BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

WESTERN ZONE BENCH, PUNE

ORIGINAL APPLICATION No. 71 OF 2025 (WZ)

Kokan Housing & Area Development Board .....Applicants

Versus

Ministry of Environment, Forest &
Climate Change Department and Ors. .....Respondents

AFFIDAVIT IN REPLY ON BEHALF OF MAHARASHTRA POLLUTION CONTROL BOARD i.e. RESPONDENT NO. 10.

I, Upendra Chandrakant Kulkarni, aged 52 adult years, occupation – Service, the Sub Regional Officer, Kalyan-I of the Maharashtra Pollution Control Board at Kalyan, having office address at Siddhivinayak Sankul, 3rd Floor, Near Oak Baug, Station Road, Kalyan – 421 301, do hereby state on solemn affirmation as under –

1. I say and submit that the present Application is filed by the Applicant for seeking directions against the Respondents to declare the correct CEPI Score of the Kalyan/Dombivli Area and also for further processing of its application for grant of Environment Clearance (EC) for its project situated at Survey Nos.86 and 95, Village: Shirdhon, Tal: Kalyan, Dist: Thane.

2. I say and submit that the Central Pollution Control Board (CPCB) had issued Directions vide letter No.B-29012/ESS (CPA)/2015-16/351, dated 26th April, 2016, u/s 18(1)(b) of the Water and Air Acts to undertake Environmental Quality Monitoring and for installation of Ambient Air Quality Monitoring Stations and Real Time Water Quality Monitoring Stations in critically polluted areas. The Dombivli CEPI area includes MIDC Phase-I and MIDC Phase-II was monitored for Ambient Air Quality, Ground and Surface Waters quality and CEPI Score was calculated based on the aforesaid directions issued by CPCB.

3. I say and submit that Maharashtra Pollution Control Board(MPCB) has carried out monitoring of the locations as directed by the CPCB with the additional location of samplings for ambient air, surface and groundwater in consideration with the previous CEPI monitoring and covering the entire CEPI Impact Zone. The pre-monsoon monitoring was carried out during the period of April, 2025 to June, 2025 to verify the Ambient Air Quality, Surface Water and Groundwater.

4. I say and submit that as per the Methodology of CPCB, the CEPI Score is as follows :-

Sr. No.	CEPI Score	Categorization of Industrial Areas
1.	70 and above	Critically Polluted Areas
2.	60 and above – below 70	Severely Polluted Areas
3.	Less than 60	Other Polluted Areas.

5. I say and submit that the Hon'ble National Green Tribunal, Bhopal Bench in Original Application No.93/2024 filed by Pranjal Karera v/s Union of India & Ors. passed an Order dated 9/8/2024 regarding applicability of the General Condition to EIA Notification, 2006 – Category 8 projects, whereby directions were issued to the MoEF & CC to appraise all those building and construction projects, that are located in whole or in part within 5 kms. Of "…. Critically Polluted Areas (CPAs) and Severely Polluted Areas (SPAs) as identified by the CPCB".

6. I say and submit that Respondent-MPCB has prepared a Pre-Monsoon Report (April, 2025 to June, 2025) of Monitoring, Sampling and Analysis for Ambient Air Quality, Surface Water Quality and Groundwater Quality in Critically/Severely and other polluted area. As per the said Report, the overall CEPI Score for the Dombivli Area is 48.3, which comes under Other Polluted Areas as per CEPI Score. MPCB is monitoring and submitting the study reports of pre-monsoon and post-monsoon period to CPCB from time to time. A copy of the said Report is enclosed herewith and marked as an **Annexure-I**.

Solemnly affirmed on this … day of ……..,2025 at ……..

BEFORE ME

KAILAS SAKHARAM PAWAR
ADVOCATE & NOTARY
Regn. No. 46540
Chamber No. 3, N. J. Karia House, Opp. Kalyan Court Gate,Kalyan (W.) 421301, Dist. Thane.
Mob.: 9920312104, 8828505898.

For and on behalf of Maharashtra Pollution Control Board,

(Upendra C. Kulkarni)
Sub Regional Officer, Kalyan-I

NOTED & REGISTERED
Sr. No.: 0775 Date: 22 AUG 2025

NOTARY Adv. KAILAS S. PAWAR KALYAN, DIST. THANE (MAH.) Regn. No. 46540 Exp. Dt. 12/03/2030 GOVT. OF INDIA

MONITORING, SAMPLING AND ANALYSIS FOR AMBIENT AIR QUALITY, SURFACE WATER QUALITY AND GROUND WATER QUALITY IN CRITICALLY/SEVERELY/OTHER POLLUTED AREAS

DOMBIVALI

Pre-Monsoon (April 2025 – June 2025)

MAHARASHTRA

LiFE
Lifestyle for Environment

MAHARASHTRA POLLUTION CONTROL BOARD
महाराष्ट्र प्रदूषण नियंत्रण मंडळ

Index

ABBREVIATIONS

APHA	American Public Health Association
ASTM	American Society for Testing and Materials
BIS	Bureau of Indian Standards
BLQ	Below the Limit of Quantification
CAAQMS	Continuous Ambient Air Quality Monitoring Station
CEMS	Continuous Emission Monitoring System
CEPI	Comprehensive Environmental Pollution Index
CETP	Common Effluent Treatment Plant
CPA	Critically Polluted Area
CPCB	Central Pollution Control Board
EPA	Environmental Protection Act, 1986
GDP	Gross Domestic Product
MIDC	Maharashtra Industrial Development Corporation
MPCB	Maharashtra Pollution Control Board
NAAQS	National Ambient Air Quality Standard
NWMP	National Water Quality Monitoring Program
SPA	Severely Polluted Area
VOCs	Volatile Organic Compounds
WHO	World Health Organisation
ZLD	Zero Liquid Discharge

1. Executive Summary

The Dombivali CEPI area includes MIDC Phase I and MIDC Phase II and was monitored for Ambient Air Quality, Ground and Surface Waters quality and CEPI Score was calculated based on the Latest directions 120 of Letter No. B-29012/ESS (CPA)/2015-16 dated 26th April 2016 of Central Pollution Control Board (CPCB). Maharashtra Pollution Control Board (MPCB) has carried out monitoring at CPCB location with the additional location of samplings for ambient air, surface and Groundwater in consideration with the previous CEPI monitoring and covering the entire CEPI Impact Zone. The pre-monsoon monitoring was carried out during the period of April to June 2025 to verify the Ambient Air Quality, Surface water and Groundwater.

The Ambient Air Quality Monitoring stations were strategically selected considering the upwind and crosswind directions within the CEPI impact area to ensure representative data collection. The concentrations of PM_{10} and $PM_{2.5}$ are found to be within the permissible limits prescribed by the National Ambient Air Quality Standards (NAAQS), 2009. In surface water samples, elevated concentrations of Total Kjeldhal Nitrogen (TKN) and Biological Oxygen Demand (BOD) were observed at a few locations, exceeding acceptable limits. However, groundwater quality in the study area is found to be within acceptable limits for all monitored parameters.

As per the study conducted by the Central Pollution Control Board (CPCB) in March 2018, the CEPI score for the Dombivali region, calculated under the revised CEPI 2016 methodology, was 69.67 (Ambient Air – 62.00, Surface Water – 63.50, Land – 27.25). The primary contributors to the CEPI score in 2018 were high concentrations of PM_{10} and $PM_{2.5}$ in ambient air. In contrast, the present study reveals that the concentrations of these particulate matters are now well within the prescribed standards, indicating a significant improvement in air quality.

The Maharashtra Pollution Control Board (MPCB) has implemented a series of pollution control measures and action plans over the years, which have contributed to a notable reduction in pollution levels. These efforts have resulted in a significant drop in the CEPI score—from 69.67 in 2018 to 48.30 in June 2025—reflecting a decrease of approximately 31%.

According to the present assessment conducted during the Pre-Monsoon 2025 period under the revised CEPI guidelines (2016), the sub-scores are as follows: Ambient Air – 31.0, Surface Water – 42.8, and Groundwater – 30.8. The overall CEPI score for the Dombivali region stands at 48.3, highlighting considerable progress in environmental quality across all three components

2. Introduction

As of 2025, the industrial sector remains a cornerstone of national economic progress, driving production, infrastructure development, employment generation, exports, and capacity utilization. Industries play a critical role in strengthening government revenue, advancing international trade, and enhancing social development. Their contribution significantly influences a country's GDP, and by extension, its global economic standing. According to the World GDP Rankings 2024, India is positioned as the fifth-largest economy globally, underscoring the strategic importance of its industrial growth. Sustainable Development Goals (SDGs), particularly Goal 8: Decent Work and Economic Growth and Goal 9: Industry, Innovation, and Infrastructure, emphasize the need for balanced industrial development.

However, the benefits of industrialization come with a heavy environmental cost. In 2025, industrial pollution continues to pose serious threats to air, water, and soil quality. The indiscriminate discharge of untreated industrial effluents contaminates drinking water sources, endangering human health, aquatic ecosystems, and animal life. Air pollution caused by emissions from industries has been directly linked to respiratory and cardiovascular diseases, especially among vulnerable populations such as children and the elderly. According to the World Health Organization (WHO), environmental pollution accounts for nearly 9 million premature deaths annually, with over 90% of the global population breathing air that exceeds safe pollution limits. Additionally, approximately 2 billion people still rely on drinking water sources contaminated with faecal matter, contributing to widespread outbreaks of waterborne diseases like cholera and dysentery.

The ecological impacts are equally alarming. Industrial pollution has led to the destruction of habitats, a decline in biodiversity, and the disruption of delicate ecosystems. Toxic substances can cause reproductive anomalies, genetic mutations, and behavioural changes in wildlife, threatening species survival. Vegetation exposed to pollutants suffers from reduced photosynthesis, stunted growth, and increased vulnerability to pests and diseases—factors that ultimately undermine food security and ecological stability.

To combat these challenges, robust environmental governance is more critical than ever. Effective policy frameworks must regulate industrial operations through continuous pollution monitoring, stringent enforcement, and comprehensive environmental impact assessments (EIAs). Conservation strategies aimed at preserving biodiversity must be regularly updated to reflect evolving threats. A sustainable industrial future requires coordinated efforts between government agencies, industries, and communities, underpinned by advanced technologies and transparent regulatory mechanisms.

Within this framework, the Comprehensive Environmental Pollution Index (CEPI) has emerged as a pivotal tool in India's environmental management strategy. As of 2025, CEPI continues to serve as a standardized system for evaluating pollution levels in industrial clusters across the country. Developed collaboratively by scientists, regulatory authorities, and community stakeholders, CEPI

facilitates the identification of pollution hotspots and the implementation of corrective measures. By integrating air, water, and land pollution parameters, CEPI enables data-driven decision-making for resource allocation and regulatory intervention.

In Maharashtra, a state with thriving industrial zones and increasing urbanization, the role of CEPI is particularly significant. The assessment and monitoring of environmental parameters in heavily industrialized areas like Chembur (Mumbai) and Dombivali MIDC (Phase I & II) help identify the pressing challenges posed by pollution. Established in 1964, the Dombivali industrial cluster has seen rapid growth in chemical, textile, and engineering sectors, resulting in serious environmental concerns from emissions, effluents, and solid waste disposal, particularly given its proximity to residential neighbourhoods.

This report presents a detailed analysis of pollution in these areas, following the revised CEPI methodology (2016). The study includes comprehensive monitoring, sampling, and analysis of ambient air, surface water, and groundwater quality to assess the environmental burden in Dombivali. The index-based framework helps quantify the extent of pollution, identify critical sources and pathways, and guide regulatory actions.

Despite ongoing challenges, CEPI-driven strategies have created a foundation for structured, long-term pollution mitigation. Through regulatory enforcement, stakeholder collaboration, sustainable industrial practices, and urban planning reforms, this report aims to support actionable insights for ecological restoration and a cleaner, healthier future for Maharashtra's industrial regions.

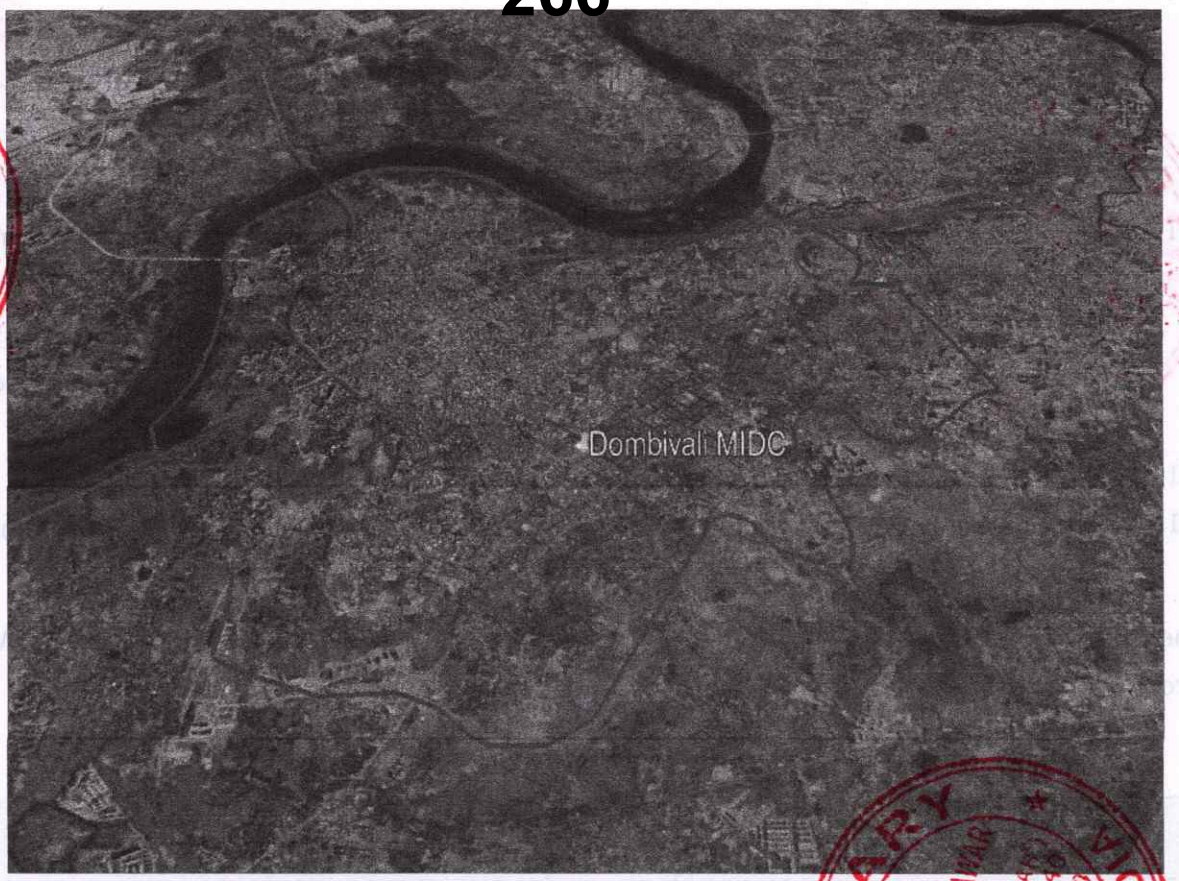


Fig. Dombivali Region CEPI Monitoring Zone

3. Scope of Work

The major scope of work includes:

I. The scope of the present study is to perform three (3) rounds of "Monitoring, Sampling and Analysis for Ambient Air Quality, VOCs in Ambient Air, Surface Water Quality & Groundwater Quality in selected Pollution Industrial Areas (PIAs) of Dombivali, Maharashtra" with a gap of one or two days. The analysis of the collected samples was carried out by the standard methods (CPCB, BIS, APHA, USEPA).

