA/03/23/5300 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 582 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 582 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 213 | 100 | µg/m ³ | IS 582 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 121 | 60 | µg/m ³ | CPCB Guidelines, Volume 1: 36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 411, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 8-3: 6:32 |
| Carbon Monoxide (CO) | 1.43 | 4 | mg/m ³ | CPCB Guidelines, Volume 1: 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1: 36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.31 | 5 | µg/m ³ | IS 582 (Part II): 2004 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 8-3: 6:34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 8-3: 6:32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5300 | Report No. AA/03/23/5300 | Report Date | 17/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5301 | Report No. AA/03/23/5301 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|---|
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5082 (Part 7): 2008 |
| Nitrogen Dioxide (NO ₂) | 29.2 | 80 | µg/m ³ | IS 5082 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 287 | 100 | µg/m ³ | IS 5082 (Part 73): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 138 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMNA), 3rd Ed., Method 40, Page no. 403: 2008 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.46 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.25: 2013 |
| Benzene (C ₆ H ₆) | 1.36 | 5 | µg/m ³ | IS 5082 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID - AA/03/23/5301 | Report No. AA/03/23/5301 | Report Date | 17/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5302 | Report No. AA/03/23/5302 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|--|--------------------------|--|-------------------------------------|---|
| Parameter | Result | NAAQS# 2009 | Unit | Method |
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 582 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 582 (Part 5) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 309 | 100 | µg/m ³ | IS 582 (Part 22) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 112 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2002-03, Page No.5: 2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed., Method 40, Page no. 403: 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-311 3.2 |
| Carbon Monoxide (CO) | 1.23 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 27/2002-03, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2002-03, Page No.35: 2003 |
| Benzene (C ₆ H ₆) | 1.14 | 5 | µg/m ³ | IS 582 (Part 11) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-311 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-311 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5302 | Report No. AA/03/23/5302 | Report Date | 17/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5303 | Report No. AA/03/23/5303 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5082 (Part 2): 2006 |
| Nitrogen Dioxide (NO ₂) | 25.1 | 80 | µg/m ³ | IS 5082 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 320 | 100 | µg/m ³ | IS 5082 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 127 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012 (I), Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed. Method 41, Page no. 402, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.53 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-III, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012 (I), Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.41 | 5 | µg/m ³ | IS 5082 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

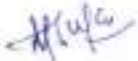

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Sample ID : AA/03/23/5303

Report No. AA/03/23/5303

Report Date

17/03/2023



Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5304 | Report No. AA/03/23/5304 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|--|
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 5882 (Part 7): 2008 |
| Nitrogen Dioxide (NO ₂) | 26.5 | 80 | µg/m ³ | IS 5882 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 243 | 100 | µg/m ³ | IS 5882 (Part 7): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 94 | 60 | µg/m ³ | EPCB Guidelines, Volume 1.36/2012-13, Page No.15, 2010 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed, Method 41, Page no. 403-4588 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 & 3.2 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | EPCB Guidelines, Volume 1.37/2012-13, Page no.16: 2010 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | EPCB Guidelines, Volume 1.36/2012-13, Page No.35: 2010 |
| Benzene (C ₆ H ₆) | 1.40 | 5 | µg/m ³ | IS 5882 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 & 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 & 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5304 | Report No. AA/03/23/5304 | Report Date | 17/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID: AA/03/23/5305 | Report No. AA/03/23/5305 | Report Date: | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by: | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 502 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 24.9 | 80 | µg/m ³ | IS 502 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 341 | 100 | µg/m ³ | IS 502 (Part 72): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 130 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-12, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed., Method 40, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.40 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 35/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.31 | 5 | µg/m ³ | IS 502 (Part 6): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 502 (Part 12): 2014 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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 Technical Manager (Chemical)
 Reviewed & Authorised by


Sample ID - AA/03/23/5305

Report No. AA/03/23/5305

Report Date

17/03/2023


Ninad Soundarkar

Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5306 | Report No. AA/03/23/5306 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 27.9 | 80 | µg/m ³ | IS 5182 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 314 | 100 | µg/m ³ | IS 5182 (Part 20) 2000 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 111 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 41, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.09 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 27/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15: 2003 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part 11) 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 2.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 2.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5306

Report No. AA/03/23/5306

Report Date

17/03/2023


Ninad Soundankar
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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5307 | Report No. AA/03/23/5307 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 582 (Part 2) 2007 |
| Nitrogen Dioxide (NO ₂) | 26.5 | 80 | µg/m ³ | IS 582 (Part 3) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 340 | 100 | µg/m ³ | IS 582 (Part 23) 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 128 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-03, Page No.5.2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed., Method AII, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 3.7 |
| Carbon Monoxide (CO) | 1.56 | 4 | mg/m ³ | CPCB Guidelines, Volume 1.37/2012-03, Page no.16. 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-03, Page No.35. 2003 |
| Benzene (C ₆ H ₆) | 1.41 | 5 | µg/m ³ | IS 582 (Part II) - 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part II) - 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



Sample ID : AA/03/23/5307

Report No. AA/03/23/5307

Report Date

17/03/2023


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End of Report

Note:

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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5308 | Report No. AA/03/23/5308 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near D1L Main Gate (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|--|--------------------------|--|-------------------------------------|--|
| Parameter | Result | NAAQS# 2009 | Unit | Method |
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5882 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5882 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 242 | 100 | µg/m ³ | IS 5882 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 137 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-03, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed, Method 411 Page no. 403 :1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 32 |
| Carbon Monoxide (CO) | 1.38 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-02, Page no.6: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-03, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.23 | 5 | µg/m ³ | IS 5882 (Part 11): 2001 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA: Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5308 | Report No. AA/03/23/5308 | Report Date | 17/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Reviewed & Authorised by



End of Report

Note:

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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5309 | Report No. AA/03/23/5309 | Report Date | 17/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 09/03/2023 to 10/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 11/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 11/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 16/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 15 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/22°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5182 (Part 2)-2006 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 5182 (Part 6)-2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 259 | 100 | µg/m ³ | IS 5182 (Part 23)-2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 103 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2002-03, Page No.15,2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWNA), 3rd Ed, Method 411, Page no. 403 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 2.2 |
| Carbon Monoxide (CO) | 1.08 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2002-03, Page no.16, 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2002-03, Page No.25, 2003 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part II) -2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12)-2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 2.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 0.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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 Technical Manager (Chemical)
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Sample ID : AA/03/23/5309

Report No. AA/03/23/5309

Report Date

17/03/2023


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End of Report

Note:

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NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/5342 | Report No: N/03/23/5342 | Report Date | 15/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | As per PO No. PNP/March/2021- 2022/020 Dated 31.03.2022 | Date-Monitoring | 09/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
|------------------------------------|----------|--|---|---|
| A. Near Main Gate (PNP Port) | 09:00 | 73.7 | 72.5 | CISRI Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/25636 Issue no. 4 Issuedate 01.04.2018 |
| | 21:00 | 67.2 | 66.6 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 72.4 | 71.3 | |
| | 21:10 | 66.5 | 65.4 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 73.2 | 72.7 | |
| | 21:20 | 67.4 | 66.5 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 73.6 | 72.4 | |
| | 21:30 | 66.2 | 66.6 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 72.3 | 71.2 | |
| | 21:40 | 66.1 | 65.4 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 73.4 | 72.5 | |
| | 21:50 | 67.0 | 66.2 | |
| G. Near Custom Building (PNP Port) | 10:00 | 72.2 | 71.3 | |
| | 22:00 | 66.4 | 65.2 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 71.5 | 70.4 | |
| | 22:10 | 65.7 | 64.5 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 73.3 | 72.2 | |
| | 22:20 | 67.4 | 66.2 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.6 | 70.5 | |
| | 23:30 | 65.3 | 64.2 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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End of Report

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- There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5424 | Report No. AA/03/23/5424 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5182 (Part 7): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 226 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 105 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15: 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 411 Page no. 403: 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.39 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.16 | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Sample ID : AA/03/23/5424

Report No. AA/03/23/5424

Report Date

21/03/2023



Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5425 | Report No. AA/03/23/5425 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|---------------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5182 (Part 7) 2006 |
| Nitrogen Dioxide (NO ₂) | 27.6 | 80 | µg/m ³ | IS 5182 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 270 | 100 | µg/m ³ | IS 5182 (Part 23) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 121 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.15-2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed, Method 411, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 G 2.2 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16-2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.25-2013 |
| Benzene (C ₆ H ₆) | 1.34 | 5 | µg/m ³ | IS 5182 (Part II) 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 G 2.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 G 2.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
 Reviewed & Authorised by


Sample ID : AA/03/23/5425

Report No. AA/03/23/5425

Report Date :

21/03/2023


Ninad Solundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5426 | Report No. AA/03/23/5426 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|-------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 982 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 24.6 | 80 | µg/m ³ | IS 982 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 298 | 100 | µg/m ³ | IS 982 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 102 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 41, Page no. 403-888 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 0-31.6.3.2 |
| Carbon Monoxide (CO) | 1.35 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2012-13, Page no.16/2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.35/2013 |
| Benzene (C ₆ H ₆) | 1.34 | 5 | µg/m ³ | IS 982 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 0-31.6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 0-31.6.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5426 | Report No. AA/03/23/5426 | Report Date | 21/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5427 | Report No. AA/03/23/5427 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|-------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 582 (Part 7) 2001 |
| Nitrogen Dioxide (NO ₂) | 25.7 | 80 | µg/m ³ | IS 582 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 324 | 100 | µg/m ³ | IS 582 (Part 73) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 118 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed., Method 40, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.48 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.36 | 5 | µg/m ³ | IS 582 (Part 11) 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by





| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5427 | Report No. AA/03/23/5427 | Report Date | 21/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5428 | Report No. AA/03/23/5428 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5187 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 28.7 | 80 | µg/m ³ | IS 5187 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 218 | 100 | µg/m ³ | IS 5187 (Part 7): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 80 | 60 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No.15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 401, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 3.7 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.45 | 5 | µg/m ³ | IS 5187 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5187 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/S428 | Report No. AA/03/23/S428 | Report Date | 21/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninal Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.





AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5429 | Report No. AA/03/23/5429 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 13.6 | 80 | µg/m ³ | IS 5882 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.8 | 80 | µg/m ³ | IS 5882 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 329 | 100 | µg/m ³ | IS 5882 (Part 22): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 120 | 60 | µg/m ³ | CPCB Guideline, Volume 1:35/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 41, Page no. 403:1986 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31:6:12 |
| Carbon Monoxide (CO) | 1.59 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.6: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:35/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.33 | 5 | µg/m ³ | IS 5882 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31:6:34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31:6:32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:

24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

Ninad Soundankar

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Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5429 | Report No. AA/03/23/5429 | Report Date | 21/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5430 | Report No. AA/03/23/5430 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No: PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 29 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 278 | 100 | µg/m ³ | IS 5182 (Part 7): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 97 | 60 | µg/m ³ | CPCB Guidelines, Volume I.36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 41, Page no. 402-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-11.6.3.2 |
| Carbon Monoxide (CO) | 1.08 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part II): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-11.6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-11.6.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards [Industrial, Residential, Rural and other Area] specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
 Reviewed & Authorised by


Sample ID : AA/03/23/5430

Report No. AA/03/23/5430

Report Date

21/03/2023



Nines Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5431 | Report No. AA/03/23/5431 | Report Date: | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|---------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 12.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 29.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 346 | 100 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 123 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 35/2012-G, Page No. 15/2013 |
| Ozone (O ₃) | BLQ (LOQ: 19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed. Method 41, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ: 0.02) | 1 | µg/m ³ | EPA/825/R-36/010 a Compendium Method 10-31 6 32 |
| Carbon Monoxide (CO) | 1.34 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-G2, Page no. 16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ: 20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-G2, Page No. 35, 2013 |
| Benzene (C ₆ H ₆) | 1.22 | 5 | µg/m ³ | IS 5182 (Part 1): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ: 0.2) | 1 | ng/m ³ | IS 5182 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ: 0.3) | 6 | ng/m ³ | EPA/825/R-36/010 a Compendium Method 10-31 6 34 |
| Nickel (as Ni) | BLQ (LOQ: 3) | 20 | ng/m ³ | EPA/825/R-36/010 a Compendium Method 10-31 6 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5431

Report No. AA/03/23/5431

Report Date

21/03/2023



Ninas Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5432 | Report No. AA/03/23/5432 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by: | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2003 |
| Nitrogen Dioxide (NO ₂) | 26.5 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 242 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 129 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 40, Page no. 403: 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.41 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.34 | 5 | µg/m ³ | IS 5182 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5432 | Report No. AA/03/23/5432 | Report Date | 21/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5433 | Report No. AA/03/23/5433 | Report Date | 21/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 13/03/2023 to 14/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 15/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 15/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 20/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 10 km/h | Wind Direction N-E | Relative Humidity (Max./Min.): 53/41% | Temperature (Max./Min.): 35/28°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 582 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 582 (Part 6): 2008 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 249 | 100 | µg/m ³ | IS 582 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 101 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 41, Page no. 403-398 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.03 | 4 | mg/m ³ | CPCB Guidelines, Volume 1.37/2012-13, Page no.16/2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.35/2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 582 (Part 11): 2008 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average


NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:

24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/S433 | Report No. AA/03/23/S433 | Report Date | 21/03/2023 |
|---------------------------|--------------------------|-------------|------------|



Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/5434 | Report No: N/03/23/5434 | Report Date | 17/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | PO No. PNP/Marchy/2021-2022/020 Dated 31.03.2022 | Date-Monitoring | 13/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
|------------------------------------|----------|--|--|--|
| A. Near Main Gate (PNP Port) | 09:00 | 72.5 | 71.7 | CPCB Protocol for Ambient Level Noise Monitoring, July NE/C/SAP/SAM/356/3E Issue no. 4, Issue date 01/04/2015 |
| | 21:00 | 66.3 | 65.3 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 73.7 | 72.4 | |
| | 21:10 | 67.4 | 66.2 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 72.3 | 71.5 | |
| | 21:20 | 66.5 | 65.3 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 73.6 | 72.2 | |
| | 21:30 | 67.4 | 66.3 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 73.2 | 72.3 | |
| | 21:40 | 67.3 | 66.7 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 72.4 | 71.2 | |
| | 21:50 | 66.3 | 65.5 | |
| G. Near Custom Building (PNP Port) | 10:00 | 73.6 | 72.4 | |
| | 22:00 | 67.5 | 66.2 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 73.3 | 72.6 | |
| | 22:10 | 67.6 | 66.4 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 72.5 | 71.7 | |
| | 22:20 | 66.6 | 65.4 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.3 | 70.5 | |
| | 23:30 | 65.2 | 64.3 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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End of Report

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- There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID - AA/03/23/5568 | Report No. AA/03/23/5568 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 24.9 | 80 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 270 | 100 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 134 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-Q, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed. Method 411 Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 32 |
| Carbon Monoxide (CO) | 1.9 | 4 | mg/m ³ | CPCB Guidelines, Volume 11: 37/2012-Q3, Page no.6: 2913 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-Q3, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.32 | 5 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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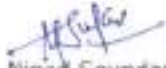


Sample ID : AA/03/23/5568

Report No. AA/03/23/5568

Report Date

24/03/2023



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End of Report

Note:

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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5569 | Report No. AA/03/23/5569 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|--|
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5882 (Part 7): 2008 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5882 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 346 | 100 | µg/m ³ | IS 5882 (Part 7): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 121 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.15,2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed. Method 40, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.05 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.25: 2013 |
| Benzene (C ₆ H ₆) | 1.91 | 5 | µg/m ³ | IS 5882 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5882 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316.3.7 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:

 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5569 | Report No. AA/03/23/5569 | Report Date | 24/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
2. This report is not to be reproduced except in full, without written approval of the laboratory.
3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5570 | Report No. AA/03/23/5570 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|---|
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 5082 (Part 7): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.6 | 80 | µg/m ³ | IS 5082 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 338 | 100 | µg/m ³ | IS 5082 (Part 7): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 106 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2002-13, Page No.15:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 41, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/E25/R-96/010 a Compendium Method 10-315.3.2 |
| Carbon Monoxide (CO) | 1.38 | 4 | mg/m ³ | CPCB Guidelines, Volume 1: 37/2002-13, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2002-13, Page No.35: 2003 |
| Benzene (C ₆ H ₆) | 1.21 | 5 | µg/m ³ | IS 5082 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/E25/R-96/010 a Compendium Method 10-315.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/E25/R-96/010 a Compendium Method 10-315.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5570

Report No. AA/03/23/5570

Report Date

24/03/2023


Ninad Soundankar

Technical Manager (Chemical)

Reviewed & Authorised by



Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5571 | Report No. AA/03/23/5571 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|--|--------------------------|--|-------------------------------------|--|
| Parameter | Result | NAAQS# 2009 | Unit | Method |
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 27.9 | 80 | µg/m ³ | IS 5182 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 372 | 100 | µg/m ³ | IS 5182 (Part 7) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 153 | 60 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No 15-2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 48, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.48 | 4 | mg/m ³ | CPCB Guidelines, Volume 11: 37/2012-13, Page no 16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No 25- 2013 |
| Benzene (C ₆ H ₆) | 1.24 | 5 | µg/m ³ | IS 5182 (Part 11) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12) : 2014 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:

24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5571 | Report No. AA/03/23/5571 | Report Date | 24/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5572 | Report No. AA/03/23/5572 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 982 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 982 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 242 | 100 | µg/m ³ | IS 982 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 95 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 41, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-32 |
| Carbon Monoxide (CO) | 0.74 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.62 | 5 | µg/m ³ | IS 982 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5572

Report No. AA/03/23/5572

Report Date

24/03/2023



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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5573 | Report No. AA/03/23/5573 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 582 (Part 2): 2003 |
| Nitrogen Dioxide (NO ₂) | 29.8 | 80 | µg/m ³ | IS 582 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 335 | 100 | µg/m ³ | IS 582 (Part 7): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 116 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.26/2012-13, Page No.15.2010 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 401 Page no. 403 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method ID-316.3.2 |
| Carbon Monoxide (CO) | 1.8 | 4 | mg/m ³ | CPCB Guidelines, Volume 1.37/2012-13, Page no.16.7903 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No.35.2003 |
| Benzene (C ₆ H ₆) | 1.19 | 5 | µg/m ³ | IS 582 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5573

Report No. AA/03/23/5573

Report Date

24/03/2023


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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5574 | Report No. AA/03/23/5574 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|--|--------------------------|--|-------------------------------------|---|
| Parameter | Result | NAAQS# 2009 | Unit | Method |
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 12.5 | 80 | µg/m ³ | IS 5982 (Part 2) 2010 |
| Nitrogen Dioxide (NO ₂) | 26.5 | 80 | µg/m ³ | IS 5982 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 217 | 100 | µg/m ³ | IS 5982 (Part 21) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 97 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed., Method 41, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 0.63 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.25, 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5982 (Part II), 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5982 (Part 12) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.7 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5574 | Report No. AA/03/23/5574 | Report Date | 24/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
2. This report is not to be reproduced except in full, without written approval of the laboratory.
3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5575 | Report No. AA/03/23/5575 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|---------------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.9 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 321 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 119 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 411, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 32 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No. 35, 2013 |
| Benzene (C ₆ H ₆) | 1.11 | 5 | µg/m ³ | IS 5182 (Part II) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 37 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 ≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
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Sample ID : AA/03/23/5575

