



ADITYA ENVIRONMENTAL SERVICES PVT. LTD.

Testing Laboratory is certified by ISO 9001:2015 & ISO 45001:2018

Recognized by MoEFCC as "Environmental Laboratory" valid up to 24.04.2025

Laboratory: P-1, MIDC Mohopada, P.O. Rasayani, Dist. Raigad Pin 410222

Tel: 9112844844, CIN: U74999MH2001PTC132091 UDYAM-MH-19-0029787

Monitoring Period: December 2024

Purpose:

The objective of the monitoring is to understand the Ambient Air quality, Ambient Noise quality, Ground water quality at Navi Mumbai International Airport site and nearby villages.

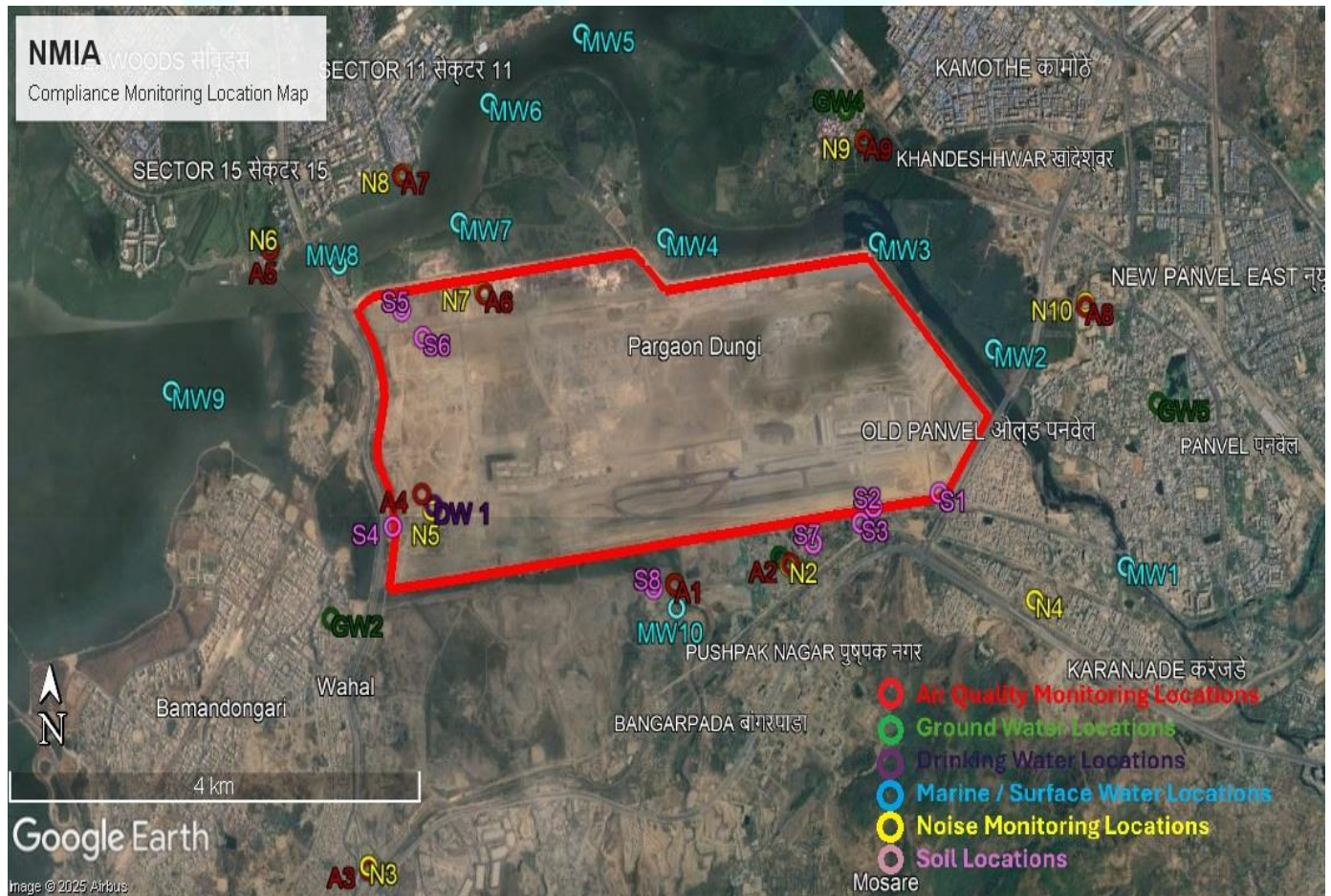
Location of site: Navi Mumbai International Airport, At Ulwe, Panvel Taluka, Raigad District, Maharashtra.