II. To Collect health-related data in the CEPI region.

III. To calculate the Comprehensive Environmental Pollution Index (CEPI) Score as per Revised CEPI-2016 issued by Central Pollution Control Board (CPCB).

The sampling details and frequency of sampling in Ambient Air, VOCs, Surface Water and Groundwater are given in Table 3.1 and Table 3.2 respectively.

Table 3.1 Sampling Details of Dombivali

Sampling Criteria	Number of sites	Total Sites	Monitoring Parameters
Ambient Air Quality	• Phase I-04 • Phase II-04	**08**	PM_{10}, $PM_{2.5}$, SO_2, NO_2, NH_3, O_3, C_6H_6, CO, BAP, Pb, Ni, As
Volatile Organic Compounds (VOCs)	• Phase I-02 • Phase II-02	**04**	Dichloromethane, Chloroform, Carbon Tetrachloride, Trichloroethylene, Bromodichloromethane, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,3-Dichlorobenzene, 1,2-Dichlorobenzene, 1,2-Dibromo-3-Chloropropane, Naphthalene, Bromobenzene,1,2,4-Trimethylbenzene, 2-Chlorotoluene, Tert-Butylbenzene, SEC-Butylbenzene, P-Isopropyl toluene, M-Xylene, P-Xylene, Styrene, Cumene 1,2,3-Trichloropropane, N-Propyl benzene, Dibromochloromethane, 1,2-Dibromoethane, Chlorobenzene, 1,1,1,2-Tetrachloroethane, Ethylbenzene, 1,1-Dichloropropylene, 1,2-Dichloroethane, 1,2-Dichloropropane, Trans-1,3-Dichloropropene, CIS 1,3-Dichloropropene, 1,1,2-Trichloroethane, Tetrachloroethylene, 1,3,5-Trimethylbenzene, N-Butylbenzene, 1,2,3-Trichlorobenzene, Hexachlorobutadiene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, Dibromo methane, Toluene, O-Xylene, Bromoform, 1,1,2,2-Tetrachloroethane, 4-Chlorotoluene, 1,1-Dichloroethylene, Trans-1,2-Dichloroethylene, 1,1-Dichloroethane, CIS-1,2-Dichloroethylene, Bromochloromethane, 1,1,1-Trichloroethane

Sampling Criteria	Number of sites	Total Sites	Monitoring Parameters
Water Quality Monitoring	**Surface water** • Phase I-06 • Phase II-06	**12**	**(i) Simple Parameters** Sanitary Survey, General Appearance, Colour, Smell, Transparency and Ecological. **(ii) Regular Monitoring Parameters** pH, O & G, Suspended Solids, DO, COD, BOD, TDS, Electrical Conductivity, Total Dissolved Solids, Nitrite–Nitrogen, Nitrate-Nitrogen, (NO_2+NO_3) total nitrogen, Free Ammonia, Total Residual Chlorine, Cyanide, Fluoride, Chloride, Sulphate, Sulphides, Total Hardness, Dissolved Phosphates, SAR, Total Coliforms, Faecal Coliform **(iii) Special Parameters** Total Phosphorous, TKN, Total Ammonia (NH_4+NH_3)-Nitrogen, Phenols, Surface Active Agents, Anionic detergents, Organo-Chlorine Pesticides, PAH, PCB and PCT, Zinc, Nickel, Copper, Hexa-valent Chromium, Chromium (Total), Arsenic (Total), Lead, Cadmium, Mercury, Manganese, Iron, Vanadium, Selenium, Boron **(iv) Bioassay (zebra Fish)** Test – For specified samples only.
	Groundwater • Phase I-03 • Phase II-03	**06**	

Table 3.2 Frequency of Sampling

	Parameter	Round of Sampling	Frequency in Each Round
A	**Ambient Air Quality Monitoring**		
1.	Particulate Matter (size less than 10 µm) or PM_{10}	03	3 Shifts of 8 hrs each
2.	Particulate Matter (size less than 2.5 µm) or $PM_{2.5}$	03	1 Shift of 24 hrs
3.	Sulphur Dioxide (SO_2)	03	6 Shifts of 4 hrs each
4.	Nitrogen Dioxide (NO_2)	03	6 Shifts of 4 hrs each
5.	Ammonia (NH_3)	03	6 Shifts of 4 hrs each
6.	Ozone (O_3)	03	24 Shifts of 1 hr each
7.	Benzene (C_6H_6)	03	1 Shifts of 24 hrs
8.	Carbon Monoxide (CO)	03	24 Shifts of 1 hr each
9.	Benzo (a) Pyrene (BaP) – particulate phase only	03	3 Shifts of 8 hrs each
10.	Lead (Pb)	03	3 Shifts of 8 hrs each
11.	Arsenic (As)	03	3 Shifts of 8 hrs each
12.	Nickel (Ni)	03	3 Shifts of 8 hrs each
B	**Volatile Organic Compounds (VOCs)**		
	As mentioned in Table 3.1	03	3 Shifts of 24 hrs each
C	**Groundwater**		
	As mentioned in Table 3.1	03	01 sample at each round
D	**Surface Water**		
	As mentioned in Table 3.1	03	01 sample at each round

4. Methodology

The present report is based on the revised Comprehensive Environmental Pollution Index (CEPI) version 2016. The index captures the various dimensions of the environment including air, water and land. Comprehensive Environmental Pollution Index (CEPI) is a rational number which is used to characterize the environmental quality at a given location. It is three-step process based on the algorithm of Source, pathway and Receptor.

Source → Pathway → Receptor

Ambient air stations, Surface water locations and Groundwater locations were decided by the respective regional officers. The sampling was done in 3 rounds with an interval of one or two days at each location. Sampling has been done at the potential polluted areas so as to arrive at the CEPI. This will further help the authorities to monitor the areas in order to improve the current status of their environmental components such as air and water quality data, ecological damage and visual environmental conditions.

Methodology for sampling, preservation and analysis have been done according to the CPCB/ EPA/ APHA/ IS/ ASTM standard methods for the samples.

AIR ENVIRONMENT

5. Air Environment

For studying the Air Environment of Dombivali area, monitoring stations were identified considering the upwind and cross wind direction and all 12 parameters as per the notification of National Ambient Air Quality Standards (NAAQS) were determined.

Kindly note: Volatile Organic Compounds (VOCs) concentration is not detected in most of the Air samples collected; hence it is not shown in the graphs.

1. **MIDC Phase I:** In MIDC Phase I of Dombivali four locations have been monitored for Ambient Air Quality (AAQ). The AAQ monitoring was carried out by taking samples in triplicate on 07th May to 12th May 2025. All twelve parameters are observed well within the limits at all 4 locations monitored.

Table 5.1 Phase I - Details of Sampling Location of Ambient Air Quality Monitoring

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Near main gate Gharda Chemicals	19°13'10.45"N	73°6'50.33"E	07.05.2025	09.05.2025	11.05.2025
2.	Near main gate DEBESA CETP	19°13'0.45"N	73°6'18.07"E	07.05.2025	09.05.2025	11.05.2025
3.	Near main gate Balkrishna Industries Ltd.	19°12'36.40"N	73°6'41.92"E	07.05.2025	09.05.2025	11.05.2025
4.	Near main gate Sagar Ice & Cold Storage Pvt. Ltd.	19°12'55.54"N	73°6'26.29"E	07.05.2025	09.05.2025	11.05.2025

Table 5.2 Phase I - Details of Sampling Location of Volatile Organic Compounds (VOCs) Monitoring

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Near main gate Gharda Chemicals	19°13'10.45"N	73°6'50.33"E	07.05.2025	09.05.2025	11.05.2025
2.	Near main gate DEBESA CETP	19°13'0.45"N	73°6'18.07"E	07.05.2025	09.05.2025	11.05.2025

Fig. Geographical Locations of Ambient Air Quality Monitoring MIDC Dombivali Phase I

Fig. Geographical Locations of VOCs Monitoring MIDC Dombivali Phase I

Table 5.3 Phase I - Results of Ambient Air Quality Monitoring

Parameters	Unit	Results			
		Gharda Chemicals	DEBESA CETP	Balkrishna Industries Ltd.	Sagar Ice & Cold Storage Pvt. Ltd.
Sulphur Dioxide (SO_2)	µg/m³	BLQ	BLQ	BLQ	BLQ
Nitrogen Dioxide (NO_2)	µg/m³	24	32	23	31
Particulate Matter (size less than 10 µm) or PM_{10}	µg/m³	47	42	38	38
Particulate Matter (size less than 2.5 µm) or $PM_{2.5}$	µg/m³	12	12	11	11
Ozone (O_3)	µg/m³	BLQ	BLQ	BLQ	BLQ
Lead (Pb)	µg/m³	BLQ	BLQ	BLQ	BLQ
Carbon Monoxide (CO) (1 h)	mg/m³	1.2	1.3	1.3	1.3
Carbon Monoxide (CO) (8 h)	mg/m³	2	2	1	2
Ammonia (NH_3)	µg/m³	23	BLQ	26	25
Benzene (C_6H_6)	µg/m³	2.0	1.9	2.1	1.9
Benzo (a) Pyrene (BaP) – particulate phase only	ng/m³	BLQ	BLQ	BLQ	BLQ
Arsenic (As)	ng/m³	BLQ	BLQ	BLQ	BLQ
Nickel (Ni)	ng/m³	3.16	3.18	BLQ	BLQ

Table 5.4 Phase I - Volatile Organic Compounds (VOCs) in Ambient Air Results

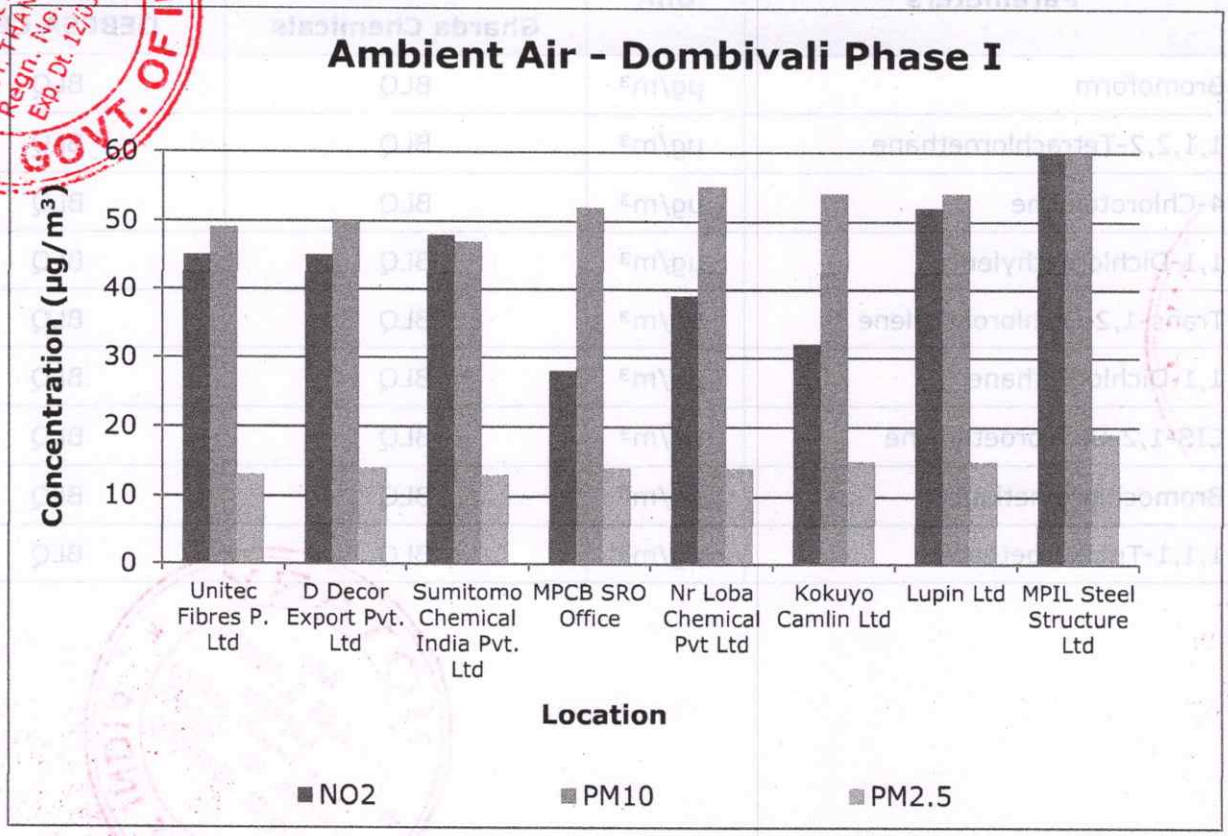
Parameters	Unit	Results	
		Gharda Chemicals	DEBESA CETP
Dichloromethane	µg/m³	0.8	3.1
Chloroform	µg/m³	BLQ	BLQ
Carbon Tetrachloride	µg/m³	BLQ	BLQ
Trichloroethylene	µg/m³	BLQ	BLQ
Bromodichloromethane	µg/m³	BLQ	BLQ
1,3-Dichloropropane	µg/m³	BLQ	BLQ
1,4-Dichlorobenzene	µg/m³	BLQ	BLQ
1,3-Dichlorobenzene	µg/m³	BLQ	BLQ
1,2-Dichlorobenzene	µg/m³	BLQ	BLQ
1,2-Dibromo-3-Chloropropane	µg/m³	BLQ	BLQ
Naphthalene	µg/m³	BLQ	BLQ
Bromobenzene	µg/m³	BLQ	BLQ