Report No. AA/03/23/5575

Report Date

24/03/2023


Ninad Soundankar
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Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5576 | Report No. AA/03/23/5576 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference. | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5187 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 26.8 | 80 | µg/m ³ | IS 5187 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 345 | 100 | µg/m ³ | IS 5187 (Part 73): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 126 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-G, Page No.1520G |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 4H, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method ID-31832 |
| Carbon Monoxide (CO) | 1.6 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-G3, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-G3, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.11 | 5 | µg/m ³ | IS 5187 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5187 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID-31834 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID-31832 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Technical Manager (Chemical)
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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5576 | Report No. AA/03/23/5576 | Report Date | 24/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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end of report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID - AA/03/23/5577 | Report No. AA/03/23/5577 | Report Date | 24/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 16/03/2023 to 17/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 18/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 18/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 23/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 20 km/h | Wind Direction W | Relative Humidity (Max./Min.): 54/42% | Temperature (Max./Min.): 32/25°C | Duration of Survey 24 h |
|----------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 582 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 582 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 198 | 100 | µg/m ³ | IS 582 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 76 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-01, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 4H, Page no. 403:1986 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-32 |
| Carbon Monoxide (CO) | 0.59 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.6: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-01, Page No.25: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 582 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID - AA/03/23/5577

Report No. AA/03/23/5577

Report Date

24/03/2023


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End of Report

Note:

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NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/5640 | Report No: N/03/23/5640 | Report Date | 23/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushen Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date-Monitoring | 16/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
|------------------------------------|----------|--|---|--|
| A. Near Main Gate (PNP Port) | 09:00 | 73.4 | 72.7 | CISPR Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/35636, Issue no. 4, Issue date 01.04.2018 |
| | 21:00 | 67.6 | 66.4 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 72.2 | 71.6 | |
| | 21:10 | 66.3 | 65.2 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 73.7 | 72.3 | |
| | 21:20 | 67.4 | 66.6 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 73.3 | 72.5 | |
| | 21:30 | 67.5 | 66.7 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 72.5 | 71.4 | |
| | 21:40 | 66.6 | 65.2 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 73.2 | 72.3 | |
| | 21:50 | 67.4 | 66.2 | |
| G. Near Custom Building (PNP Port) | 10:00 | 71.4 | 70.4 | |
| | 22:00 | 65.3 | 64.2 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 73.6 | 72.2 | |
| | 22:10 | 67.4 | 66.5 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 72.7 | 71.5 | |
| | 22:20 | 66.3 | 65.6 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.4 | 70.6 | |
| | 23:30 | 65.2 | 64.3 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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- There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|-------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5658 | Report No. AA/03/23/5658 | Report Date | 28/03/2023 |
| Name and address of Customer: | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 982 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.7 | 80 | µg/m ³ | IS 982 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 270 | 100 | µg/m ³ | IS 982 (Part 7): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 146 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 40, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6.3.7 |
| Carbon Monoxide (CO) | 1.5 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.25, 2013 |
| Benzene (C ₆ H ₆) | 1.33 | 5 | µg/m ³ | IS 982 (Part II) - 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6.3.7 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5658 | Report No. AA/03/23/5658 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5659 | Report No. AA/03/23/5659 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|-------------|------|--------|
|-----------|--------|-------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 982 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.6 | 80 | µg/m ³ | IS 982 (Part 0): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 363 | 100 | µg/m ³ | IS 982 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 156 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-13, Page No.15: 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 4H, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 0-31 6 32 |
| Carbon Monoxide (CO) | 1.10 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.21 | 5 | µg/m ³ | IS 982 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 0-31 6 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 0-31 6 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5659 | Report No. AA/03/23/5659 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5660 | Report No. AA/03/23/5660 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 28.7 | 80 | µg/m ³ | IS 5182 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 318 | 100 | µg/m ³ | IS 5182 (Part 23) 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 116 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 40, Page no. 403: 1998 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.18 | 4 | mg/m ³ | CPCB Guidelines, Volume 1: 37/2012-13, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.35: 2003 |
| Benzene (C ₆ H ₆) | 1.39 | 5 | µg/m ³ | IS 5182 (Part 10) 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5660 | Report No. AA/03/23/5660 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5661 | Report No. AA/03/23/5661 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 303 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 145 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2017-13, Page No.15,2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 40, Page no. 403, 1998 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.58 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2017-13, Page no.16, 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2017-13, Page No.35, 2003 |
| Benzene (C ₆ H ₆) | 1.31 | 5 | µg/m ³ | IS 5182 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5661 | Report No. AA/03/23/5661 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5662 | Report No. AA/03/23/5662 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 5182 (Part 7): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.6 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 219 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 94 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No.15:2012 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ISMA), 3rd Ed., Method 4H, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 0.83 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.81 | 5 | µg/m ³ | IS 5182 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5662 | Report No. AA/03/23/5662 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5663 | Report No. AA/03/23/5663 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Coleba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|-------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 582 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 582 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 329 | 100 | µg/m ³ | IS 582 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 124 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed. Method 411, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 32 |
| Carbon Monoxide (CO) | 1.13 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.32 | 5 | µg/m ³ | IS 582 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5663 | Report No. AA/03/23/5663 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5664 | Report No. AA/03/23/5664 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5182 (Part 2): 2007 |
| Nitrogen Dioxide (NO ₂) | 25.1 | 80 | µg/m ³ | IS 5182 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 227 | 100 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 104 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 411, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 0.83 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part 1): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5664

Report No. AA/03/23/5664

Report Date

28/03/2023



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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5665 | Report No. AA/03/23/5665 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|-------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 12.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2010 |
| Nitrogen Dioxide (NO ₂) | 29.2 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 297 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 121 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15: 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed, Method 401, Page no. 403: 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 27/2002-03, Page no.16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.25: 2013 |
| Benzene (C ₆ H ₆) | 1.30 | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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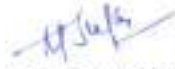


Sample ID : AA/03/23/5665

Report No. AA/03/23/5665

Report Date

28/03/2023



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Technical Manager (Chemical)
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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5666 | Report No. AA/03/23/5666 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 582 (Part 7): 2008 |
| Nitrogen Dioxide (NO ₂) | 28.1 | 80 | µg/m ³ | IS 582 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 343 | 100 | µg/m ³ | IS 582 (Part 7): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 119 | 60 | µg/m ³ | CPCB Guidelines, Volume 1/36/2012-13, Page No.15, 2012 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 401, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.9 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1/36/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.15 | 5 | µg/m ³ | IS 582 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5666 | Report No. AA/03/23/5666 | Report Date | 28/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.





AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5667 | Report No. AA/03/23/5667 | Report Date | 28/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 20/03/2023 to 21/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 22/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 22/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 27/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 12 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 56/44% | Temperature (Max./Min.): 30/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 987 (Part 2): 2009 |
| Nitrogen Dioxide (NO ₂) | 29.2 | 80 | µg/m ³ | IS 987 (Part 0): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 204 | 100 | µg/m ³ | IS 987 (Part 2): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 63 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-03, Page No.15.2010 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 401, Page no. 403.1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 0-318.3.2 |
| Carbon Monoxide (CO) | 0.70 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 27/2012-03, Page no.16.2010 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.36/2012-03, Page No.25.2010 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 987 (Part 0): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 987 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 0-318.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 0-318.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Sample ID : AA/03/23/5667

Report No. AA/03/23/5667

Report Date

28/03/2023



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Technical Manager (Chemical)
Reviewed & Authorised by



Note:

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4. There are no additions to, deviations or exclusions from the method.



NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|--|--------------------------|---------------|
| Sample ID: N/03/23/5668 | Report No: N/03/23/5668 | Report Date: | 23/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushari Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | As per PO No. PNP/March/2021- 2022/020 Dated 31.03.2022 | Date-Monitoring | 20/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
|------------------------------------|----------|--|--|--|
| A. Near Main Gate (PNP Port) | 09:00 | 72.5 | 71.2 | CPCB Protocol for Ambient Level Noise Monitoring, July NEC/C/SAP/SAM/256/20 Issue no. 4 Issue date 01/04/2008 |
| | 21:00 | 66.3 | 65.6 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 73.7 | 72.3 | |
| | 21:10 | 67.2 | 66.7 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 73.4 | 72.5 | |
| | 21:20 | 67.6 | 66.7 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 72.2 | 71.4 | |
| | 21:30 | 66.5 | 65.3 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 71.5 | 70.2 | |
| | 21:40 | 65.4 | 64.3 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 73.7 | 72.5 | |
| | 21:50 | 67.3 | 66.7 | |
| G. Near Custom Building (PNP Port) | 10:00 | 73.6 | 72.6 | |
| | 22:00 | 67.2 | 66.5 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 71.4 | 70.3 | |
| | 22:10 | 65.6 | 64.2 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 73.2 | 72.5 | |
| | 22:20 | 67.6 | 66.4 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 72.3 | 71.7 | |
| | 23:30 | 66.4 | 65.3 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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End of Report

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- There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5816 | Report No. AA/03/23/5816 | Report Date: | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 982 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.2 | 80 | µg/m ³ | IS 982 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 246 | 100 | µg/m ³ | IS 982 (Part 23): 2008 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 141 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-CI, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 411, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31.6.3.2 |
| Carbon Monoxide (CO) | 1.40 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-CI, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-CI, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.27 | 5 | µg/m ³ | IS 982 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31.6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31.6.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5816 | Report No. AA/03/23/5816 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5817 | Report No. AA/03/23/5817 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.1 | 80 | µg/m ³ | IS 5182 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 327 | 100 | µg/m ³ | IS 5182 (Part 23): 2005 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 134 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 41 Page no. 403-498 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/010 a Compendium Method 10-11.6.3.2 |
| Carbon Monoxide (CO) | 1.28 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.15 | 5 | µg/m ³ | IS 5182 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 17): 2014 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-21.6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-21.6.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5817 | Report No. AA/03/23/5817 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5818 | Report No. AA/03/23/5818 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 5082 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5082 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 339 | 100 | µg/m ³ | IS 5082 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 147 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.15,2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed. Method 41, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-316-3.2 |
| Carbon Monoxide (CO) | 1.39 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2002-03, Page no.16, 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.29 | 5 | µg/m ³ | IS 5082 (Part 10): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316-3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-316-3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5818 | Report No. AA/03/23/5818 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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4. There are no additions to, deviations or exclusions from the method.





AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5819 | Report No. AA/03/23/5819 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 987 (Part 7): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.5 | 80 | µg/m ³ | IS 987 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 351 | 100 | µg/m ³ | IS 987 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 144 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-13, Page No.15, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed., Method 41, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.48 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.29 | 5 | µg/m ³ | IS 987 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 987 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5819 | Report No. AA/03/23/5819 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5820 | Report No. AA/03/23/5820 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5082 (Part 7): 2008 |
| Nitrogen Dioxide (NO ₂) | 26 | 80 | µg/m ³ | IS 5082 (Part 6): 2008 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 254 | 100 | µg/m ³ | IS 5082 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 118 | 60 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 4H, Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | (EPA/625/R-96/010 a Compendium Method 10-316:32 |
| Carbon Monoxide (CO) | 1.20 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.20 | 5 | µg/m ³ | IS 5082 (Part 8): 2008 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316:34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316:32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 # NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
 Reviewed & Authorised by


| | | | |
|---------------------------|--------------------------|--------------|------------|
| Sample ID : AA/03/23/5820 | Report No. AA/03/23/5820 | Report Date: | 31/03/2023 |
|---------------------------|--------------------------|--------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
2. This report is not to be reproduced except in full, without written approval of the laboratory.
3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.





AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5821 | Report No. AA/03/23/5821 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 29.2 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 368 | 100 | µg/m ³ | IS 5182 (Part 22): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 159 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-G, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed. Method 411, Page no. 403: 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-95/010 a Compendium Method 10-31 6: 3.2 |
| Carbon Monoxide (CO) | 1.48 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2002-G3, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-G3, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.35 | 5 | µg/m ³ | IS 5182 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-31 6: 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-31 6: 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

N. S. Jadhav
Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5821 | Report No. AA/03/23/5821 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5822 | Report No. AA/03/23/5822 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference: | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 982 (Part 2): 2006 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 982 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 327 | 100 | µg/m ³ | IS 982 (Part 2): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 119 | 60 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No. 15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed. Method 41, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31.6.3.2 |
| Carbon Monoxide (CO) | 1.21 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no. 16/2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No. 35/2013 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 982 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31.6.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31.6.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

H. S. Soundankar
Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authored by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5822 | Report No. AA/03/23/5822 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5823 | Report No. AA/03/23/5823 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|-------------|------|--------|
|-----------|--------|-------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|---|
| Sulphur Dioxide (SO ₂) | 12.5 | 80 | µg/m ³ | IS 982 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 982 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 361 | 100 | µg/m ³ | IS 982 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 134 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No. 15.2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 40, Page no. 403-1586 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.35 | 4 | mg/m ³ | CPCB Guidelines, Volume 1. 37/2012-13, Page no.16- 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.35/2012-13, Page No.25- 2003 |
| Benzene (C ₆ H ₆) | 1.24 | 5 | µg/m ³ | IS 982 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 982 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5823 | Report No. AA/03/23/5823 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5824 | Report No. AA/03/23/5824 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5182 (Part 7) 2001 |
| Nitrogen Dioxide (NO ₂) | 26.2 | 80 | µg/m ³ | IS 5182 (Part 6) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 279 | 100 | µg/m ³ | IS 5182 (Part 23) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 146 | 60 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No.15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed., Method 41/ Page no. 402/1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/D10 a Compendium Method 10-31 & 32 |
| Carbon Monoxide (CO) | 1.36 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 31/2012-13, Page no.16/ 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No.35/ 2013 |
| Benzene (C ₆ H ₆) | 1.23 | 5 | µg/m ³ | IS 5182 (Part 11) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12) : 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/D10 a Compendium Method 10-31 & 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/D10 a Compendium Method 10-31 & 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

AS-16
Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5824 | Report No. AA/03/23/5824 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

1. The result listed refer only to the tested sample(s) and applicable parameter(s).
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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5825 | Report No. AA/03/23/5825 | Report Date | 31/03/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 23/03/2023 to 24/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 25/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 25/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 30/03/2023 |

Meteorological Data / Environmental Conditions

| Average Wind Velocity 14 km/h | Wind Direction W-NW | Relative Humidity (Max./Min.): 71/59% | Temperature (Max./Min.): 31/23°C | Duration of Survey 24 h |
|----------------------------------|------------------------|--|-------------------------------------|----------------------------|
| Parameter | Result | NAAQS# 2009 | Unit | Method |

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 582 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 29.8 | 80 | µg/m ³ | IS 582 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 284 | 100 | µg/m ³ | IS 582 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 130 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed., Method 40, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |
| Carbon Monoxide (CO) | 1.23 | 4 | mg/m ³ | CPCB Guidelines, Volume 11: 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.12 | 5 | µg/m ³ | IS 582 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-31 6 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5825 | Report No. AA/03/23/5825 | Report Date | 31/03/2023 |
|---------------------------|--------------------------|-------------|------------|


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4. There are no additions to, deviations or exclusions from the method.



NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/5844 | Report No: N/03/23/5844 | Report Date | 28/03/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | As per PO No. PNP/March/2021- 2022/020 Dated 31.03.2022 | Date-Monitoring | 23/03/2023 |

| Chemical Testing; Group: Atmospheric Pollution | | | | |
|---|---------------------------------|--|--|--|
| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
| A. Near Main Gate (PNP Port) | 09:00 | 73.5 | 72.3 | CPCB Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/SSS 3E Issue no. 4 Issue date 03.04.2018 |
| | 21:00 | 67.7 | 66.5 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 71.4 | 70.2 | |
| | 21:10 | 65.3 | 64.4 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 72.7 | 71.6 | |
| | 21:20 | 66.2 | 65.4 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 73.3 | 71.6 | |
| | 21:30 | 67.5 | 65.4 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 73.4 | 72.3 | |
| | 21:40 | 67.6 | 66.4 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 72.2 | 71.2 | |
| | 21:50 | 66.7 | 65.5 | |
| G. Near Custom Building (PNP Port) | 10:00 | 73.5 | 72.4 | |
| | 22:00 | 67.4 | 66.2 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 73.7 | 72.6 | |
| | 22:10 | 67.6 | 66.4 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 72.6 | 71.5 | |
| | 22:20 | 67.3 | 66.3 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.2 | 70.7 | |
| | 23:30 | 65.4 | 64.2 | |
| Limits | | | | |
| As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1)) | | | | |
| Area Type | Limits in dB (A) weighted scale | | | |
| | Day (6 a.m. to 10 p.m.) | | Night (10 p.m. to 6 a.m.) | |
| Industrial | 75 | | 70 | |


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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5959 | Report No. AA/03/23/5959 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5082 (Part 2)- 2008 |
| Nitrogen Dioxide (NO ₂) | 27.3 | 80 | µg/m ³ | IS 5082 (Part II)- 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 177 | 100 | µg/m ³ | IS 5082 (Part 23)-2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 103 | 60 | µg/m ³ | CPCB Guidelines, Volume I:05/2017-13, Page No:15-2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMNA), 3rd Ed., Method 4H, Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method ID-3163.2 |
| Carbon Monoxide (CO) | 1.43 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2017-03, Page no:16-2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I:05/2017-13, Page No:25-2013 |
| Benzene (C ₆ H ₆) | 1.23 | 5 | µg/m ³ | IS 5082 (Part III)- 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part II)- 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-3163.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-3163.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

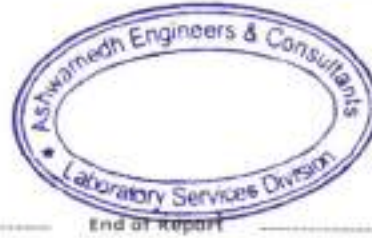
≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5959 | Report No. AA/03/23/5959 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|--------------------------------|--------------------------|
| Sample ID : AA/03/23/5960 | Report No. AA/03/23/5960 | Report Date: | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type: | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling: | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis: | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis: | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5182 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5182 (Part 6): 2008 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 239 | 100 | µg/m ³ | IS 5182 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 116 | 60 | µg/m ³ | CPCB Guidelines, Volume I: 28/2012-13, Page No:15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed., Method 41, Page no. 403-498 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/018 a Compendium Method 10-31 B 3.2 |
| Carbon Monoxide (CO) | 1.18 | 4 | mg/m ³ | CPCB Guidelines, Volume II: 37/2012-13, Page no:16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I:36/2012-13, Page No:35: 2013 |
| Benzene (C ₆ H ₆) | 1.32 | 5 | µg/m ³ | IS 5182 (Part 11): 2008 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 17): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/018 a Compendium Method 10-31 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/018 a Compendium Method 10-31 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5960 | Report No. AA/03/23/5960 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5961 | Report No. AA/03/23/5961 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : 8ap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 502 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.1 | 80 | µg/m ³ | IS 502 (Part 5): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 248 | 100 | µg/m ³ | IS 502 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 95 | 60 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (NAND), 3rd Ed. Method 4II, Page no. 403-088 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method 0-316-32 |
| Carbon Monoxide (CO) | 1.40 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.47 | 5 | µg/m ³ | IS 502 (Part II) : 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 502 (Part II) : 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 0-316-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method 0-316-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5961 | Report No. AA/03/23/5961 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|


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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID: AA/03/23/5962 | Report No. AA/03/23/5962 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 29.5 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 246 | 100 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 120 | 60 | µg/m ³ | CPCB Guidelines, Volume 1/26/2012-13, Page No. 5/203 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed., Method A1 Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method ID-311 & 32 |
| Carbon Monoxide (CO) | 1.20 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 31/2002-13, Page no.16-2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1/26/2012-13, Page No 35-2013 |
| Benzene (C ₆ H ₆) | 1.12 | 5 | µg/m ³ | IS 5182 (Part III) 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part IV) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-311 & 34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-311 & 32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Sample ID : AA/03/23/5962