Scope:

The scope of work includes:

Assessment of the present status of following components of environment:

- Ambient Air monitoring at 9 locations
- Ambient Noise monitoring at 10 locations
- Ground water monitoring at 5 locations.
- Drinking water monitoring at 1 location
- Soil sample monitoring at 8 locations
- Marine Water monitoring at 10 locations





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Analysis Data: Ambient Air monitoring

Monitoring Dates & Duration	:	16 th December 24 to 18 th December 24; 24 hourly monitoring.
Analysis Dates	:	17 th December 24 to 25 th December 24
Locations covered (AAQ 9 Locations)	:	Owale, Pargaon, Ulwe node, NMIA Project site, Kille Gavthan, L&T Project Office, Diwale Koliwada, Jui & Panvel.
Parameters covered for AAQ	:	12 Parameters as per National Ambient Air Quality Standards (NAAQS) 2009.

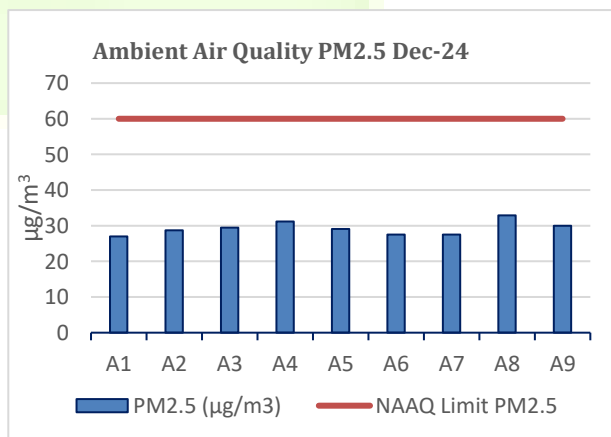
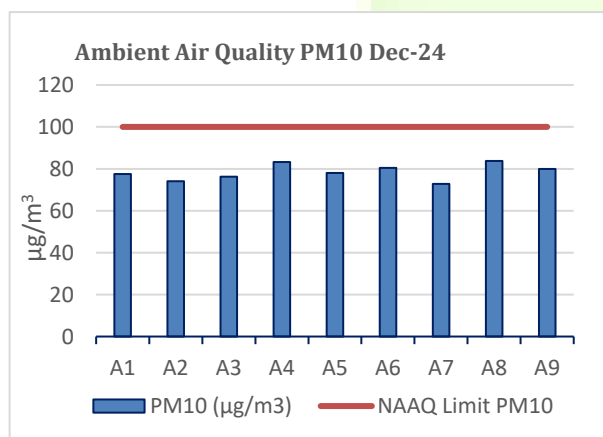
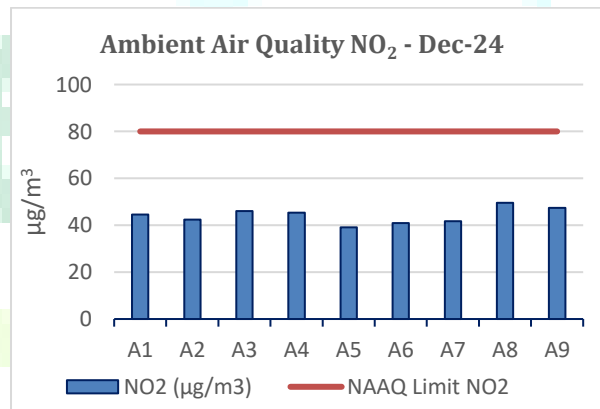
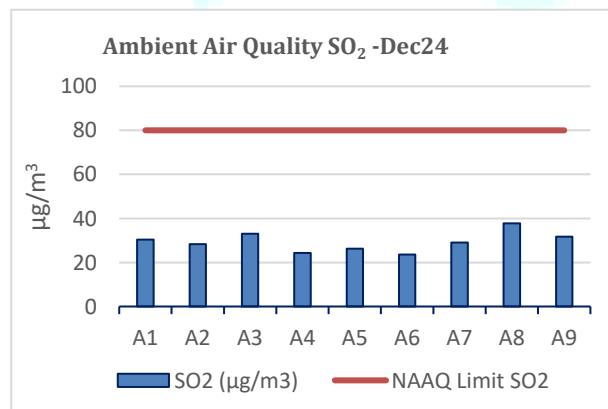
Analysis values except SO₂, NO₂, PM₁₀, PM_{2.5}, Ozone, NH₃ and CO at all 9 locations are found below detection levels (BDL).