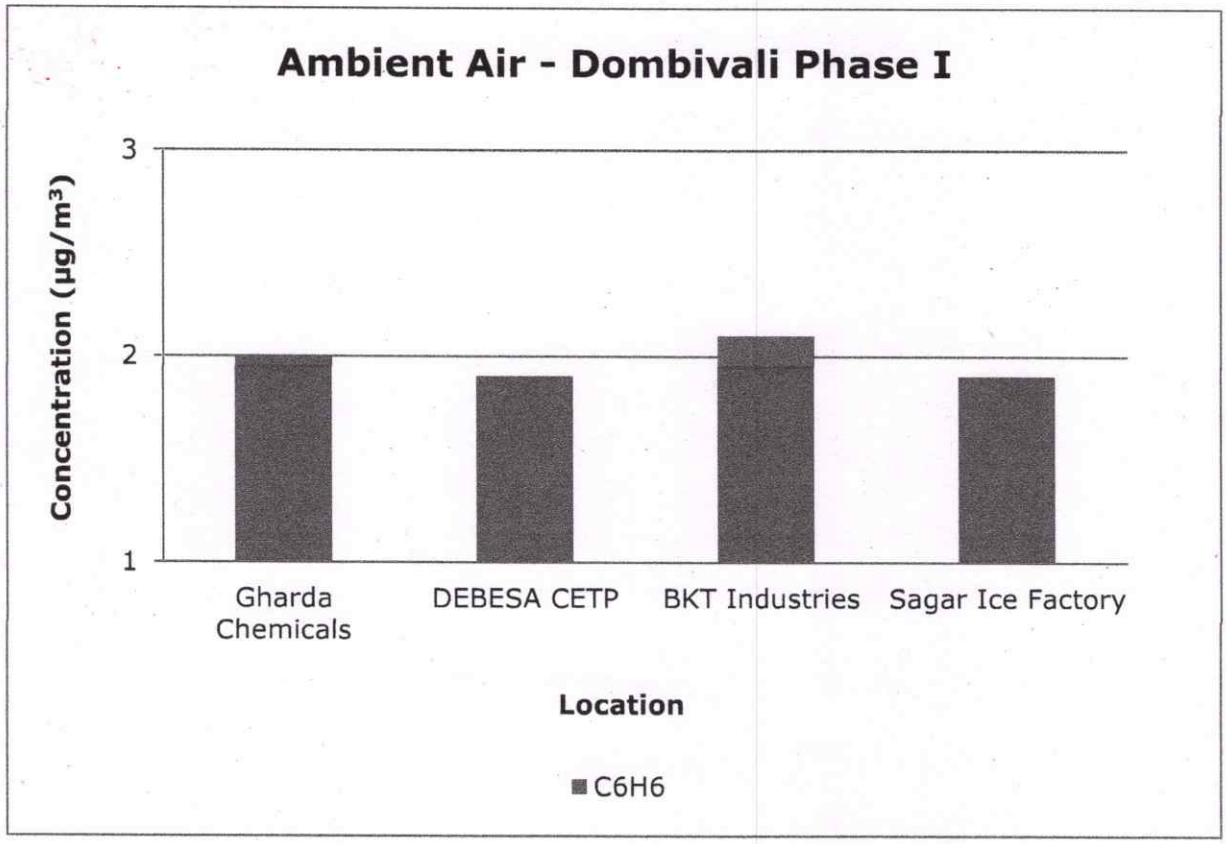
Parameters	Unit	Results	
		Gharda Chemicals	DEBESA CETP
1,2,4-Trimethylbenzene	µg/m³	BLQ	BLQ
2-Chlorotoluene	µg/m³	BLQ	BLQ
Tert-Butylbenzene	µg/m³	BLQ	BLQ
SEC-Butylbenzene	µg/m³	BLQ	BLQ
P-Isopropyl toluene	µg/m³	BLQ	BLQ
M-Xylene	µg/m³	BLQ	BLQ
P-Xylene	µg/m³	BLQ	1.43
Styrene	µg/m³	BLQ	0.628
Cumene	µg/m³	BLQ	BLQ
1,2,3-Trichloropropane	µg/m³	BLQ	BLQ
N-Propyl benzene	µg/m³	BLQ	BLQ
Dibromochloromethane	µg/m³	BLQ	BLQ
1,2-Dibromoethane	µg/m³	BLQ	BLQ
Chlorobenzene	µg/m³	BLQ	BLQ
1,1,1,2-Tetrachloroethane	µg/m³	BLQ	BLQ
Ethylbenzene	µg/m³	BLQ	BLQ
1,1-Dichloropropylene	µg/m³	BLQ	BLQ
1,2-Dichloroethane	µg/m³	BLQ	BLQ
1,2-Dichloropropane	µg/m³	BLQ	BLQ
Trans-1,3-Dichloropropene	µg/m³	BLQ	BLQ
CIS 1,3-Dichloropropene	µg/m³	BLQ	BLQ
1,1,2-Trichloroethane	µg/m³	BLQ	BLQ
Tetrachloroethylene	µg/m³	BLQ	BLQ
1,3,5-Trimethylbenzene	µg/m³	BLQ	BLQ
N-Butylbenzene	µg/m³	BLQ	BLQ
1,2,3-Trichlorobenzene	µg/m³	BLQ	BLQ
Hexachlorobutadiene	µg/m³	BLQ	BLQ
1,2,4-Trichlorobenzene	µg/m³	BLQ	BLQ
2,2-Dichloropropane	µg/m³	BLQ	BLQ
Dibromo methane	µg/m³	BLQ	BLQ
Toluene	µg/m³	0.854	2.525
O-Xylene	µg/m³	BLQ	BLQ

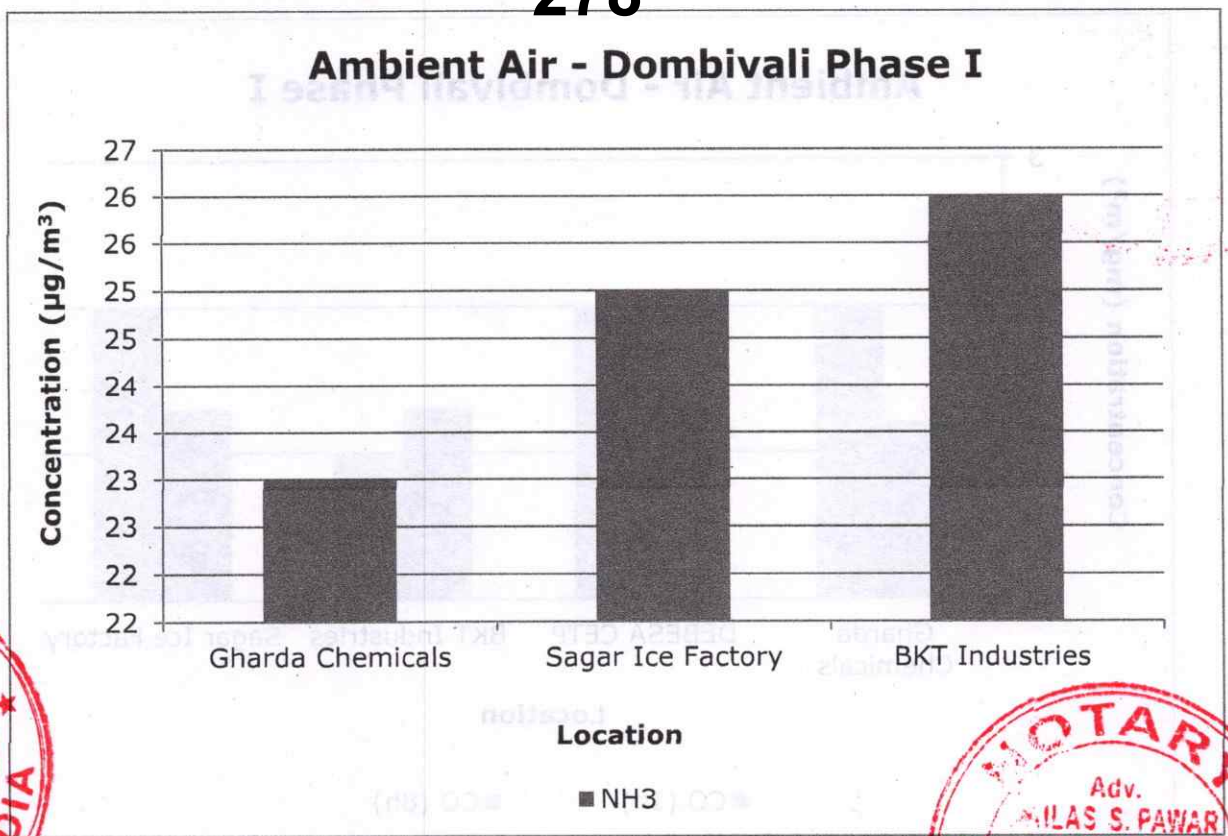
Parameters	Unit	Results	
		Gharda Chemicals	DEBESA CETP
Bromoform	µg/m³	BLQ	BLQ
1,1,2,2-Tetrachloroethane	µg/m³	BLQ	BLQ
4-Chlorotoluene	µg/m³	BLQ	BLQ
1,1-Dichloroethylene	µg/m³	BLQ	BLQ
Trans-1,2-Dichloroethylene	µg/m³	BLQ	BLQ
1,1-Dichloroethane	µg/m³	BLQ	BLQ
CIS-1,2-Dichloroethylene	µg/m³	BLQ	BLQ
Bromochloromethane	µg/m³	BLQ	BLQ
1,1,1-Trichloroethane	µg/m³	BLQ	BLQ

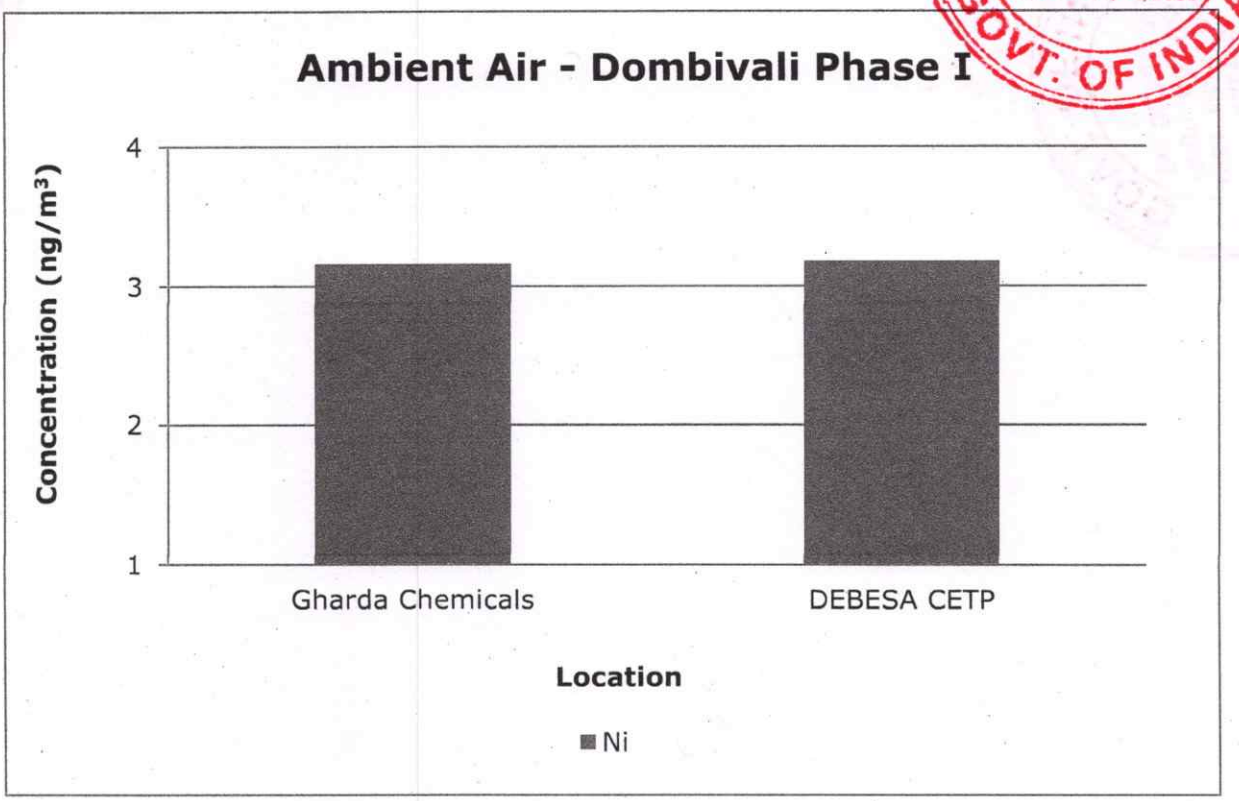
NOTARY Adv. SHILAS S. PAWAR KALYAN. DIST. THANE (MAH.) Regn. No. 46540 Exp. Dt. 12/03/2030 GOVT. OF INDIA

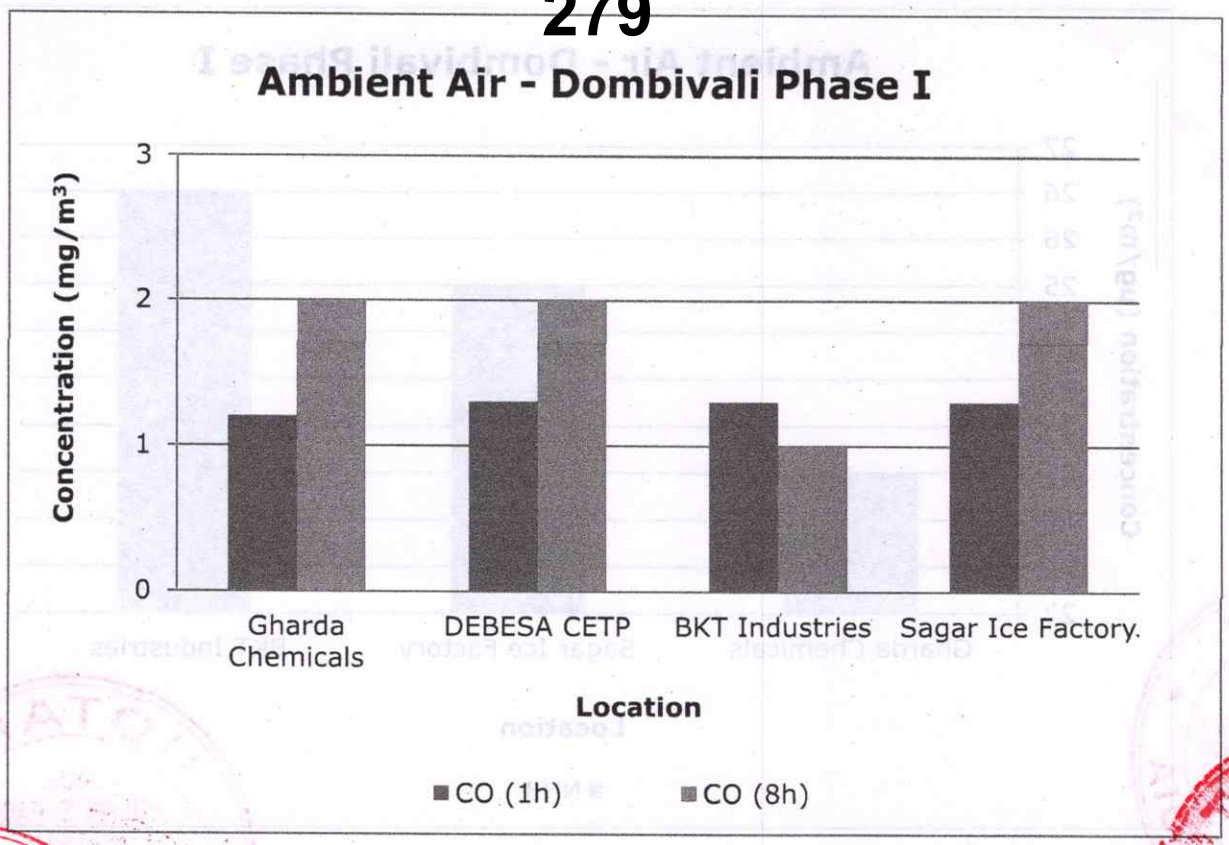
Graphs - Ambient Air Quality of MIDC Dombivali Phase I











2. **MIDC Phase II:** In MIDC Phase II of Dombivali also all 4 locations monitored. Samples were taken in triplicate from 07th May to 12th May 2025. Concentration of all the parameters were found within the limits mentioned under NAAQS, 2009.