Report No. AA/03/23/5962

Report Date

04/04/2023



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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID: AA/03/23/5963 | Report No. AA/03/23/5963 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|---------------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5187 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.7 | 80 | µg/m ³ | IS 5187 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 175 | 100 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 98 | 60 | µg/m ³ | CPCB Guidelines, Volume I, 36/2012-13, Page No. 15/2013 |
| Ozone (O ₃) | BLQ (LOQ: 19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (NAMA), 3rd Ed., Method 40, Page no. 400, 1988 |
| Lead (as Pb) | BLQ (LOQ: 0.02) | 1 | µg/m ³ | EPA/675/R-96/010 a Compendium Method III-319-3.2 |
| Carbon Monoxide (CO) | 1.48 | 4 | mg/m ³ | CPCB Guidelines, Volume I, 37/2012-13, Page no. 16/2013 |
| Ammonia (NH ₃) | BLQ (LOQ: 20) | 400 | µg/m ³ | CPCB Guidelines, Volume I, 38/2012-13, Page No. 35/2013 |
| Benzene (C ₆ H ₆) | 1.36 | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ: 0.2) | 1 | ng/m ³ | IS 5182 (Part II): 2004 |
| Arsenic (as As) | BLQ (LOQ: 0.3) | 6 | ng/m ³ | EPA/675/R-96/010 a Compendium Method III-319-3.4 |
| Nickel (as Ni) | BLQ (LOQ: 3) | 20 | ng/m ³ | EPA/675/R-96/010 a Compendium Method III-319-3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

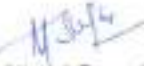


Sample ID : AA/03/23/5963

Report No. AA/03/23/5963

Report Date

04/04/2023



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Technical Manager (Chemical)
Reviewed & Authorised by



Note:

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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5964 | Report No. AA/03/23/5964 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|---|-------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 5082 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.2 | 80 | µg/m ³ | IS 5082 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 270 | 100 | µg/m ³ | IS 5082 (Part 23): 2016 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 109 | 60 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No 15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANNA), 3rd Ed., Method 411 Page no. 403-1008 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-98/010 a Compendium Method 10-31 § 3.2 |
| Carbon Monoxide (CO) | 1.56 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2012-13, Page no 16/2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 136/2012-13, Page No 35/2013 |
| Benzene (C ₆ H ₆) | 1.31 | 5 | µg/m ³ | IS 5082 (Part 11): 2016 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 12): 2016 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-98/010 a Compendium Method 10-31 § 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-98/010 a Compendium Method 10-31 § 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5964 | Report No. AA/03/23/5964 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5965 | Report No. AA/03/23/5965 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5182 (Part 1): 2001 |
| Nitrogen Dioxide (NO ₂) | 24.6 | 80 | µg/m ³ | IS 5182 (Part 1): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 267 | 100 | µg/m ³ | IS 5182 (Part 1): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 94 | 60 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.6, 2012 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed., Method 411 Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method ID-3115.3.2 |
| Carbon Monoxide (CO) | 1.41 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2012 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.35, 2012 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part 1): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 1): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-3115.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-3115.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5965 | Report No. AA/03/23/5965 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|



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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5966 | Report No. AA/03/23/5966 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|-------------------|----------------|-------------------|---|
| Chemical Testing: Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2016 |
| Nitrogen Dioxide (NO ₂) | 29.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2016 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 298 | 100 | µg/m ³ | IS 5182 (Part 2): 2016 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 112 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No 15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method A4/Page no. 433-1088 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method ID-31632 |
| Carbon Monoxide (CO) | 1.39 | 4 | mg/m ³ | CPCB Guidelines, Volume 1: 37/2012-13, Page no:6: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No 35: 2013 |
| Benzene (C ₆ H ₆) | 1.18 | 5 | µg/m ³ | IS 5182 (Part II): 2016 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part II): 2016 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-31634 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-31632 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

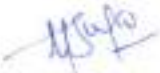
TWA Time Weighted Average

≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5966 | Report No. AA/03/23/5966 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|



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AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5967 | Report No. AA/03/23/5967 | Report Date | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Main Gate (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing: Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 231 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 119 | 60 | µg/m ³ | CPCB Guidelines, Volume I:35/2017-13, Page No. 6: 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ARMA), 3rd Ed., Method 40/ Page no. 403-1088 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method ID-31 632 |
| Carbon Monoxide (CO) | 1.26 | 4 | mg/m ³ | CPCB Guidelines, Volume I, 37/2012-12, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume I:35/2017-13, Page No 25: 2013 |
| Benzene (C ₆ H ₆) | 1.17 | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID-31 634 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID-31 632 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/03/23/5967 | Report No. AA/03/23/5967 | Report Date | 04/04/2023 |
|---------------------------|--------------------------|-------------|------------|


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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/03/23/5968 | Report No. AA/03/23/5968 | Report Date: | 04/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 27/03/2023 to 28/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 29/03/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 29/03/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 03/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 16 km/h | Wind Direction N-W | Relative Humidity (Max./Min.): 60/48% | Temperature (Max./Min.): 30/21°C | Duration of Survey 24 h |
|----------------------------------|-----------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|-----------|--------|----------------|------|--------|
|-----------|--------|----------------|------|--------|

Chemical Testing; Group: Atmospheric Pollution

| | | | | |
|--|--------------------------|-----|-------------------|--|
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5082 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 29.8 | 80 | µg/m ³ | IS 5082 (Part 3): 2008 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 245 | 100 | µg/m ³ | IS 5082 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 94 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2007-03, Page No 15:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMNA), 3rd Ed., Method 40 Page no. 402-058 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/010 a Compendium Method 03-31.9.3.2 |
| Carbon Monoxide (CO) | 1.9 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 27/2007-03, Page no 16: 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2007-03, Page No 35: 2003 |
| Benzene (C ₆ H ₆) | 1.09 | 5 | µg/m ³ | IS 5082 (Part 4): 2008 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part 02): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 03-31.9.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 03-31.9.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

 * NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
 case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
 Reviewed & Authorised by


Sample ID : AA/03/23/5968

Report No. AA/03/23/5968

Report Date

04/04/2023



Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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NOISE LEVEL MEASUREMENT REPORT

| | | | |
|-------------------------------|---|--------------------------|---------------|
| Sample ID: N/03/23/6007 | Report No: N/03/23/6007 | Report Date | 06/04/2023 |
| Name and Address of Customer: | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done by | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | As per PO No. PNP/March/2021- 2022/020 Dated 31.03.2022 | Date-Monitoring | 27/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results Noise Level dB (A) Fast Response | Results Noise Level dB (A) Slow Response | Method |
|------------------------------------|----------|--|---|---|
| A. Near Main Gate (PNP Port) | 09:00 | 72.7 | 71.5 | CPCB Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/356 IS Issue no.4 Issue date 01.04.2008 |
| | 21:00 | 66.5 | 65.2 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 73.4 | 72.3 | |
| | 21:10 | 67.6 | 66.4 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 73.2 | 72.6 | |
| | 21:20 | 67.4 | 66.5 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 71.6 | 70.4 | |
| | 21:30 | 65.3 | 64.2 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 73.3 | 72.5 | |
| | 21:40 | 67.6 | 66.6 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 72.2 | 71.2 | |
| | 21:50 | 66.4 | 65.5 | |
| G. Near Custom Building (PNP Port) | 10:00 | 73.6 | 72.4 | |
| | 22:00 | 67.3 | 66.4 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 73.4 | 72.6 | |
| | 22:10 | 67.5 | 66.2 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 72.6 | 71.3 | |
| | 22:20 | 66.4 | 65.6 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 71.3 | 70.4 | |
| | 23:30 | 65.4 | 64.2 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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Technical Manager (Chemical)
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End of Report

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- There are no additions to, deviation or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5001 | Report No. AA/04/23/5001 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Main Gate (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|-----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey: 24 h |
|---------------------------------|---------------------|--|-------------------------------------|-----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 582 (Part 2): 2008 |
| Nitrogen Dioxide (NO ₂) | 29.8 | 80 | µg/m ³ | IS 582 (Part 5): 2008 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 164 | 100 | µg/m ³ | IS 582 (Part 23): 2008 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 111 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 35/2012-13, Page No. 52/2012 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method A8, Page no. 433, 588 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-95/010 a Compendium Method 10-316-32 |
| Carbon Monoxide (CO) | 1.34 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no. 6, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 35/2012-13, Page No 35, 2013 |
| Benzene (C ₆ H ₆) | 1.19 | 5 | µg/m ³ | IS 582 (Part 8) : 2008 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-95/010 a Compendium Method 10-316-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-95/010 a Compendium Method 10-316-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/04/23/5001 | Report No. AA/04/23/5001 | Report Date | 07/04/2023 |
|---------------------------|--------------------------|-------------|------------|


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4. There are no additions to, deviations or exclusions from the method.





AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5002 | Report No. AA/04/23/5002 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 1 (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5182 (Part 2) 2001 |
| Nitrogen Dioxide (NO ₂) | 27.6 | 80 | µg/m ³ | IS 5182 (Part 2) 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 228 | 100 | µg/m ³ | IS 5182 (Part 2) 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 110 | 60 | µg/m ³ | CPCB Guidelines, Volume 13B/2012-13, Page No.15/203 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed., Method A1, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-3-2 |
| Carbon Monoxide (CO) | 1.21 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no.16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2012-13, Page No.35, 2013 |
| Benzene (C ₆ H ₆) | 1.33 | 5 | µg/m ³ | IS 5182 (Part 2) 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 2) 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-3-4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method 10-316-3-2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

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Sample ID : AA/04/23/5002

Report No. AA/04/23/5002

Report Date

07/04/2023


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End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID: AA/04/23/5003 | Report No. AA/04/23/5003 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 2 (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , BaP, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 10.4 | 80 | µg/m ³ | IS 5182 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.7 | 80 | µg/m ³ | IS 5182 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 271 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 98 | 60 | µg/m ³ | CPCB Guidelines, Volume 1.35/2017-13, Page No.5:2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMMA), 3rd Ed., Method 411 Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/016 a Compendium Method 10-318.3.2 |
| Carbon Monoxide (CO) | 1.25 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2012-03, Page no.16:2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1.35/2017-03, Page No.35:2003 |
| Benzene (C ₆ H ₆) | 1.43 | 5 | µg/m ³ | IS 5182 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/016 a Compendium Method 10-318.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/016 a Compendium Method 10-318.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|--------------------------|--------------------------|-------------|------------|
| Sample ID: AA/04/23/5003 | Report No. AA/04/23/5003 | Report Date | 07/04/2023 |
|--------------------------|--------------------------|-------------|------------|


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Technical Manager (Chemical)
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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5004 | Report No. AA/04/23/5004 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 3 (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 7.3 | 80 | µg/m ³ | IS 582 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 582 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 234 | 100 | µg/m ³ | IS 582 (Part 2): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 103 | 60 | µg/m ³ | CPCB Guideline, Volume 1,36/2012-13, Page No.15/2010 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (ANMA), 3rd Ed. Method 401 Page no. 403 :1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/010 a Compendium Method 10-316.3.2 |
| Carbon Monoxide (CO) | 1.15 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no.6: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1,36/2012-13, Page No.35: 2013 |
| Benzene (C ₆ H ₆) | 1.22 | 5 | µg/m ³ | IS 582 (Part 2): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 582 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-316.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method 10-316.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/04/23/5004 | Report No. AA/04/23/5004 | Report Date | 07/04/2023 |
|---------------------------|--------------------------|-------------|------------|


Nirad Soundankar
Technical Manager (Chemical)
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End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5005 | Report No. AA/04/23/5005 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Jetty No. 5 (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|-------------------|-------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 5.2 | 80 | µg/m ³ | IS 5182 (Part 2): 2010 |
| Nitrogen Dioxide (NO ₂) | 29.5 | 80 | µg/m ³ | IS 5182 (Part 6): 2010 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 164 | 100 | µg/m ³ | IS 5182 (Part 27): 2010 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 91 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15:2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed., Method 41/ Page no. 403:1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/675/R-95/010 a Compendium Method ID-311 B 3.2 |
| Carbon Monoxide (CO) | 1.41 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 31/2012-13, Page no.16: 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No.15: 2013 |
| Benzene (C ₆ H ₆) | 1.28 | 5 | µg/m ³ | IS 5182 (Part III): 2010 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 12): 2014 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/675/R-96/010 a Compendium Method ID-311 B 3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/675/R-96/010 a Compendium Method ID-311 B 3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Sample ID : AA/04/23/5005

Report No. AA/04/23/5005

Report Date

07/04/2023


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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2. This report is not to be reproduced except in full, without written approval of the laboratory.
3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviations or exclusions from the method.





AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5006 | Report No. AA/04/23/5006 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Weigh Bridge (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5982 (Part 2): 2003 |
| Nitrogen Dioxide (NO ₂) | 26 | 80 | µg/m ³ | IS 5982 (Part 5): 2004 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 288 | 100 | µg/m ³ | IS 5982 (Part 22): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 90 | 60 | µg/m ³ | CPCB Guidelines, Volume 1, 26/2012-03, Page No 15/2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AMA), 3rd Ed, Method AII, Page no. 433-588 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/010 a Compendium Method ID-315-32 |
| Carbon Monoxide (CO) | 1.38 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2002-03, Page no:6, 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1, 36/2002-03, Page No 35, 2003 |
| Benzene (C ₆ H ₆) | 1.33 | 5 | µg/m ³ | IS 5982 (Part 8): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5982 (Part 2): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method ID-315-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method ID-315-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

• NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/04/23/5006 | Report No. AA/04/23/5006 | Report Date | 07/04/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5007 | Report No. AA/04/23/5007 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Custom Building (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bag, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|-------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 11.5 | 80 | µg/m ³ | IS 5182 (Part 2): 2003 |
| Nitrogen Dioxide (NO ₂) | 24.9 | 80 | µg/m ³ | IS 5182 (Part 6): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 257 | 100 | µg/m ³ | IS 5182 (Part 20): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 89 | 60 | µg/m ³ | CPCB Guidelines, Volume 136/2002-03, Page No.15-2003 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 40, Page no. 401-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-96/010 a Compendium Method ID-31632 |
| Carbon Monoxide (CO) | 1.23 | 4 | mg/m ³ | CPCB Guidelines, Volume 11, 37/2002-03, Page no.16, 2003 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 136/2002-03, Page No.35, 2003 |
| Benzene (C ₆ H ₆) | BLQ (LOQ:1) | 5 | µg/m ³ | IS 5182 (Part III): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 0): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-96/010 a Compendium Method ID-31634 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-96/010 a Compendium Method ID-31632 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification.

TWA Time Weighted Average

≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Sample ID : AA/04/23/5007

Report No. AA/04/23/5007

Report Date

07/04/2023



Ninesh Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

Note:

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID: AA/04/23/5008 | Report No. AA/04/23/5008 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near Lal Gate (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No, PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|--------------------------|----------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 6.3 | 80 | µg/m ³ | IS 5082 (Part 2): 2018 |
| Nitrogen Dioxide (NO ₂) | 28.4 | 80 | µg/m ³ | IS 5082 (Part 2): 2018 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 313 | 100 | µg/m ³ | IS 5082 (Part 2): 2018 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 104 | 60 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No 15/2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (AWMA), 3rd Ed., Method 411 Page no. 403-1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/825/R-99/010 a Compendium Method 10-316-32 |
| Carbon Monoxide (CO) | 1.44 | 4 | mg/m ³ | CPCB Guidelines, Volume II, 37/2012-13, Page no 16/2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1:36/2012-13, Page No 35/2013 |
| Benzene (C ₆ H ₆) | 1.33 | 5 | µg/m ³ | IS 5082 (Part II): 2018 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5082 (Part II): 2018 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/825/R-99/010 a Compendium Method 10-316-34 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/825/R-99/010 a Compendium Method 10-316-32 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

* NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:

 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in

case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
 Technical Manager (Chemical)
 Reviewed & Authorised by


Sample ID: AA/04/23/5008

Report No. AA/04/23/5008

Report Date:

07/04/2023


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID : AA/04/23/5009 | Report No. AA/04/23/5009 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DiL Main Gate (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ : Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|--|--------------------------|-------------|-------------------|--|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 9.4 | 80 | µg/m ³ | IS 5182 (Part 7): 2001 |
| Nitrogen Dioxide (NO ₂) | 25.4 | 80 | µg/m ³ | IS 5182 (Part 8): 2005 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 220 | 100 | µg/m ³ | IS 5182 (Part 23): 2006 |
| Particulate Matter (size less than 2.5µm) or PM _{2.5} | 110 | 60 | µg/m ³ | CPCB Guidelines, Volume 1/36/2012-13 Page No.15-2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (MMA), 3rd Ed. Method 41, Page no. 403-4588 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-95/010 a Compendium Method ID:31632 |
| Carbon Monoxide (CO) | 1.24 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 17/2012-13 Page no.15-2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1/36/2012-13, Page No.35-2013 |
| Benzene (C ₆ H ₆) | 1.16 | 5 | µg/m ³ | IS 5182 (Part 11): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part 02): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID:31634 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-95/010 a Compendium Method ID:31632 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

≠ NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/04/23/5009 | Report No. AA/04/23/5009 | Report Date | 07/04/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



End of Report

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4. There are no additions to, deviations or exclusions from the method.



AMBIENT AIR QUALITY MONITORING REPORT

| | | | |
|------------------------------|--|-------------------------------|--------------------------|
| Sample ID: AA/04/23/5010 | Report No. AA/04/23/5010 | Report Date | 07/04/2023 |
| Name and address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400001, Maharashtra | | |
| Sampling done by | Laboratory | Sample Description / Type | Ambient Air |
| Sampling Location | Near DIL Godown Back Side (PNP Port) | Date - Sampling | 30/03/2023 to 31/03/2023 |
| Sample Quantity / Packing | PM ₁₀ , Bap, Metals: 1 x 3 no. filter paper PM _{2.5} : 1 x 1 no. filter paper SO ₂ , NO ₂ : 30 ml x 6 no. plastic bottle each NH ₃ : 10 ml x 24 no. plastic bottle Ozone: 10 ml x 1 no. plastic bottle C ₆ H ₆ : 6 no. charcoal tubes CO: 1 no. bladder | Date - Receipt of Sample | 01/04/2023 |
| Sampling Procedure | As per Method reference | Date - Start of Analysis | 01/04/2023 |
| Order Reference | As per PO No. PNP/March/2021-2022/020 Dated 31.03.2022 | Date - Completion of Analysis | 06/04/2023 |

Meteorological Data / Environmental Conditions

| | | | | |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|
| Average Wind Velocity 8 km/h | Wind Direction W | Relative Humidity (Max./Min.): 67/55% | Temperature (Max./Min.): 31/21°C | Duration of Survey 24 h |
|---------------------------------|---------------------|--|-------------------------------------|----------------------------|

| Parameter | Result | NAAQS# 2009 | Unit | Method |
|---|-------------------|----------------|-------------------|---|
| Chemical Testing; Group: Atmospheric Pollution | | | | |
| Sulphur Dioxide (SO ₂) | 8.3 | 80 | µg/m ³ | IS 5187 (Part 2): 2001 |
| Nitrogen Dioxide (NO ₂) | 26.8 | 80 | µg/m ³ | IS 5187 (Part 2): 2006 |
| Particulate Matter (size less than 10 µm) or PM ₁₀ | 239 | 100 | µg/m ³ | IS 5187 (Part 2): 2006 |
| Particulate Matter (size less than 2.5 µm) or PM _{2.5} | 91 | 60 | µg/m ³ | CPCB Guidelines, Volume 1/35/2012-13, Page No. 6, 2013 |
| Ozone (O ₃) | BLQ (LOQ:19.6) | 180 | µg/m ³ | Methods of Air Sampling and Analysis (HMM), 3rd Ed. Method A1, Page no. 403, 1988 |
| Lead (as Pb) | BLQ (LOQ:0.02) | 1 | µg/m ³ | EPA/625/R-96/010 a Compendium Method ID-3116.2.2 |
| Carbon Monoxide (CO) | 1.5 | 4 | mg/m ³ | CPCB Guidelines, Volume 1, 37/2012-13, Page no 16, 2013 |
| Ammonia (NH ₃) | BLQ (LOQ:20) | 400 | µg/m ³ | CPCB Guidelines, Volume 1/35/2012-13, Page No 35, 2013 |
| Benzene (C ₆ H ₆) | 1.09 | 5 | µg/m ³ | IS 5182 (Part II): 2006 |
| Benzo (a) pyrene (BaP) Particulate Phase only | BLQ (LOQ:0.2) | 1 | ng/m ³ | IS 5182 (Part II): 2004 |
| Arsenic (as As) | BLQ (LOQ:0.3) | 6 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-3116.3.4 |
| Nickel (as Ni) | BLQ (LOQ:3) | 20 | ng/m ³ | EPA/625/R-96/010 a Compendium Method ID-3116.3.2 |

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification

TWA Time Weighted Average

NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as:
24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM₁₀, PM_{2.5}, Lead and Ammonia, 1 hour TWA in
case of Carbon Monoxide and Ozone, Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.