Sr. No.	Parameter	Result	Limits as per NAAQS 2009	Unit
1.	Benzo(a) pyrene	< 0.5	01 ***	ng/m ³
2.	Lead as Pb	< 0.5	1.0 *	µg/m ³
3.	Nickel as Ni	< 5.0	20 ***	ng/m ³
4.	Arsenic as As	< 5.0	06 ***	ng/m ³
5.	Benzene [C ₆ H ₆]	< 0.2	05 ***	µg/m ³

[*] 24 hourly monitoring values; [***] annually monitoring values.

Conformity Statement: The monitoring undertaken indicates that Ambient Air Quality Values for monitored parameters are within the levels stipulated under National Ambient Air Quality Standards (NAAQS) 2009 for all 9 locations.

Analysis Data for PM₁₀, PM_{2.5}, SO₂, NO₂, Ozone, NH₃ and CO





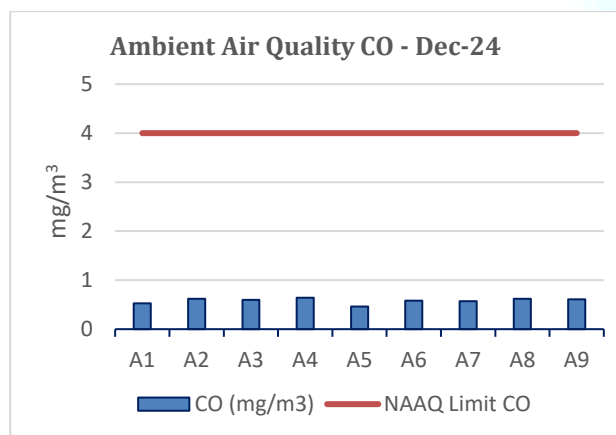
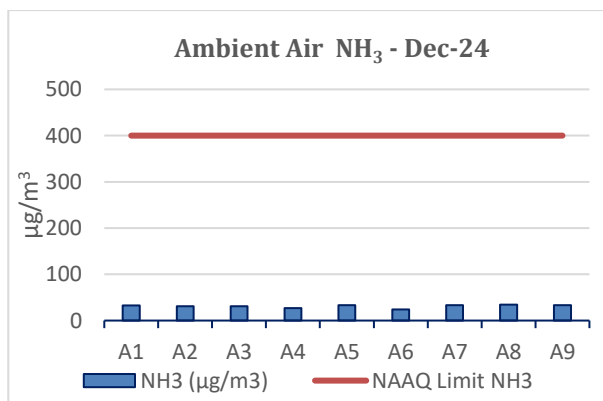
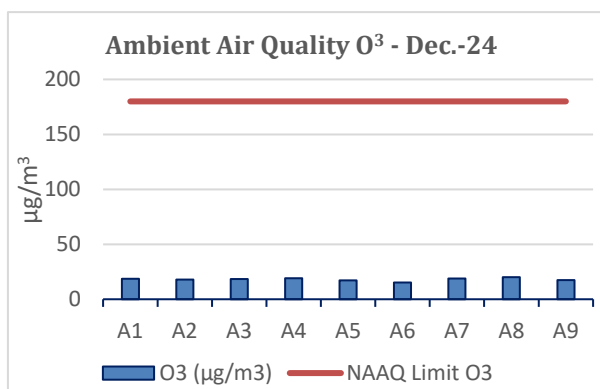
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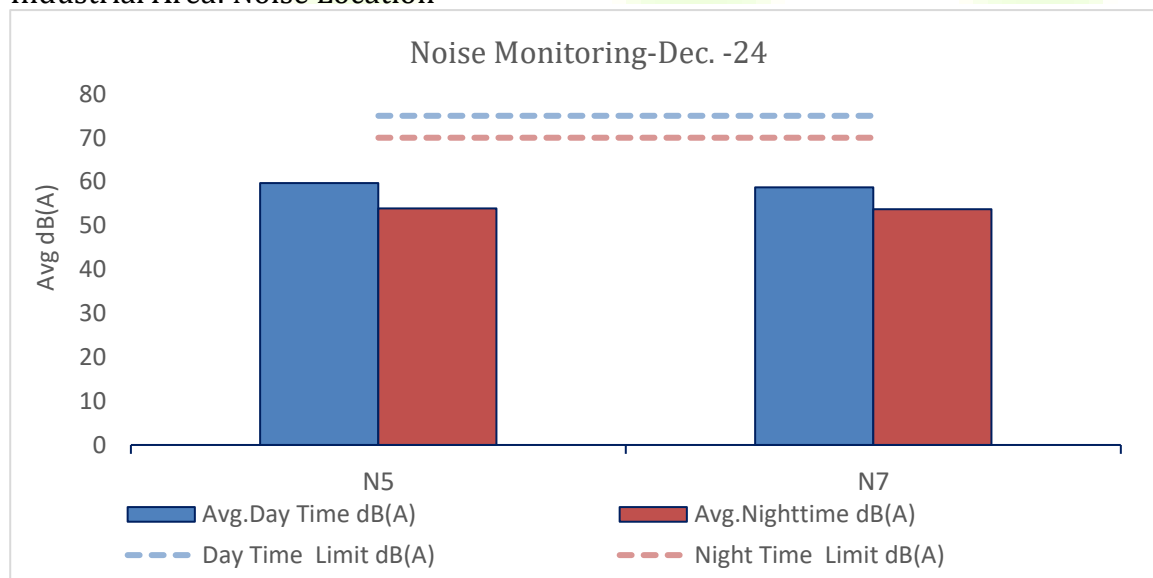


Location Code	Name of the Location
A1	Owale
A2	Pargaon
A3	Ulwe Node
A4	NMIA Project Site
A5	Kille Gavthan
A6	L&T Site Office
A7	Diwale Koliwada
A8	Panvel
A9	Jui

• Ambient Noise

Monitoring Dates & Duration	: 16 th December 24 to 18 th December 24; 24 hourly monitoring
Locations covered (10 Locations)	: Owale, Pargaon, Ulwe node, NMIA Project site, Kille Gavthan, L&T site Office, Diwale Koli Wada, Jui, Panvel & Karanjade