Table 5.5 Phase II - Details of Sampling Location of Ambient Air Quality Monitoring

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Near main gate Dombivali Common Effluent Treatment Plant	19°12'17.37"N	73° 5'58.34"E	07.05.2025	09.05.2025	11.05.2025
2.	Behind Connect well Industries Pvt. Ltd.	19°11'37.12"N	73° 5'39.80"E	07.05.2025	09.05.2025	11.05.2025
3.	Near main gate Metropolitan Eximchem Ltd.	19°12'7.89"N	73° 5'56.18"E	07.05.2025	09.05.2025	11.05.2025
4.	Near main gate Apartim Equipment	19°12'22.33"N	73° 6'1.31"E	07.05.2025	09.05.2025	11.05.2025

Table 5.6 Phase II - Details of Sampling Location of Volatile Organic Compounds (VOCs) Monitoring

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Near main gate Dombivali Common Effluent Treatment Plant	19°12'17.37"N	73° 5'58.34"E	07.05.2025	09.05.2025	11.05.2025
2.	Behind Connect well Industries Pvt. Ltd.	19°11'37.12"N	73° 5'39.80"E	07.05.2025	09.05.2025	11.05.2025

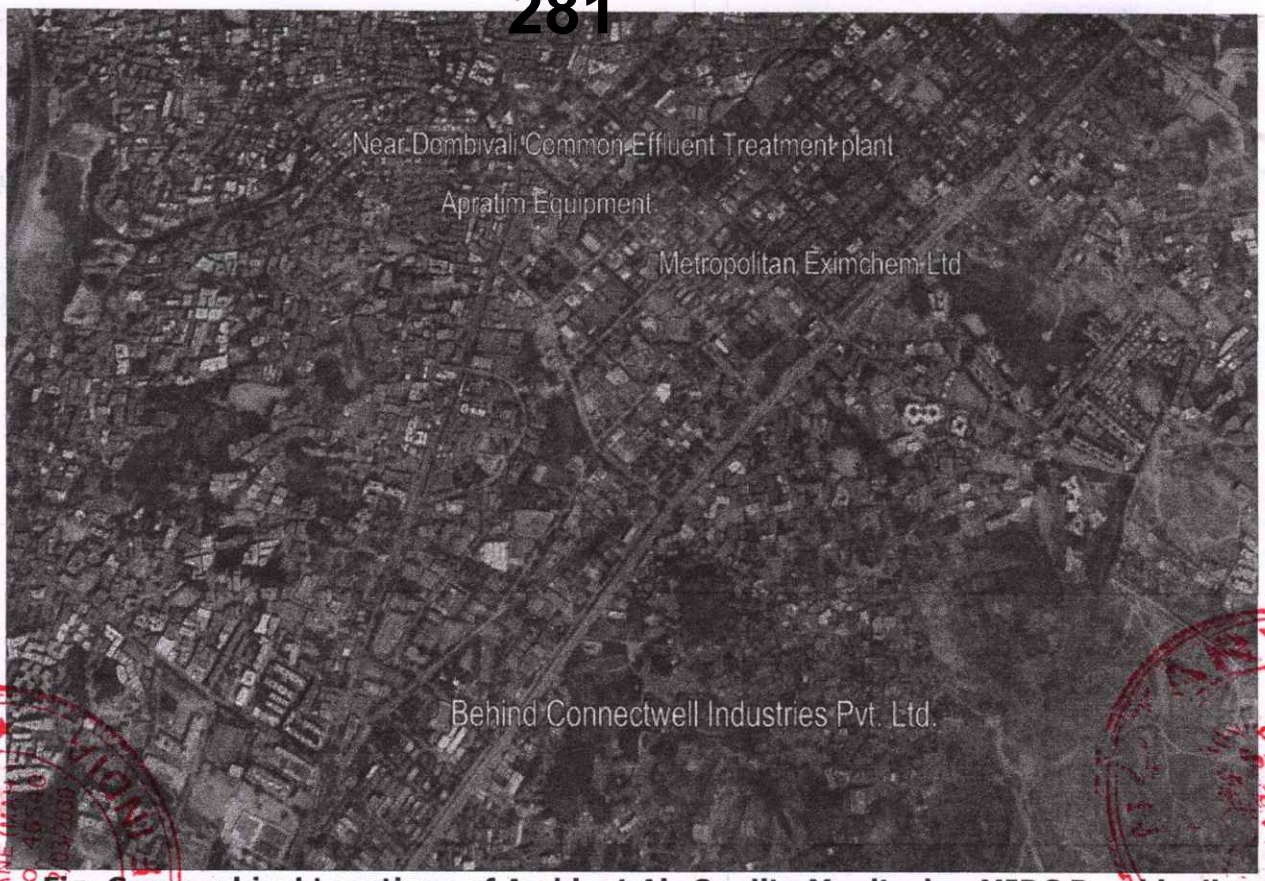


Fig. Geographical Locations of Ambient Air Quality Monitoring MIDC Dombivali Phase II

Fig. Geographical Locations of VOCs Monitoring MIDC Dombivali Phase II

Table 5.7 Phase II - Results of Ambient Air Quality Monitoring

Parameters	Unit	Results			
		Dombivali CETP	Connect well Industries Pvt. Ltd.	Metropolitan Eximchem Ltd.	Apartim Equipment
Sulphur Dioxide (SO_2)	µg/m³	BLQ	BLQ	BLQ	BLQ
Nitrogen Dioxide (NO_2)	µg/m³	17	19	24	21
Particulate Matter (size less than 10 µm) or PM_{10}	µg/m³	41	42	44	42
Particulate Matter (size less than 2.5 µm) or $PM_{2.5}$	µg/m³	12	12	13	12
Ozone (O_3)	µg/m³	BLQ	BLQ	BLQ	BLQ
Lead (Pb)	µg/m³	BLQ	BLQ	BLQ	BLQ
Carbon Monoxide (CO) (1 h)	mg/m³	1.2	1.1	1.4	1.1
Carbon Monoxide (CO) (8 h)	mg/m³	2	1	2	1
Ammonia (NH_3)	µg/m³	22	BLQ	24	24
Benzene (C_6H_6)	µg/m³	2.0	2.0	2.0	1.9
Benzo (a) Pyrene (BaP) – particulate phase only	ng/m³	BLQ	BLQ	BLQ	BLQ
Arsenic (As)	ng/m³	BLQ	BLQ	BLQ	BLQ
Nickel (Ni)	ng/m³	3.71	3.41	3.62	4.02

Table 5.8 Phase I - Volatile Organic Compounds (VOCs) in Ambient Air Results

Parameters	Unit	Results	
		Dombivali CETP	Connect well Industries Pvt. Ltd.
Dichloromethane	µg/m³	BLQ	BLQ
Chloroform	µg/m³	BLQ	BLQ
Carbon Tetrachloride	µg/m³	BLQ	BLQ
Trichloroethylene	µg/m³	BLQ	BLQ
Bromodichloromethane	µg/m³	BLQ	BLQ
1,3-Dichloropropane	µg/m³	BLQ	BLQ
1,4-Dichlorobenzene	µg/m³	BLQ	BLQ
1,3-Dichlorobenzene	µg/m³	BLQ	BLQ
1,2-Dichlorobenzene	µg/m³	BLQ	BLQ
1,2-Dibromo-3-Chloropropane	µg/m³	BLQ	BLQ
Naphthalene	µg/m³	BLQ	BLQ
Bromobenzene	µg/m³	BLQ	BLQ

Parameters	Unit	Results	
		Dombivali CETP	Connect well Industries Pvt. Ltd.
1,2,4-Trimethylbenzene	µg/m³	BLQ	BLQ
2-Chlorotoluene	µg/m³	BLQ	0.615
Tert-Butylbenzene	µg/m³	BLQ	1.45
SEC-Butylbenzene	µg/m³	BLQ	1.31
P-Isopropyl toluene	µg/m³	BLQ	BLQ
M-Xylene	µg/m³	BLQ	BLQ
P-Xylene	µg/m³	1.178	BLQ
Styrene	µg/m³	BLQ	BLQ
Cumene	µg/m³	BLQ	BLQ
1,2,3-Trichloropropane	µg/m³	BLQ	BLQ
N-Propyl benzene	µg/m³	BLQ	BLQ
Dibromochloromethane	µg/m³	BLQ	BLQ
1,2-Dibromoethane	µg/m³	BLQ	1.01
Chlorobenzene	µg/m³	BLQ	BLQ
1,1,1,2-Tetrachloroethane	µg/m³	BLQ	0.755
Ethylbenzene	µg/m³	BLQ	BLQ
1,1-Dichloropropylene	µg/m³	BLQ	BLQ
1,2-Dichloroethane	µg/m³	BLQ	BLQ
1,2-Dichloropropane	µg/m³	BLQ	BLQ
Trans-1,3-Dichloropropene	µg/m³	BLQ	1.19
CIS 1,3-Dichloropropene	µg/m³	BLQ	BLQ
1,1,2-Trichloroethane	µg/m³	BLQ	BLQ
Tetrachloroethylene	µg/m³	BLQ	BLQ
1,3,5-Trimethylbenzene	µg/m³	BLQ	BLQ
N-Butylbenzene	µg/m³	BLQ	BLQ
1,2,3-Trichlorobenzene	µg/m³	BLQ	BLQ
Hexachlorobutadiene	µg/m³	BLQ	BLQ
1,2,4-Trichlorobenzene	µg/m³	BLQ	4.58
2,2-Dichloropropane	µg/m³	BLQ	1.43
Dibromo methane	µg/m³	2.37	BLQ
Toluene	µg/m³	BLQ	BLQ
O-Xylene	µg/m³	BLQ	BLQ

Parameters	Unit	Results	
		Dombivali CETP	Connect well Industries Pvt. Ltd.
Bromoform	µg/m³	BLQ	BLQ
1,1,2,2-Tetrachloroethane	µg/m³	BLQ	BLQ
4-Chlorotoluene	µg/m³	BLQ	BLQ
1,1-Dichloroethylene	µg/m³	BLQ	BLQ
Trans-1,2-Dichloroethylene	µg/m³	BLQ	0.5
1,1-Dichloroethane	µg/m³	BLQ	BLQ
CIS-1,2-Dichloroethylene	µg/m³	BLQ	BLQ
Bromochloromethane	µg/m³	BLQ	0.5
1,1,1-Trichloroethane	µg/m³	BLQ	BLQ