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Reviewed & Authorised by



| | | | |
|---------------------------|--------------------------|-------------|------------|
| Sample ID : AA/04/23/5010 | Report No. AA/04/23/5010 | Report Date | 07/04/2023 |
|---------------------------|--------------------------|-------------|------------|


Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by



Note:

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NOISE LEVEL MEASUREMENT REPORT

| | | | |
|------------------------------|---|--------------------------|---------------|
| Sample ID: N/04/23/5020 | Report No.: N/04/23/5020 | Report Date | 06/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan Road, Colaba, Mumbai - 400 001 | | |
| Monitoring Done By | Laboratory | Sample Description /Type | Ambient Noise |
| Order Reference | As per PO No. PNP/March/2021- 2022/020 Dated 31.03.2022 | Date-Monitoring | 30/03/2023 |

Chemical Testing; Group: Atmospheric Pollution

| Location | Time (h) | Results | Results | Method |
|------------------------------------|----------|-------------------------------------|-------------------------------------|--|
| | | Noise Level dB (A) Fast Response | Noise Level dB (A) Slow Response | |
| A. Near Main Gate (PNP Port) | 09:00 | 73.3 | 72.2 | CPCB Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/206/35, Issue no. 4, Issue date 03.04.2010 |
| | 21:00 | 67.4 | 66.3 | |
| B. Near Jetty No. 1 (PNP Port) | 09:10 | 72.6 | 71.6 | |
| | 21:10 | 66.4 | 65.2 | |
| C. Near Jetty No. 2 (PNP Port) | 09:20 | 73.7 | 72.7 | |
| | 21:20 | 67.3 | 66.4 | |
| D. Near Jetty No. 3 (PNP Port) | 09:30 | 73.5 | 72.5 | |
| | 21:30 | 67.5 | 66.3 | |
| E. Near Jetty No. 5 (PNP Port) | 09:40 | 72.4 | 71.3 | |
| | 21:40 | 66.6 | 65.4 | |
| F. Near Weight Bridge (PNP Port) | 09:50 | 71.2 | 70.6 | |
| | 21:50 | 65.6 | 64.6 | |
| G. Near Custom Building (PNP Port) | 10:00 | 73.4 | 72.4 | |
| | 22:00 | 67.3 | 66.2 | |
| H. Near Lal Gate (PNP Port) | 10:10 | 73.3 | 72.5 | |
| | 22:10 | 67.5 | 66.4 | |
| I. Near DIL Main Gate (PNP Port) | 10:20 | 72.7 | 71.2 | |
| | 22:20 | 68.4 | 66.5 | |
| J. DIL Godown Back Side (PNP Port) | 11:30 | 70.5 | 69.3 | |
| | 23:30 | 66.4 | 64.6 | |

Limits

As Per the Noise Pollution (Regulation & Control) Rules, 2000 (Rules 3 (1) and 4(1))

| Area Type | Limits in dB (A) weighted scale | |
|------------|---------------------------------|---------------------------|
| | Day (6 a.m. to 10 p.m.) | Night (10 p.m. to 6 a.m.) |
| Industrial | 75 | 70 |


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Reviewed & Authorised by



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- In case sampling is not done by laboratory, the results apply to the sample as received.
- There are no additions to, deviation or exclusions from the method.



TEST REPORT

| | | |
|---|--|--|
| Sample ID: (1) AA/03/23/3072 (2) AA/03/23/3127 (3) AA/03/23/3141 (4) AA/03/23/3195 | Report No: (1) AA/03/23/3072N (2) AA/03/23/3127N (3) AA/03/23/3141N (4) AA/03/23/3195N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Main Gate | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 652971 | 821034 | 751236 | 863240 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 130326 | 152971 | 166314 | 104296 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 51222 | 63042 | 69237 | 60242 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 36248 | 52019 | 50314 | 45623 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2597 | 3627 | 3266 | 2547 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1011 | 2016 | 1567 | 1364 | By Particle Counter |



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4. There are no additions to, deviation or exclusions from the method.





TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3304 (2) AA/03/23/3362 (3) AA/03/23/3495 (4) AA/03/23/3585 (5) AA/04/23/3001 | Report No: (1) AA/03/23/3304N (2) AA/03/23/3362N (3) AA/03/23/3495N (4) AA/03/23/3585N (5) AA/04/23/3001N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Main Gate | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 623845 | 701246 | 602147 | 652971 | 752689 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 195574 | 120132 | 187631 | 130326 | 183658 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 62347 | 60257 | 59127 | 51222 | 69595 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 49235 | 47353 | 32363 | 36248 | 48757 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 3023 | 3024 | 2412 | 2597 | 2325 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1644 | 1433 | 1877 | 1011 | 1836 | By Particle Counter |


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TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3073 (2) AA/03/23/3128 (3) AA/03/23/3142 (4) AA/03/23/3196 | Report No.: (1) AA/03/23/3073N (2) AA/03/23/3128N (3) AA/03/23/3142N (4) AA/03/23/3196N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No. 1 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 662342 | 751286 | 751263 | 781023 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 181054 | 152034 | 162694 | 164512 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 50253 | 62596 | 50312 | 60123 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 31289 | 40237 | 32898 | 58914 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2014 | 3026 | 2014 | 2678 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1957 | 1547 | 1986 | 1486 | By Particle Counter |


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End of Report

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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3305 (2) AA/03/23/3363 (3) AA/03/23/3496 (4) AA/03/23/3586 (5) AA/04/23/3002 | Report No.: (1) AA/03/23/3305N (2) AA/03/23/3363N (3) AA/03/23/3496N (4) AA/03/23/3586N (5) AA/04/23/3002N | Report Date: 10/04/2023 |
| Name and Address of Customer: | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No. 1 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| i. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 781023 | 692345 | 609443 | 662342 | 692318 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 164512 | 112757 | 181267 | 181054 | 120623 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 60123 | 60284 | 60231 | 50253 | 62358 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 58914 | 53622 | 48207 | 31289 | 38594 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2678 | 3236 | 3626 | 2014 | 2197 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1486 | 1078 | 1847 | 1957 | 1066 | By Particle Counter |


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TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3074 (2) AA/03/23/3129 (3) AA/03/23/3143 (4) AA/03/23/3197 | Report No.: (1) AA/03/23/3074N (2) AA/03/23/3129N (3) AA/03/23/3143N (4) AA/03/23/3197N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No. 2 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 702456 | 820365 | 821364 | 601242 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 148225 | 110248 | 163153 | 185103 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 60347 | 50816 | 60017 | 69247 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 58953 | 32640 | 41863 | 50124 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2034 | 2047 | 2176 | 2658 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1462 | 1894 | 1985 | 1047 | By Particle Counter |


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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3305 (2) AA/03/23/3364 (3) AA/03/23/3497 (4) AA/03/23/3587 (5) AA/04/23/3003 | Report No: (1) AA/03/23/3306N (2) AA/03/23/3364N (3) AA/03/23/3497N (4) AA/03/23/3587N (5) AA/04/23/3003N | Report Date: 10/04/2023 |
| Name and Address of Customer: | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No: PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No. 2 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 892347 | 623048 | 820319 | 702456 | 721536 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 145236 | 141698 | 150348 | 148225 | 110244 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 66314 | 62843 | 70262 | 60347 | 60285 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 50122 | 59124 | 50317 | 58953 | 51348 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 3236 | 3082 | 3586 | 2034 | 2914 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1045 | 1407 | 1754 | 1462 | 1022 | By Particle Counter |


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4. There are no additions to, deviation or exclusions from the method.



TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3075 (2) AA/03/23/3130 (3) AA/03/23/3144 (4) AA/03/23/3198 | Report No: (1) AA/03/23/3075N (2) AA/03/23/3130N (3) AA/03/23/3144N (4) AA/03/23/3198N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021-2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No. 3 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 803020 | 859247 | 792536 | 840233 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 145715 | 162314 | 123584 | 159216 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 59876 | 50232 | 63922 | 60234 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 48757 | 40213 | 50314 | 45078 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2054 | 2597 | 2032 | 3232 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1070 | 1436 | 1567 | 1457 | By Particle Counter |


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4. There are no additions to, deviation or exclusions from the method.



TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3307 (2) AA/03/23/3365 (3) AA/03/23/3498 (4) AA/03/23/3588 (5) AA/04/23/3004 | Report No: (1) AA/03/23/3307N (2) AA/03/23/3365N (3) AA/03/23/3498N (4) AA/03/23/3588N (5) AA/04/23/3004N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021-2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No. 3 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 751026 | 750263 | 761345 | 803020 | 751035 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 195612 | 129541 | 145104 | 145715 | 112456 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 60147 | 66235 | 60318 | 59876 | 60242 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 40123 | 49120 | 30264 | 48757 | 48127 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2586 | 2347 | 8542 | 2054 | 3262 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1483 | 1204 | 1627 | 1070 | 1546 | By Particle Counter |


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TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3076 (2) AA/03/23/3131 (3) AA/03/23/3145 (4) AA/03/23/3199 | Report No: (1) AA/03/23/3076N (2) AA/03/23/3131N (3) AA/03/23/3145N (4) AA/03/23/3199N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021-2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No 5 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 751064 | 715236 | 751023 | 862395 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 102421 | 151721 | 138467 | 134579 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 40012 | 60314 | 62656 | 75064 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 39461 | 52589 | 58428 | 60241 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2552 | 3652 | 2349 | 3897 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1235 | 2014 | 1011 | 1243 | By Particle Counter |

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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3308 (2) AA/03/23/3366 (3) AA/03/23/3499 (4) AA/03/23/3589 (5) AA/04/23/3005 | Report No: (1) AA/03/23/3308N (2) AA/03/23/3366N (3) AA/03/23/3499N (4) AA/03/23/3589N (5) AA/04/23/3005N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021-2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Jetty No 5 | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 723469 | 702564 | 603298 | 751064 | 820422 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 141248 | 120134 | 141326 | 102421 | 195675 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 52397 | 50217 | 60845 | 40012 | 62357 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 30142 | 32655 | 48757 | 39461 | 48136 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2658 | 2587 | 3298 | 2552 | 2031 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1977 | 195623 | 1784 | 1235 | 1274 | By Particle Counter |


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4. There are no additions to, deviation or exclusions from the method.



TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3077 (2) AA/03/23/3132 (3) AA/03/23/3146 (4) AA/03/23/3200 | Report No.: (1) AA/03/23/3077N (2) AA/03/23/3132N (3) AA/03/23/3146N (4) AA/03/23/3200N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Weight Bridge | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 702465 | 720345 | 769924 | 703624 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 113047 | 162318 | 142126 | 146312 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 60314 | 60214 | 62031 | 60279 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 59745 | 54627 | 50177 | 53016 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2036 | 3659 | 2025 | 3697 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1117 | 2203 | 1285 | 1243 | By Particle Counter |


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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3309 (2) AA/03/23/3367 (3) AA/03/23/3500 (4) AA/03/23/3590 (5) AA/04/23/3006 | Report No.: (1) AA/03/23/3309N (2) AA/03/23/3367N (3) AA/03/23/3500N (4) AA/03/23/3590N (5) AA/04/23/3006N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Weigh Bridge | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 862204 | 703562 | 692477 | 702465 | 802592 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 120345 | 152134 | 132645 | 113047 | 106465 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 62378 | 62074 | 60201 | 60314 | 62977 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 52146 | 42023 | 56259 | 59745 | 40319 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2953 | 2147 | 2323 | 2036 | 2605 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1014 | 1632 | 1564 | 1117 | 1044 | By Particle Counter |

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TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3078 (2) AA/03/23/3133 (3) AA/03/23/3147 (4) AA/03/23/3201 | Report No.: (1) AA/03/23/3078N (2) AA/03/23/3133N (3) AA/03/23/3147N (4) AA/03/23/3201N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhustan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021-2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Custom Building | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 703466 | 812649 | 710236 | 781226 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 181304 | 154127 | 123168 | 162304 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 70356 | 62034 | 50249 | 59127 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 62347 | 50347 | 40316 | 46013 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 3058 | 2056 | 2985 | 2576 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1412 | 1596 | 1412 | 1087 | By Particle Counter |


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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3310 (2) AA/03/23/3368 (3) AA/03/23/3501 (4) AA/03/23/3591 (5) AA/04/23/3007 | Report No.: (1) AA/03/23/3310N (2) AA/03/23/3368N (3) AA/03/23/3501N (4) AA/03/23/3591N (5) AA/04/23/3007N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Custom Building | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 601243 | 761029 | 793156 | 703466 | 891346 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 184595 | 163204 | 130647 | 181304 | 147561 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 75103 | 40231 | 29022 | 70356 | 50342 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 50314 | 35698 | 62746 | 62347 | 35697 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 3026 | 2876 | 3037 | 3058 | 2541 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1964 | 1399 | 1415 | 1412 | 1789 | By Particle Counter |


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TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3079 (2) AA/03/23/3134 (3) AA/03/23/3148 (4) AA/03/23/3202 | Report No: (1) AA/03/23/3079N (2) AA/03/23/3134N (3) AA/03/23/3148N (4) AA/03/23/3202N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Lal Gate | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| 1. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 803425 | 812649 | 751206 | 785623 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 132600 | 142003 | 124483 | 195141 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 69102 | 62015 | 70319 | 70632 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 50787 | 58436 | 60274 | 50321 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 3956 | 2514 | 3268 | 2574 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1044 | 1635 | 1546 | 1644 | By Particle Counter |


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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3311 (2) AA/03/23/3369 (3) AA/03/23/3502 (4) AA/03/23/3592 (5) AA/04/23/3008 | Report No. (1) AA/03/23/3311N (2) AA/03/23/3369N (3) AA/03/23/3502N (4) AA/03/23/3592N (5) AA/04/23/3008N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near Lal Gate | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 710234 | 702463 | 703265 | 803425 | 624252 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 162348 | 150246 | 160314 | 132600 | 134574 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 53017 | 78024 | 58977 | 69102 | 50287 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 46238 | 50866 | 30245 | 50787 | 43036 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2021 | 2567 | 2894 | 3956 | 2658 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1682 | 1843 | 1747 | 1044 | 1699 | By Particle Counter |


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TEST REPORT

| | | |
|---|--|--|
| Sample ID: (1) AA/03/23/3080 (2) AA/03/23/3135 (3) AA/03/23/3149 (4) AA/03/23/3203 | Report No: (1) AA/03/23/3080N (2) AA/03/23/3135N (3) AA/03/23/3149N (4) AA/03/23/3203N | Report Date: 10/04/2023 |
| Name and Address of Customer: | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference As per PO No. PNP/March/2021-2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near DIL Main Gate | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|---------|------------|------------|------------|---------------------|
| | | | Date | 02.03.2023 | 06.03.2023 | 09.03.2023 | |
| I. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 862420 | 620012 | 820364 | 821643 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 162345 | 192103 | 181203 | 110267 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 45263 | 65924 | 48159 | 60314 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 30365 | 50231 | 32658 | 58979 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2234 | 3028 | 2041 | 2021 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1523 | 1204 | 1895 | 1597 | By Particle Counter |


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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3312 (2) AA/03/23/3370 (3) AA/03/23/3503 (4) AA/03/23/3593 (5) AA/04/23/3009 | Report No: (1) AA/03/23/3312N (2) AA/03/23/3370N (3) AA/03/23/3503N (4) AA/03/23/3593N (5) AA/04/23/3009N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | Near DIL Main Gate | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-------------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| 1. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 834969 | 802463 | 803162 | 862420 | 703163 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 145120 | 142017 | 163741 | 162345 | 185445 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 50314 | 63245 | 50399 | 45263 | 79656 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 32649 | 50026 | 30624 | 30365 | 62781 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2004 | 2378 | 3856 | 2234 | 3257 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1689 | 1017 | 1527 | 1523 | 1988 | By Particle Counter |


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TEST REPORT

| | | |
|---|--|---|
| Sample ID: (1) AA/03/23/3081 (2) AA/03/23/3136 (3) AA/03/23/3150 (4) AA/03/23/3204 | Report No. (1) AA/03/23/3081N (2) AA/03/23/3136N (3) AA/03/23/3150N (4) AA/03/23/3204N | Report Date: 10/04/2023 |
| Name and Address of Customer | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | DIL Godown Back Side | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|---------------------|
| | | | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| | Date | - | 02.03.2023 | 06.03.2023 | 09.03.2023 | 13.03.2023 | |
| i. | Particles | - | | | | | |
| a. | 0.3 μ | Particle/m ³ | 620452 | 623158 | 712035 | 751236 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 184616 | 141263 | 115276 | 185417 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 48102 | 62074 | 62841 | 62315 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 30565 | 42036 | 52318 | 50662 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 2849 | 3025 | 3659 | 3078 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1576 | 2561 | 1047 | 1057 | By Particle Counter |


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TEST REPORT

| | | |
|--|--|---|
| Sample ID: (1) AA/03/23/3313 (2) AA/03/23/3371 (3) AA/03/23/3504 (4) AA/03/23/3594 (5) AA/04/23/3010 | Report No: (1) AA/03/23/3313N (2) AA/03/23/3371N (3) AA/03/23/3504N (4) AA/03/23/3594N (5) AA/04/23/3010N | Report Date: 10/04/2023 |
| Name and Address of Customer: | PNP Maritime Services Private Limited 2nd Floor, Lansdowne House, Mahakavi Bhushan road, Colaba, Mumbai - 400 001, Maharashtra | Order Reference: As per PO No. PNP/March/2021- 2022/20 Dated 31/03/2022 |
| Sample Description/Type | Particle Size (Group: Atmospheric Pollution) | |
| Sampling Location | OIL Godown Back Side | |
| Sampling Procedure | By Particle Counter | |
| Duration of Survey | 24 h | |

| Sr. No. | Parameter | Units | Results | | | | | Method Reference |
|---------|-----------|-------------------------|------------|------------|------------|------------|------------|---------------------|
| | | | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| | Date | - | 16.03.2023 | 20.03.2023 | 23.03.2023 | 27.03.2023 | 30.03.2023 | |
| i. | Particles | - | | | | | | |
| a. | 0.3 μ | Particle/m ³ | 751033 | 602134 | 623178 | 620452 | 720495 | By Particle Counter |
| b. | 0.5 μ | Particle/m ³ | 126486 | 123568 | 112045 | 184616 | 151364 | By Particle Counter |
| c. | 1.0 μ | Particle/m ³ | 60314 | 62314 | 50213 | 48102 | 62035 | By Particle Counter |
| d. | 2.5 μ | Particle/m ³ | 51248 | 50856 | 49334 | 30565 | 48244 | By Particle Counter |
| e. | 5.0 μ | Particle/m ³ | 3647 | 2564 | 2086 | 2849 | 2031 | By Particle Counter |
| f. | 10 μ | Particle/m ³ | 1489 | 1895 | 1457 | 1576 | 1957 | By Particle Counter |


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