Industrial Area: Noise Location





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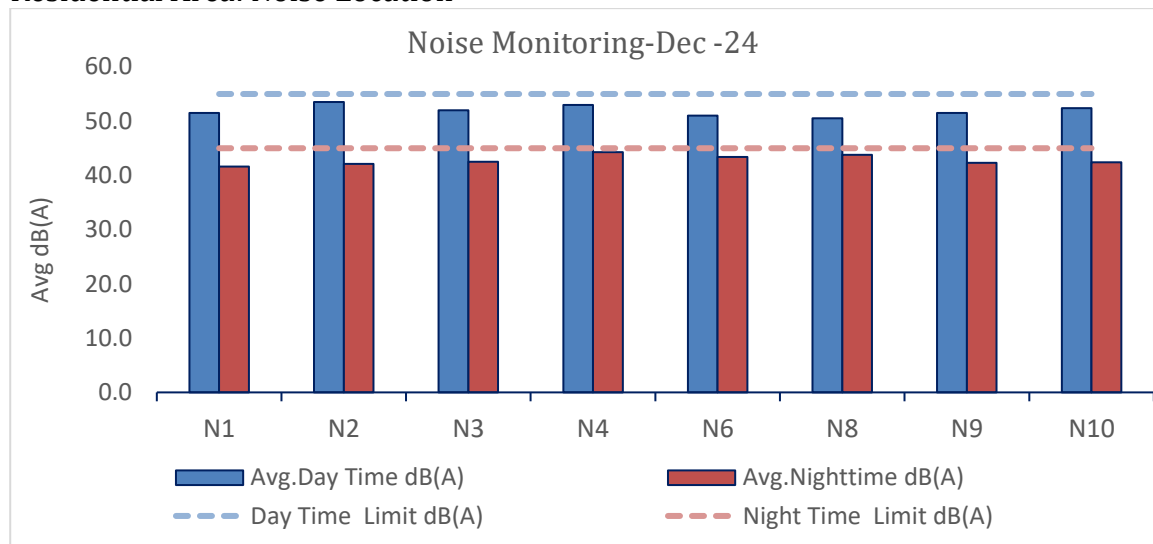
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Residential Area: Noise Location



Location Code	Name of the Location	Noise Levels dB (A)			
		L-day	L-night	Leq Day	Leq Night
Industrial Zone					
N5	NMIA Project Site	59.7	53.9	59.5	53.9
N7	L&T Site Office	58.7	53.7	59.2	53.6
Residential Zone					
N1	Owale	51.5	41.6	52.4	41.8
N2	Pargaon	53.5	42.1	54.1	42.5
N3	Ulwe Node	52.0	42.5	52.9	43.3
N4	Karanjade	53.0	44.3	54.8	44.4
N6	Kille Gavthan	51.0	43.4	54.9	43.4
N8	Diwale Koliwada	50.3	43.8	54.2	43.8
N9	Jui	51.5	42.3	52.6	42.3
N10	Panvel	52.4	42.4	53.8	42.1

Sr. No.	Sources	Noise Levels dB (A)	
		Leq Day	Leq Night
	limits as per EPA Standard		
1.	Rural/Residential Zone (R)	55.0	45.0
2.	Commercial Zone (C)	65.0	55.0
3.	Industrial Zone (I)	75.0	70.0
4.	Silence Zone (S)	50.0	40.0

Conformity Statement: Noise Levels at all the locations were within the stipulated limits as per EPA Standard for Industrial & Residential Areas.



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• Ground & Drinking Water

Monitoring Dates	:	16 th December & 17 th December 24 Grab sampling.
Analysis Dates	:	16 th December 24 to 24 th December 24
Locations covered (6 Locations)	:	Dug well water at Kille Gavthan, Ulwe, Pargoan, Jui, Panvel & Drinking water at NMIA Project New Office.
Parameters covered	:	59 Parameters as per IS 10500:2012 RA:2018 Drinking water Specification (Except Radioactive materials).