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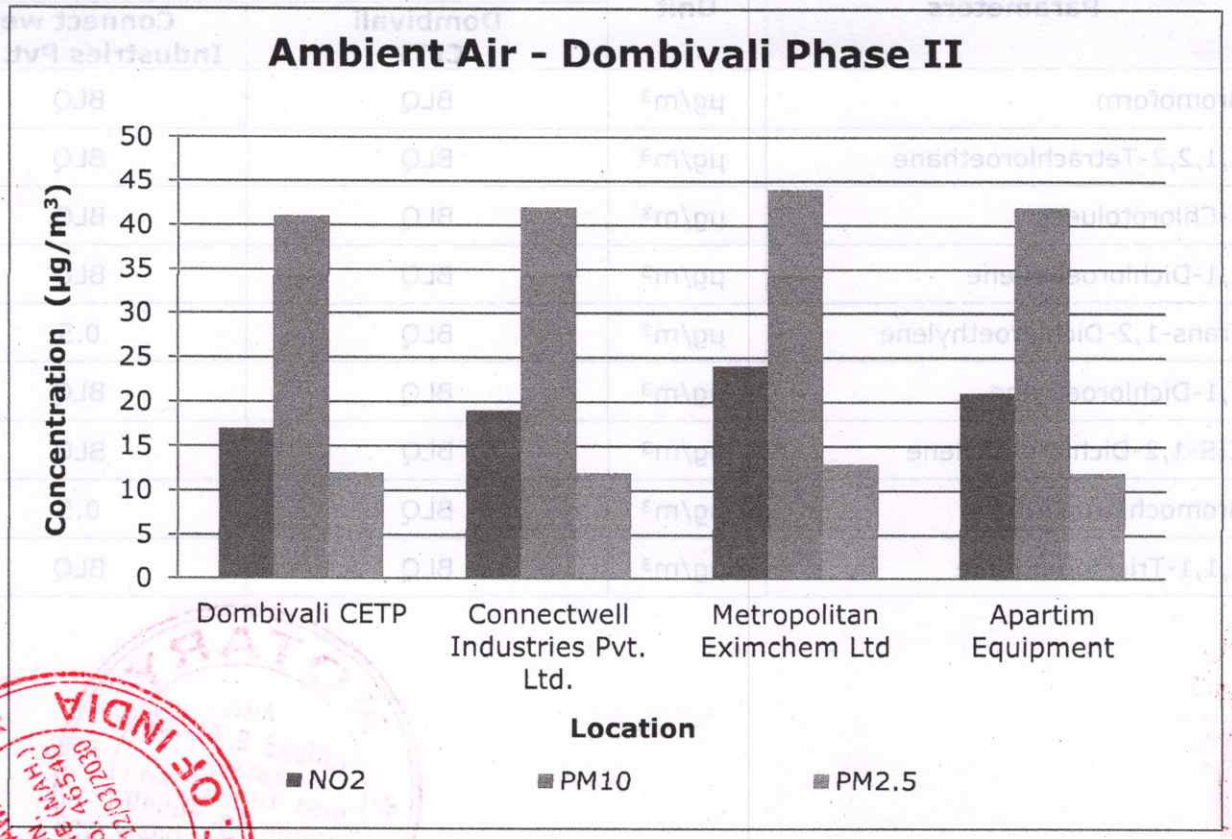
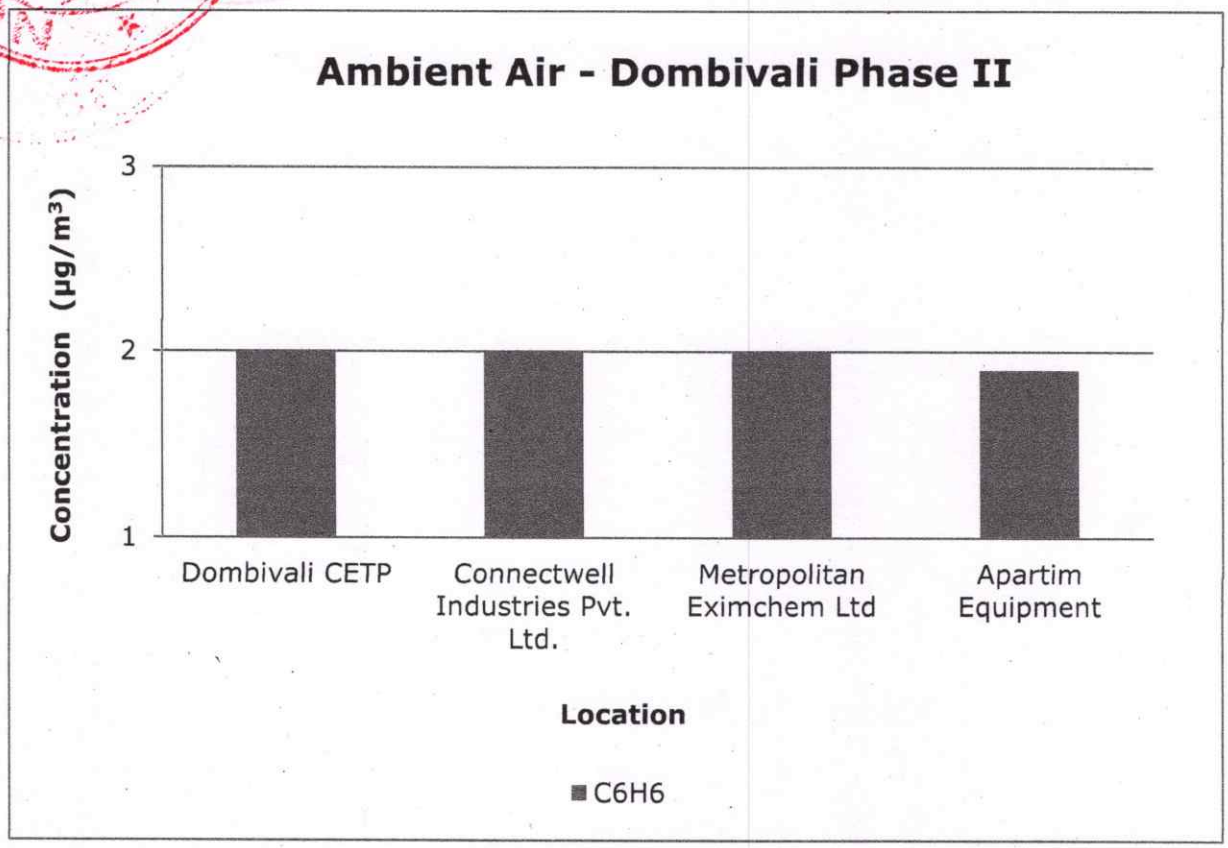
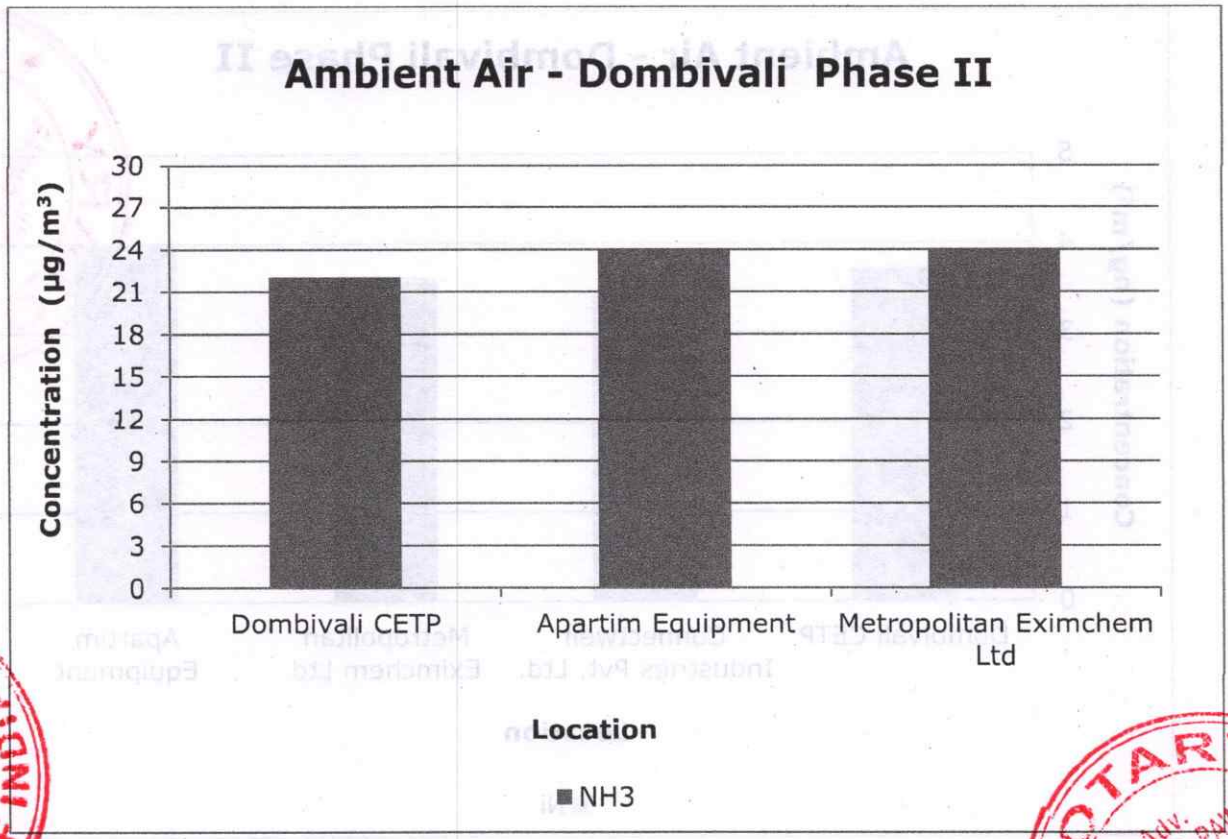
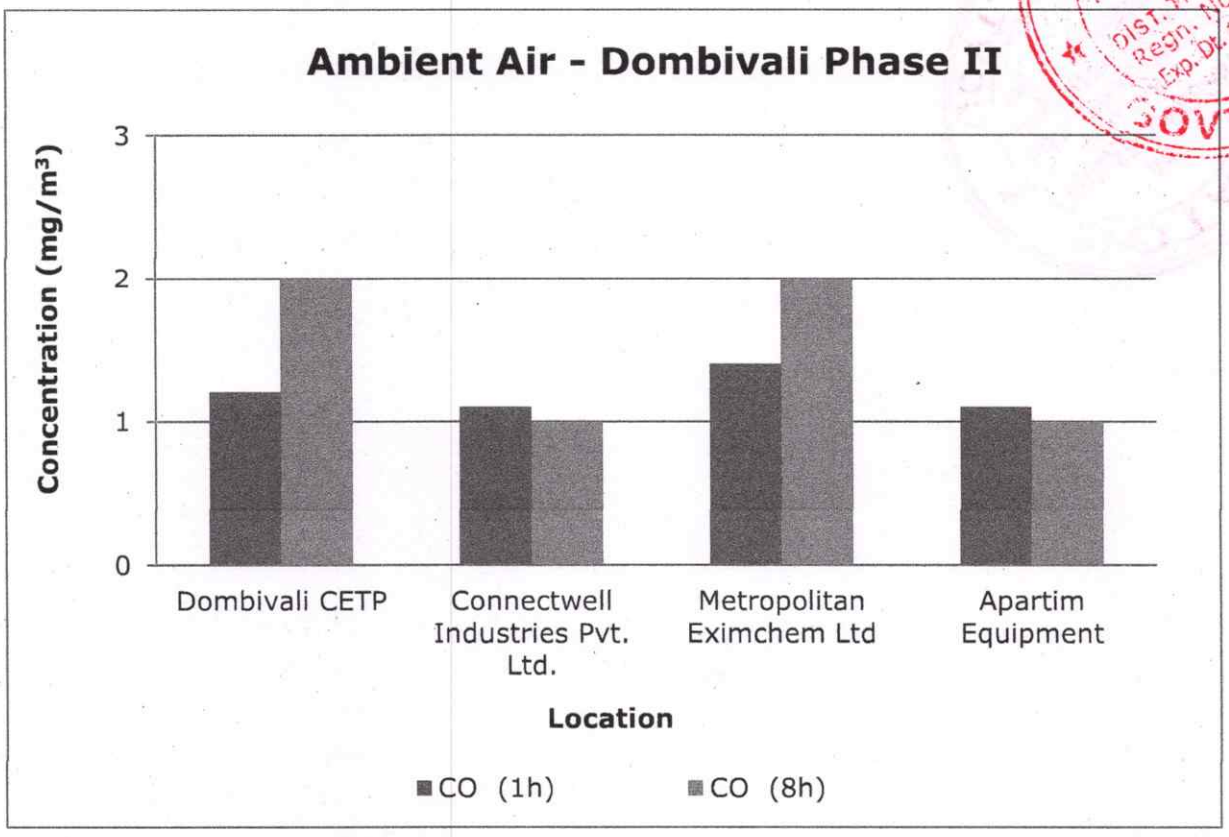
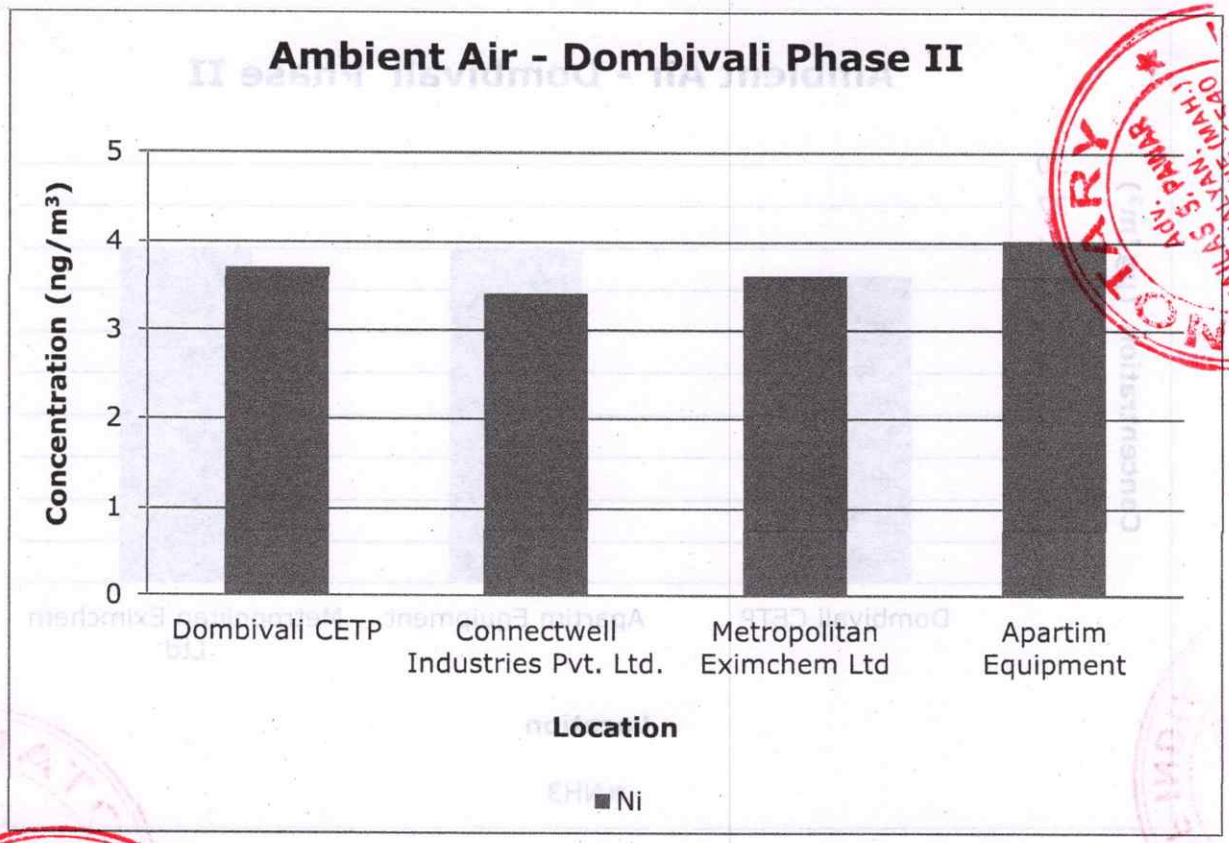
Graphs - Ambient Air Quality of MIDC Dombivali Phase II






Ambient Air - Dombivali Phase II
Concentration (µg/m³)
30
27
24
21
18
15
12
9
6
3
0
Dombivali CETP
Apartim Equipment
Metropolitan Eximchem Ltd
Location
NH3


Ambient Air - Dombivali Phase II
Concentration (mg/m³)
3
2
1
0
Dombivali CETP
Connectwell Industries Pvt. Ltd.
Metropolitan Eximchem Ltd
Apartim Equipment
Location
CO (1h)
CO (8h)


Ambient Air - Dombivali Phase II
Concentration (ng/m³)
5
4
3
2
1
0
Dombivali CETP
Connectwell Industries Pvt. Ltd.
Metropolitan Eximchem Ltd
Apartim Equipment
Location
Ni

WATER ENVIRONMENT

6. Water Environment

For studying the water Environment of Dombivali area, surface water was collected from Nallah, Lake, and River and CETP outlet. A total of 12 samples were collected from MIDC Phase I and MIDC Phase II of Dombivali.

1. **MIDC Phase I:** Six surface water samples are collected from the Dombivali MIDC Phase I region.

- No floating matter was observed in any of the water samples. The smell was agreeable in all the samples except Drain Flowing from DEBESA CETP, Near Khambal Pada and Nallah nearby Krishna Alkali Pvt. Ltd. water samples.
- pH and suspended solids are well within the limits of all the collected samples.
- Except Thakurli Talav; all other water samples were found to exceed the permissible limit of BOD concentration.
- 100% survival was achieved in Fish Bioassay in the water sample collected from Thakurli Talav only. All other water samples were observed with a fish bioassay survival in the range of 80%-97%.
- Concentration of all other metals like Arsenic, Vanadium, Selenium, Boron and Hexavalent Chromium (Cr^{6+}) etc. are observed either below the limit of quantification or below their standard limits.
- Parameters like Total Residual Chlorine, Cyanide, Sulphide, Dissolved Phosphate, Total Ammonical Nitrogen and Phenolic compounds also met the criteria as prescribed by CPCB.
- Polynuclear aromatic hydrocarbons (PAH) and Polychlorinated Biphenyls (PCB) are below the limit of quantification in all 6 samples collected.
- Organo Chlorine Pesticides are also below the limit of quantification (BLQ) in all 6 samples collected.

Table 6.1 Phase I – Details of Sampling Location of Surface Water

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Drain Flowing from DEBESA CETP	19°12'59.98"N	73°6'21.74"E	08.05.2025	10.05.2025	12.05.2025
2.	Near Khambal Pada	19°13'49.19"N	73°6'19.11"E	08.05.2025	10.05.2025	12.05.2025

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
3.	Thakurli Talav	19°13'19.42"N	73°5'57.92"E	08.05.2025	10.05.2025	12.05.2025
4.	Storm Water DEBESA CETP Nallah	19°12'58.47"N	73°6'56.60"E	08.05.2025	10.05.2025	12.05.2025
5.	Nallah nearby Gharda Chemical Ltd.	19°13'2.87"N	73°6'44.41"E	08.05.2025	10.05.2025	12.05.2025
6.	Nallah nearby Krishna Alkali Pvt. Ltd.	19°13'1.18"N	73°6'38.89"E	08.05.2025	10.05.2025	12.05.2025

Fig. Geographical Locations of Surface Water Sampling MIDC Dombivali Phase I

Table 6.2 Phase I – Results of Surface Water

Parameters	Unit	Results					
		Drain Flowing from DEBESA CETP	Near Khambal Pada	Thakurli Talav	Storm Water DEBESA CETP Nallah	Gharda Chemical Ltd.	Krishna Alkali Pvt. Ltd.
Sanitary Survey	-	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood

Parameters	Unit	Results					
		Drain Flowing from DEBESA CETP	Near Khambal Pada	Thakurli Talav	Storm Water DEBESA CETP Nallah	Gharda Chemical Ltd.	Krishna Alkali Pvt. Ltd.
General Appearance	-	No Floating Matter	No Floating Matter	No Floating Matter	No Floating Matter	No Floating Matter	No Floating Matter
Transparency	m	0.3	0.2	0.266666667	0.3	0.3	0.2
Temperature	°C	28	28	29	28	28	28
Colour	Hazen	1	1	1	3	1	1
Smell	-	Not Agreeable	Not Agreeable	Agreeable	Agreeable	Agreeable	Not Agreeable
pH	-	7.4	7.7	7.7	7.6	7.8	7.5
Oil & Grease	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Suspended Solids	mg/L	14	23	22	25	11	17
Total Dissolved Solids	mg/L	636	281	145	181	217	225
Dissolved Oxygen (% Saturation)	%	64	65	72	65	59	66
Chemical Oxygen Demand	mg/L	36	29	20	29	124	32
Biochemical Oxygen Demand (3 days,27°C)	mg/L	9	8	5	8	42	8
Electrical Conductivity (at 25 °C)	µmho/cm	1135	503	259	325	389	404
Nitrite Nitrogen (as NO_2)	mg/L	BLQ	0.04	BLQ	0.095	BLQ	0.02
Nitrate Nitrogen (as NO_3)	mg/L	1.1	0.9	0.5	1.0	0.7	1.2
(NO_2 + NO_3)-Nitrogen	mg/L	1.1	0.9	0.5	1.1	0.7	1.3
Free Ammonia (as NH_3-N)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Total Residual Chlorine	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Cyanide (as CN)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Fluoride (as F)	mg/L	1	1	1	1	1	1
Sulphide (as H_2S)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Dissolved Phosphate (as P)	mg/L	0.14	BLQ	BLQ	BLQ	BLQ	BLQ

Parameters	Unit	Results					
		Drain Flowing from DEBESA CETP	Near Khambal Pada	Thakurli Talav	Storm Water DEBESA CETP Nallah	Gharda Chemical Ltd.	Krishna Alkali Pvt. Ltd.
Sodium Adsorption Ratio	-	4.8	2.5	1.3	1.6	1.6	1.8
Total Coliforms	MPN Index/ 100 ml	6400	6383	5458	4767	5757	137
Faecal Coliforms	MPN Index/ 100 ml	566	1027	205	203	154	70
Total Phosphate (as P)	mg/L	0.3	0.2	BLQ	0.1	0.1	0.2
Total Kjeldahl Nitrogen (as N)	mg/L	1.5	0.6	0.8	1.8	0.6	1.1
Total Ammonia (NH_4+NH_3)-Nitrogen	mg/L	1.6	1.7	0.4	1.3	3.9	0.2
Total Nitrogen	mg/L	2.5	2.0	2.1	3.0	1.5	2.3
Phenols (as C_6H_5OH)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Anionic Detergents (as MBAS Calculated as LAS, mol.wt.288.38)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Organo Chlorine Pesticides	µg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Polynuclear aromatic hydrocarbons (as PAH)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Polychlorinated Biphenyls (PCB)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Zinc (as Zn)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Nickel (as Ni)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Copper (as Cu)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Hexavalent Chromium (as Cr^{6+})	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Total Chromium (as Cr)	mg/L	0.024	BLQ	BLQ	BLQ	BLQ	BLQ
Total Arsenic (as As)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Lead (as Pb)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Cadmium (as Cd)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ

Parameters	Unit	Results					
		Drain Flowing from DEBESA CETP	Near Khambal Pada	Thakurli Talav	Storm Water DEBESA CETP Nallah	Gharda Chemical Ltd.	Krishna Alkali Pvt. Ltd.
Mercury (as Hg)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Manganese (as Mn)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Iron (as Fe)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Vanadium (as V)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Selenium (as Se)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Boron (as B)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Bioassay Test on fish	% survival	97	90	100	90	80	97

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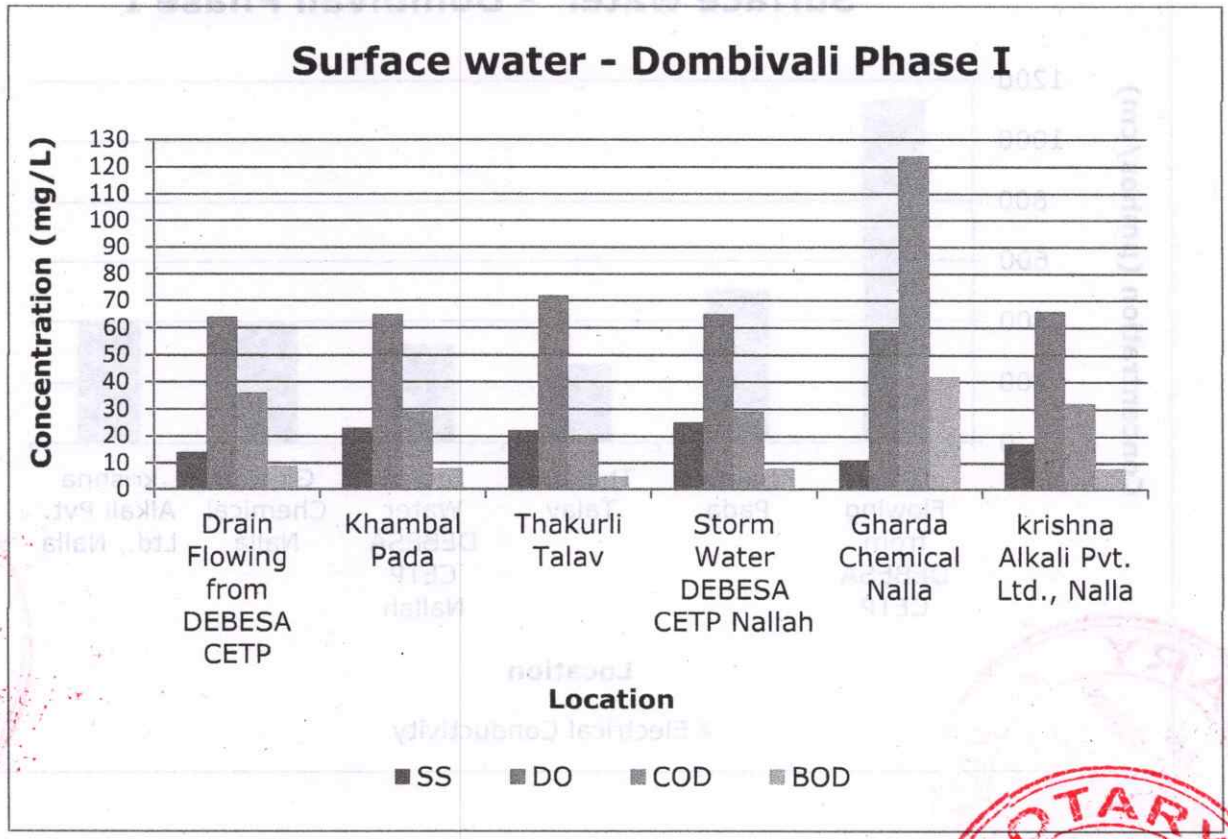
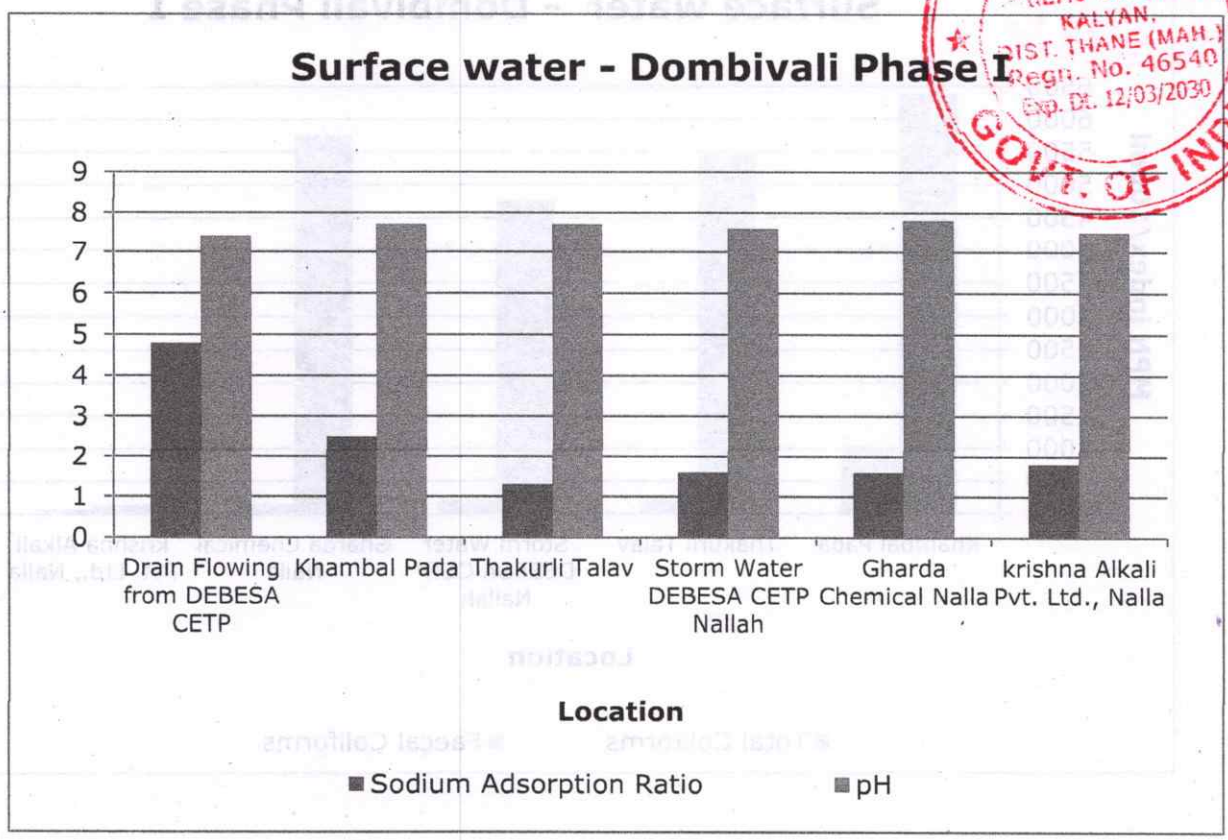
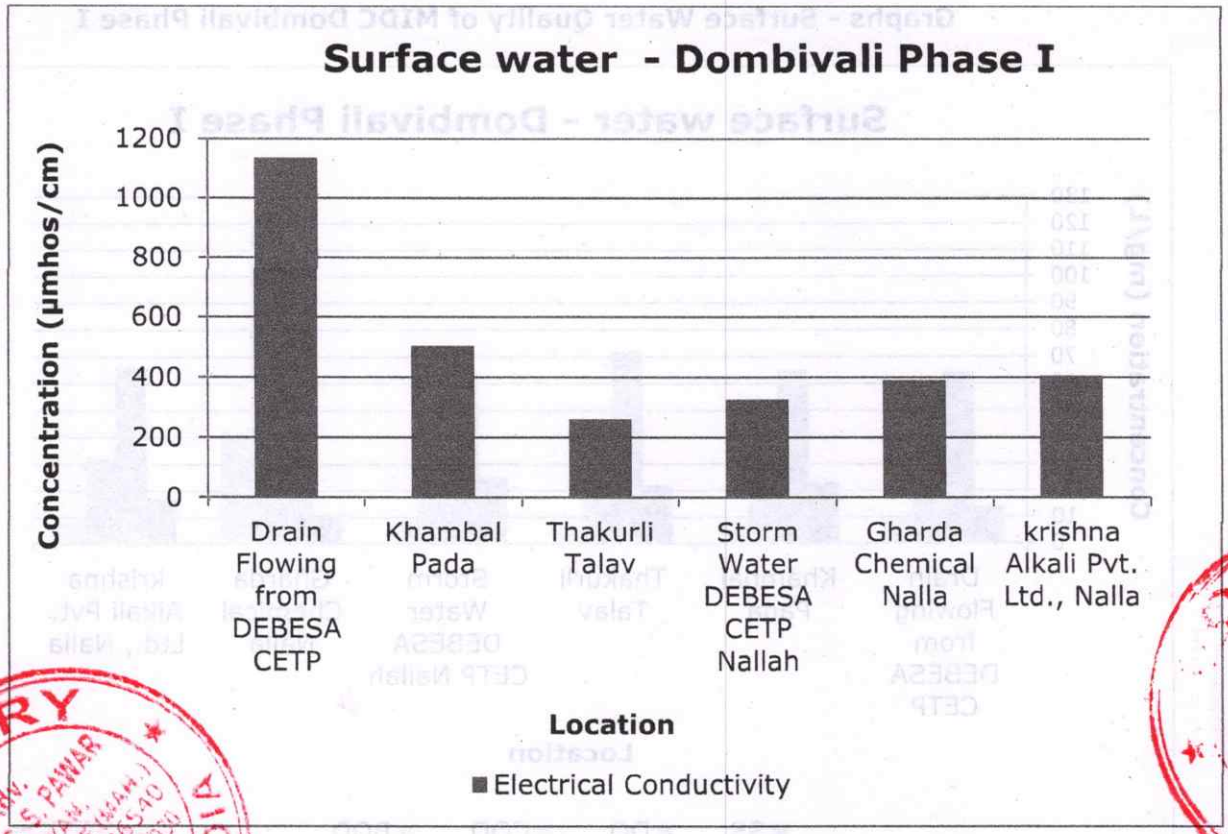
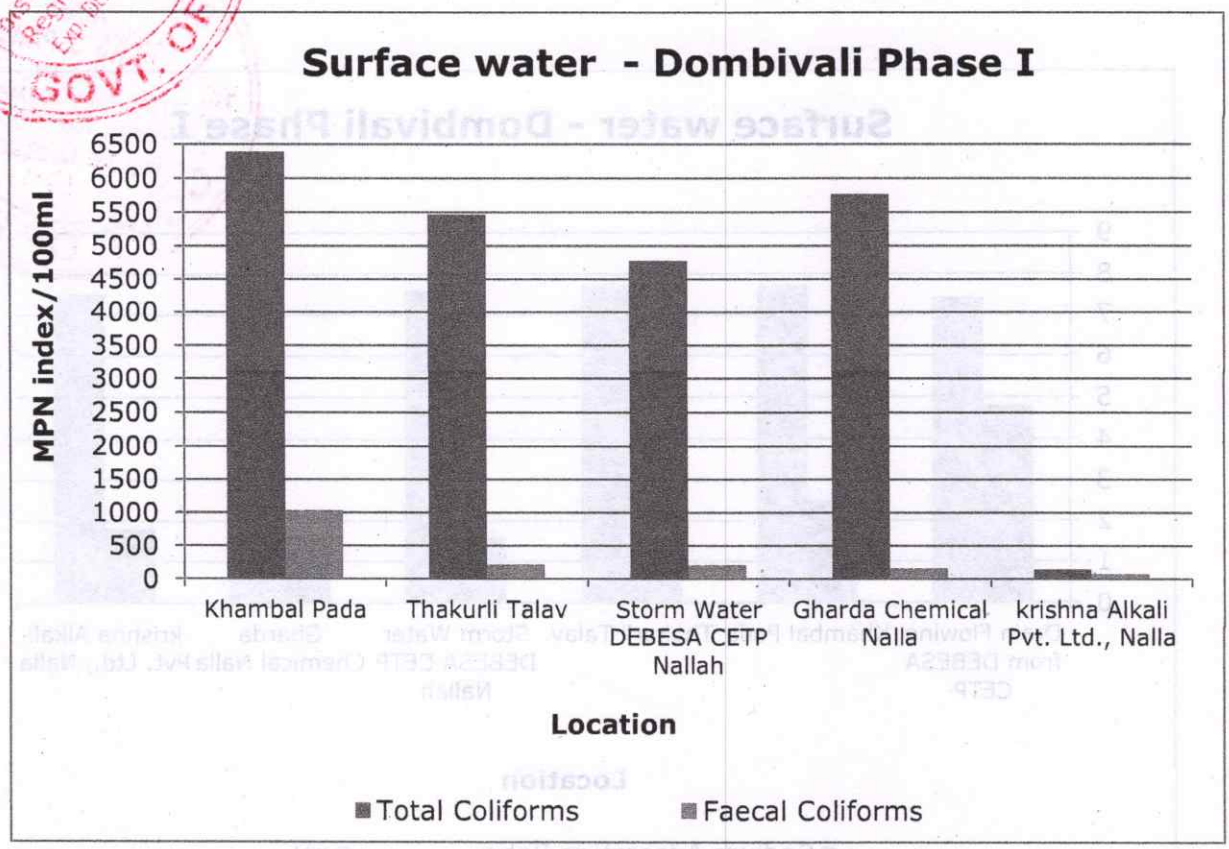
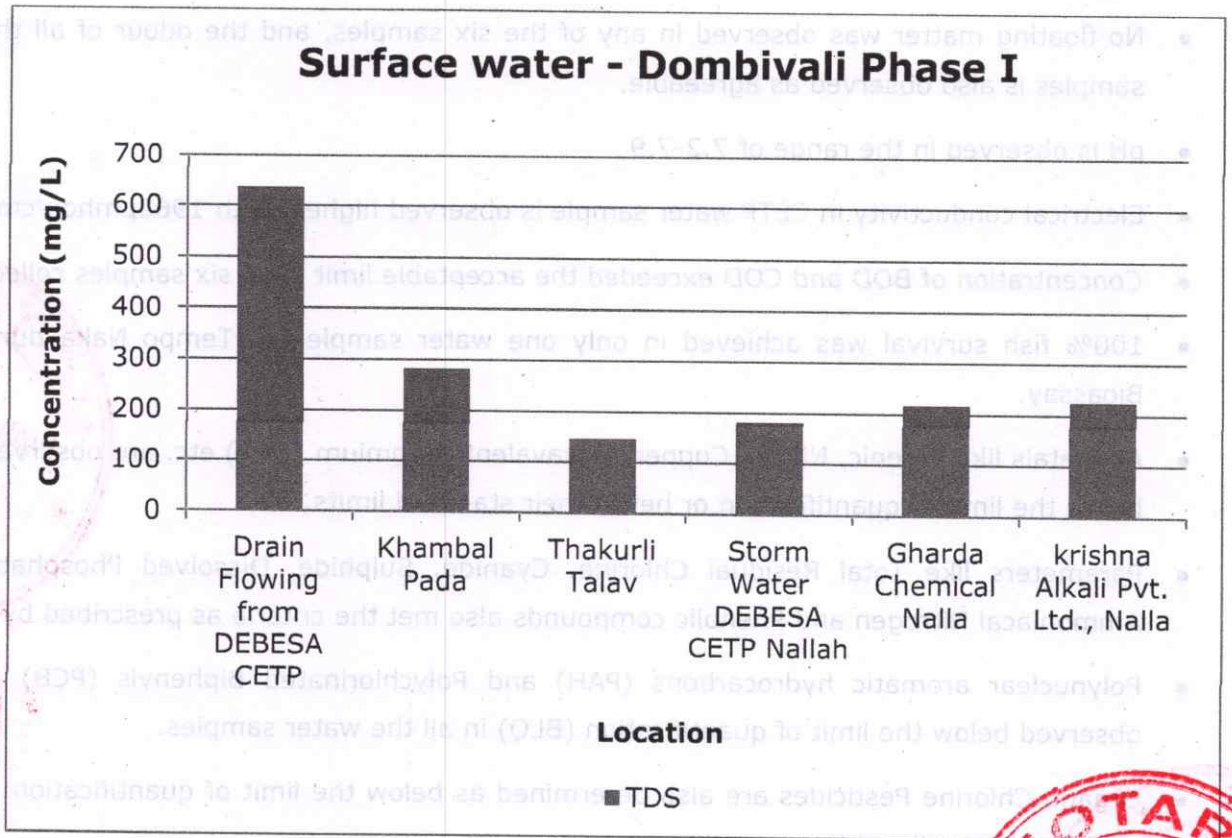
Graphs - Surface Water Quality of MIDC Dombivali Phase I