Sampling Code	Name of the Location
GW1	Dug Well-Kille Gavthan (Depth of water 12.0 Feet)
GW2	Dug Well-Ulwe (Depth of water 0.5 Feet)
GW3	Dug Well- Pargoan (Depth of water 4.0 Feet)
GW4	Dug Well-Jui (Depth of water 12.0 Feet)
GW5	Dug Well- Panvel (Depth of water 0.5 Feet)
DW1	Tap Water – NMIA Project New Office

Conformity Statement: All Ground water samples are **Pass** as per IS 10500:RA 2018 w. r. t. Chemical analysis & **Fail** for Microbiological analysis. Drinking water sample is **Pass** as per IS 10500:RA 2018 w. r. t. chemical & Microbiological analysis.

• Soil Samples

Monitoring Dates	:	18 th December 24
Analysis Dates	:	19 th December 24 to 31 st December 24
Locations covered (8 Locations)	:	Soil samples at Ulwe, Koli, Kopar, Kombadbhuje, Pargoan, NMIA project office, Chinchpada, Owale.
Parameters covered	:	27 Parameters: pH, Texture class, organic carbon, Electrical Conductivity, Available nitrogen, Available phosphorus, Available K, S ₀₄ , Chloride, Calcium, Magnesium, Fe, Mn, Cu, Hg, Cd, As, Pb, Zn, Al, Ni, Co, Cr, Na, Class

Sampling Code	Name of the Location
S1	Chinchpada
S2	Koli
S3	Kopar
S4	Ulwe
S5	NMIA project Office
S6	Kombadbhuje
S7	Pargaon
S8	Owale

Conclusions: The classification of soil in the study area is mostly clay. The pH in the soil is neutral in nature. As per the results we can infer that the soils have medium phosphorus content and very less quantity of potassium in the collected samples.



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• Marine water

Monitoring Dates	:	20 th December 24 & 21 st J December 24
Analysis Dates	:	21 th December 24 to 31 st December 24
Locations covered (10 Locations)	:	Marine water at Extreme End of Gadhi River, Near Chinchpada Village, Near Jui Village, at Junction Ulwe & Gadhi River, Near Vaghivali River, Near CBD Belapur, Near Vaghivali Creek Junction, Near Rathi Bandar in Panvel creek, Mouth of Panvel Creek, Ulwe River near Ulwe Village.
Parameters covered (chemical)	:	26 Parameters: pH, Temperature, Turbidity, EC, Salinity, DO, BOD, COD, Magnesium, hardness, Alkalinity, Chloride, Sulphate, Fluoride, Sodium, Potassium, total nitrogen, Total phosphorus, Phenol. Fe, Zn, Mg, Mn, Cd, Cr, Hg, Pb
Parameters covered (Biological)	:	Phytoplankton, Zooplankton, Chlorophyll, Diversity Indices of Phytoplankton, Diversity Indices of Zooplankton, phaeophytin
Parameters covered (Microbiological)	:	Coliform by MPN

Sampling Code	Name of the Location
MW1	Extreme end of Gadhi River
MW2	Near Chinchpada village (2 km from W1) in Gadhi River
MW3	Near Jui Village (1.8 km from W2) in Gadhi River
MW4	At Junction of Ulwe and Gadhi Rivers (1.8 km from W3) in Gadhi River
MW5	Near Vaghivali village (2 km from W4) in Gadhi River
MW6	Near CBD Belapur (1.2 km from W5) in Panvel Creek
MW7	Vaghivali Creek Junction (800m from W6) in Gadhi River
MW8	Near Rathi Bunder in Panvel Creek
MW9	Mouth of Panvel Creek
MW10	Ulwe River Near Ulwe Village

Conclusions: The pH in the water samples were observed to be neutral. The marine environment is moderate around NMIA and supports life in it which is evident from studies of Phytoplankton, zooplankton and Benthic organism. Phosphates, & Phenols are within the expected range.

Reshmi

Reshma S. Patil.
(Authorized Signatory)



Himani

Himani P. Joshi.
(Report Reviewed By)

-End of Test Report-