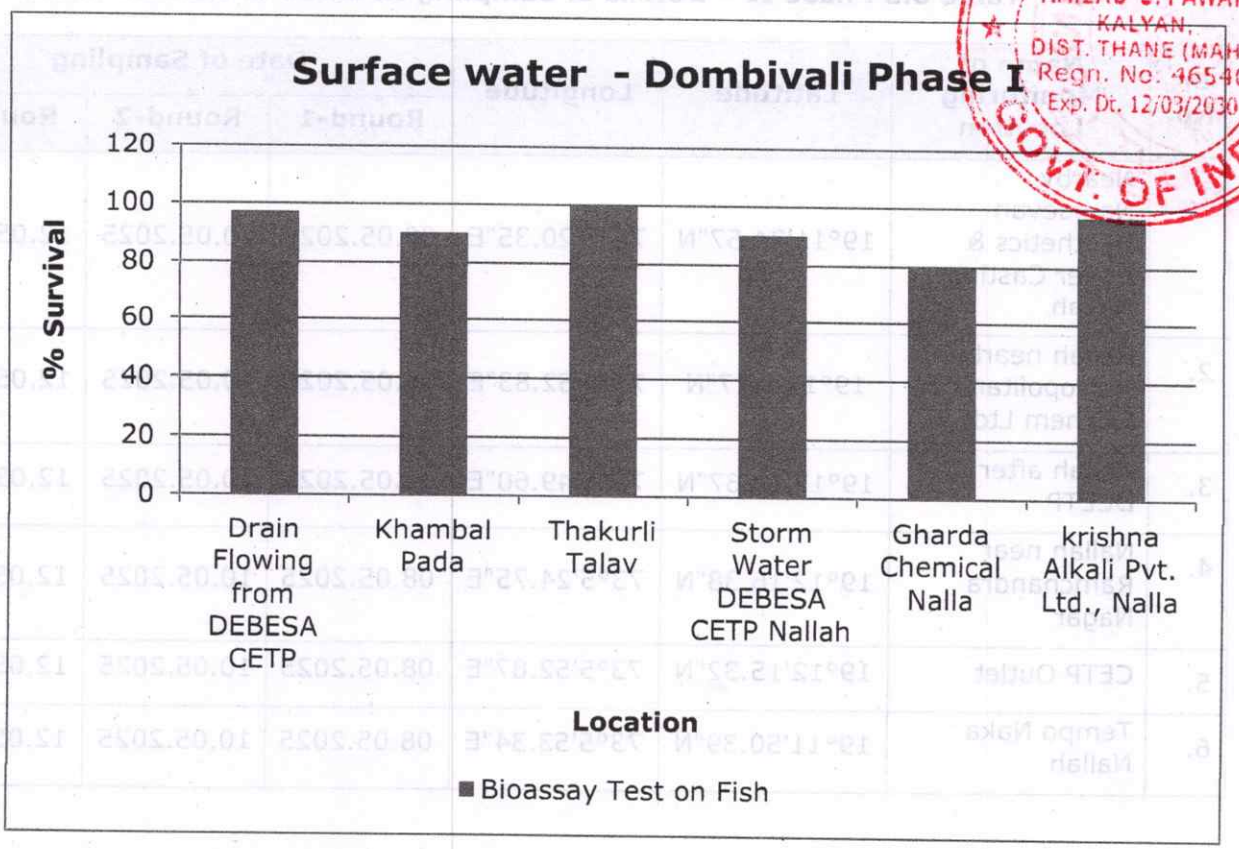





Surface water - Dombivali Phase I
Concentration (µmhos/cm)
1200
1000
800
600
400
200
0
Drain Flowing from DEBESA CETP
Khambal Pada
Thakurli Talav
Storm Water DEBESA CETP Nallah
Gharda Chemical Nalla
krishna Alkali Pvt. Ltd., Nalla
Location
Electrical Conductivity


Surface water - Dombivali Phase I
MPN index/100ml
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Khambal Pada
Thakurli Talav
Storm Water DEBESA CETP Nallah
Gharda Chemical Nalla
krishna Alkali Pvt. Ltd., Nalla
Location
Total Coliforms
Faecal Coliforms





2. **MIDC Phase II:** Six surface water samples are collected from Dombivali MIDC Phase II.

- No floating matter was observed in any of the six samples, and the odour of all the water samples is also observed as agreeable.
- pH is observed in the range of 7.2-7.9
- Electrical conductivity in CETP water sample is observed highest with 1962µmhos/cm.
- *Concentration of BOD and COD exceeded the acceptable limit in all six samples collected.*
- 100% fish survival was achieved in only one water sample i.e. Tempo Naka during Fish Bioassay.
- All metals like Arsenic, Nickel, Copper, Hexavalent Chromium (Cr^{6+}) etc. are observed either below the limit of quantification or below their standard limits.
- Parameters like Total Residual Chlorine, Cyanide, Sulphide, Dissolved Phosphate, Total Ammoniacal Nitrogen and Phenolic compounds also met the criteria as prescribed by CPCB.
- Polynuclear aromatic hydrocarbons (PAH) and Polychlorinated Biphenyls (PCB) are also observed below the limit of quantification (BLQ) in all the water samples.
- Organo Chlorine Pesticides are also determined as below the limit of quantification (BLQ) in all 6 samples collected.

Table 6.3 Phase II – Details of Sampling Location of Surface Water

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Nearby Navjeevan Synthetics & Super Casting Nallah	19°11'34.57"N	73°5'20.35"E	08.05.2025	10.05.2025	12.05.2025
2.	Nallah nearby Metropolitan Exichem Ltd.	19°12'1.77"N	73°5'52.83"E	08.05.2025	10.05.2025	12.05.2025
3.	Nallah after DCETP	19°12'14.67"N	73°5'49.60"E	08.05.2025	10.05.2025	12.05.2025
4.	Nallah near Ramchandra Nagar	19°12'16.38"N	73°5'24.75"E	08.05.2025	10.05.2025	12.05.2025
5.	CETP Outlet	19°12'15.32"N	73°5'52.87"E	08.05.2025	10.05.2025	12.05.2025
6.	Tempo Naka Nallah	19°11'50.39"N	73°5'53.34"E	08.05.2025	10.05.2025	12.05.2025

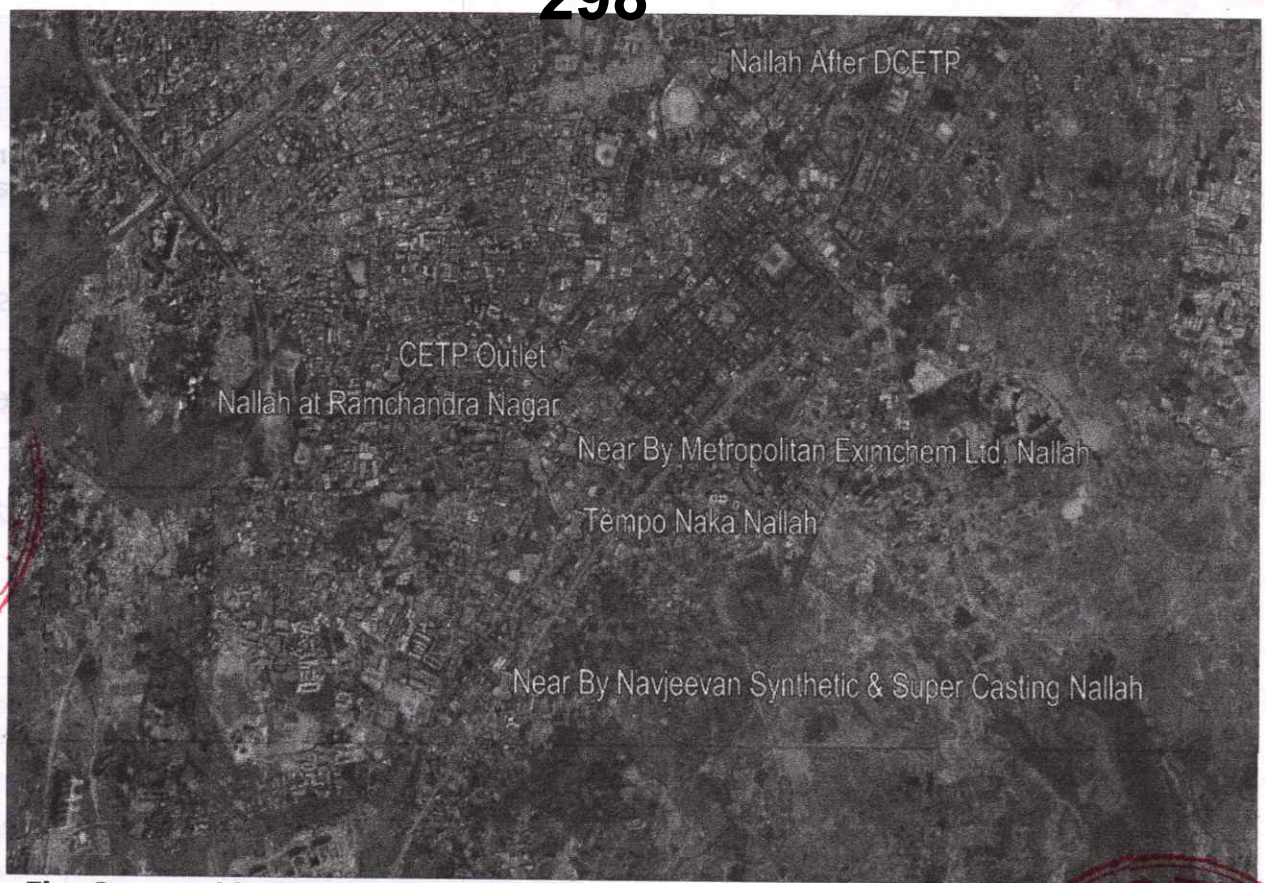


Fig. Geographical Locations of Surface Water Sampling MIDC Dombivali Phase II

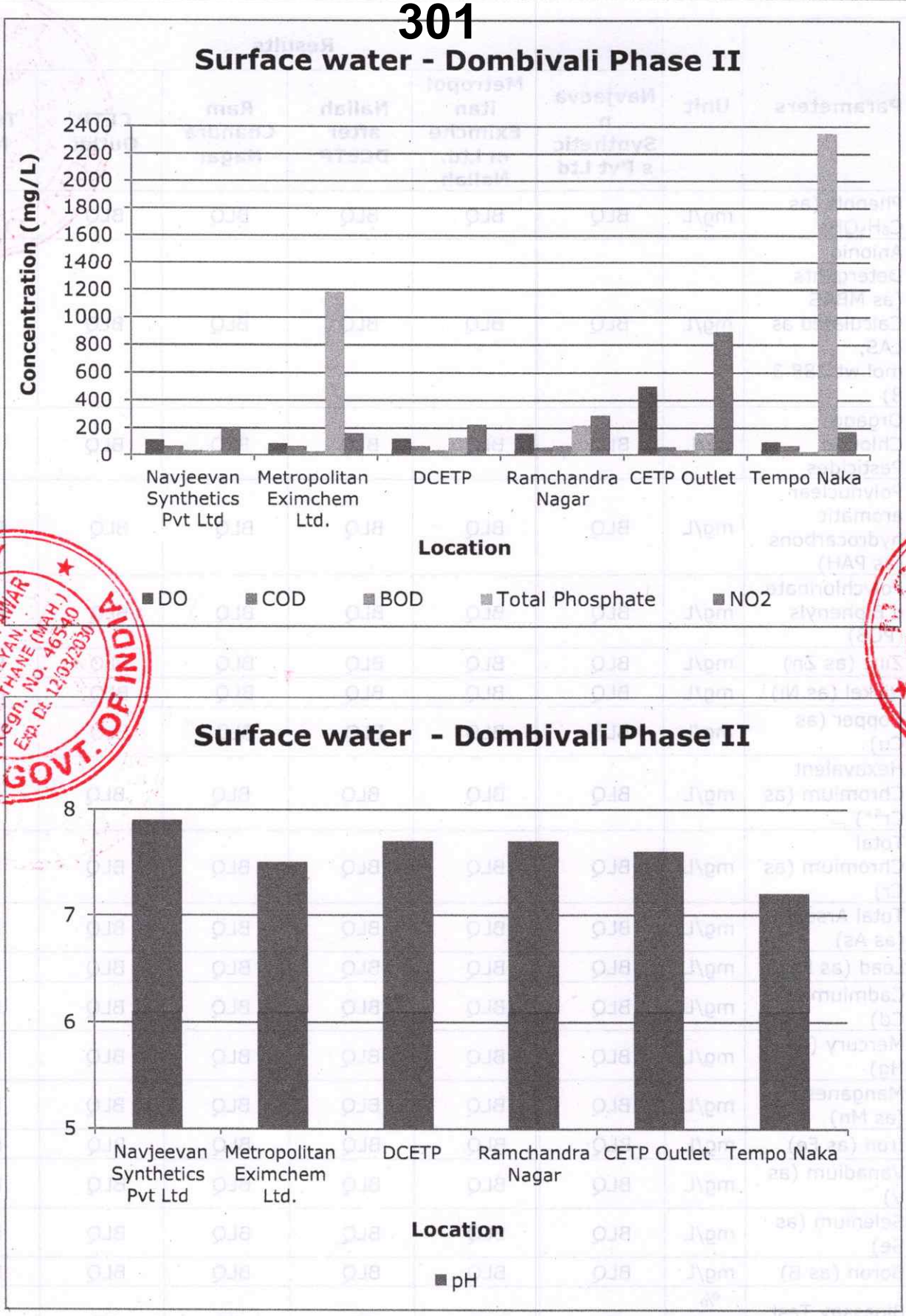
Table 6.4 Phase II – Results of Surface Water

Parameters	Unit	Results					
		Navjeevan Synthetics Pvt Ltd	Metropolitan Eximchem Ltd. Nallah	Nallah after DCETP	Ram Chandra Nagar	CETP Outlet	Tempo Naka
Sanitary Survey	-	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood
General Appearance	-	No Floating Matter	No Floating Matter	No Floating Matter	No Floating Matter	No Floating Matter	No Floating Matter
Transparency	m	0.5	0.3	0.1	0.5	0.3	0.4
Temperature	°C	28	29	29	28	27	29
Colour	Hazen	1	1	1	2	3	2
Smell	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
pH	-	7.9	7.5	7.7	7.7	7.6	7.2
Oil & Grease	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Suspended Solids	mg/L	0.5	0.3	0.1	0.5	0.3	0.4
Total Dissolved Solids	mg/L	19	23	20	20	35	19

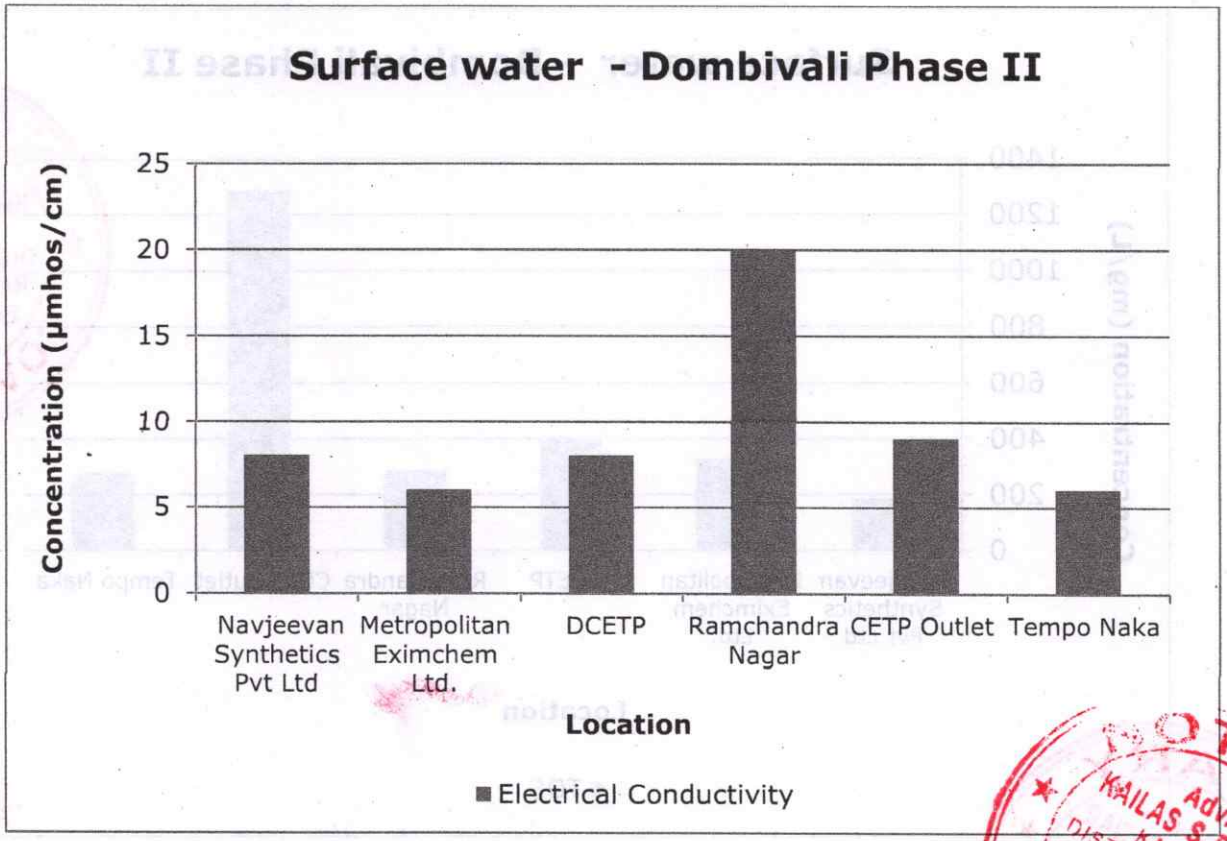
Parameters	Unit	Results					
		Navjeevan Synthetics Pvt Ltd	Metropolitan Eximchem Ltd. Nallah	Nallah after DCETP	Ram Chandra Nagar	CETP Outlet	Tempo Naka
Dissolved Oxygen (% Saturation)	%	112	89	123	160	499	96
Chemical Oxygen Demand	mg/L	66	68	67	57	60	69
Biochemical Oxygen Demand (3 days,27°C)	mg/L	32	24	33	69	34	21
Electrical Conductivity (at 25 °C)	µmho/cm	8	6	8	20	9	6
Nitrite Nitrogen (as NO_2)	mg/L	200	160	222	287	892	171
Nitrate Nitrogen (as NO_3)	mg/L	0.04	0.04	0.03	0.02	0.41	0.02
(NO_2 + NO_3)-Nitrogen	mg/L	0.7	0.7	0.8	0.9	2.2	0.8
Free Ammonia (as NH_3-N)	mg/L	0.8	0.7	0.8	0.9	2.6	0.8
Total Residual Chlorine	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Cyanide (as CN)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Fluoride (as F)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Sulphide (as H_2S)	mg/L	1	1	2	1	1	1
Dissolved Phosphate (as P)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Sodium Adsorption Ratio	-	BLQ	BLQ	BLQ	BLQ	0.11	BLQ
Total Coliforms	MPN Index/100 ml	1.6	2.2	3.2	1.3	3.4	2.3
Faecal Coliforms	MPN Index/100 ml	101	5683	661	1463	5434	10847
Total Phosphate (as P)	mg/L	28	1183	130	216	164	2349
Total Kjeldahl Nitrogen (as N)	mg/L	0.2	BLQ	BLQ	BLQ	0.3	BLQ
Total Ammonia (NH_4+NH_3)-Nitrogen	mg/L	2.1	1.4	0.5	2.7	0.8	0.9
Total Nitrogen	mg/L	BLQ	1.2	1.7	2.2	7.0	1.8

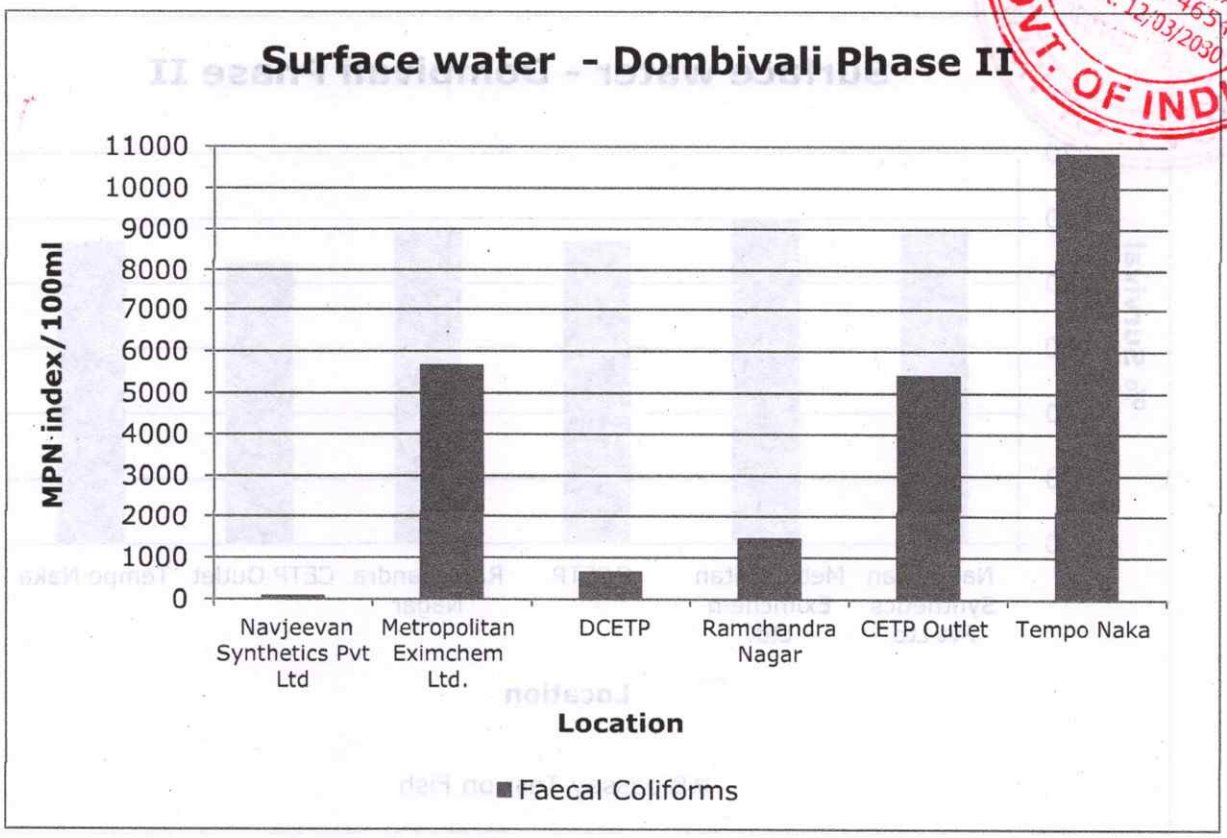
Parameters	Unit	Results					
		Navjeevan Synthetics Pvt Ltd	Metropolitan Eximchem Ltd. Nallah	Nallah after DCETP	Ram Chandra Nagar	CETP Outlet	Tempo Naka
Phenols (as C_6H_5OH)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Anionic Detergents (as MBAS Calculated as LAS, mol.wt.288.38)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Organo Chlorine Pesticides	µg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Polynuclear aromatic hydrocarbons (as PAH)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Polychlorinated Biphenyls (PCB)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Zinc (as Zn)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Nickel (as Ni)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Copper (as Cu)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Hexavalent Chromium (as Cr^{6+})	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Total Chromium (as Cr)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Total Arsenic (as As)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Lead (as Pb)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Cadmium (as Cd)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Mercury (as Hg)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Manganese (as Mn)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Iron (as Fe)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Vanadium (as V)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Selenium (as Se)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Boron (as B)	mg/L	BLQ	BLQ	BLQ	BLQ	BLQ	BLQ
Bioassay Test on fish	% survival	97	100	93	97	87	93

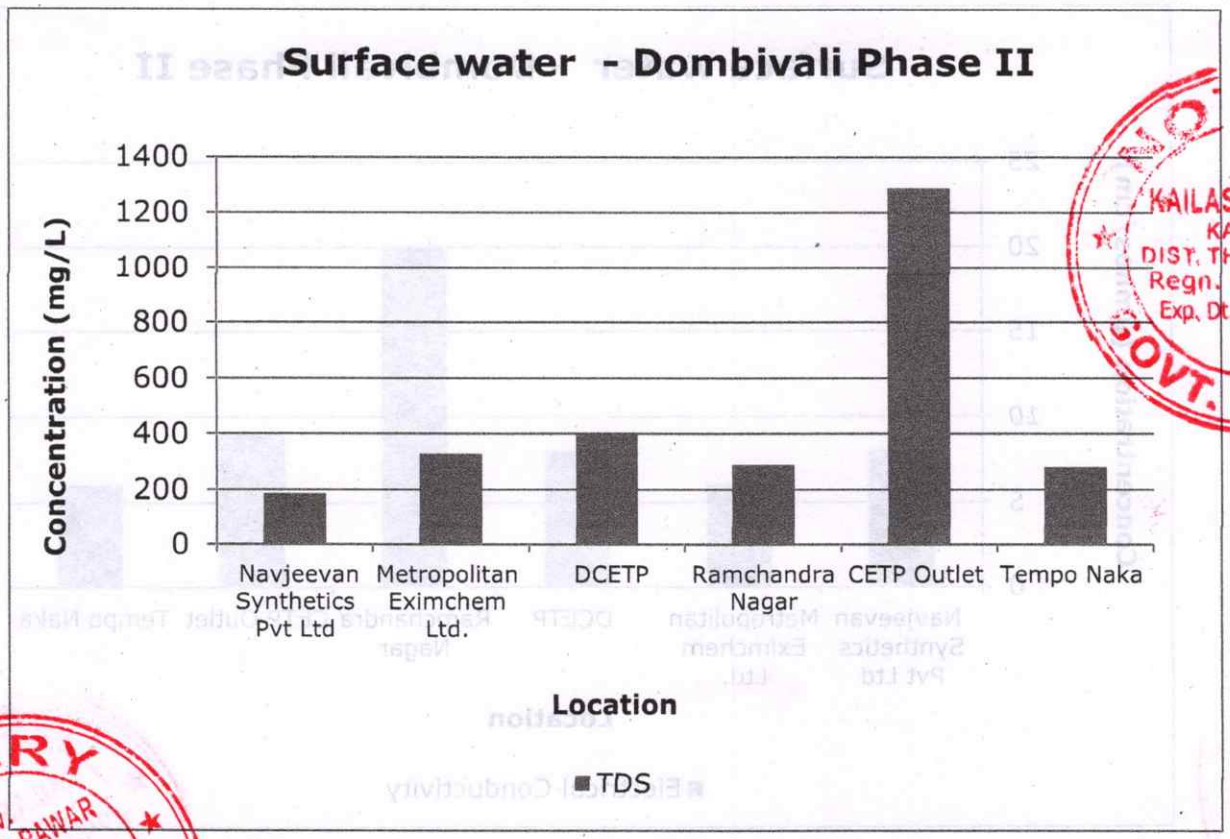
Graphs - Surface Water Quality of MIDC Dombivali Phase II

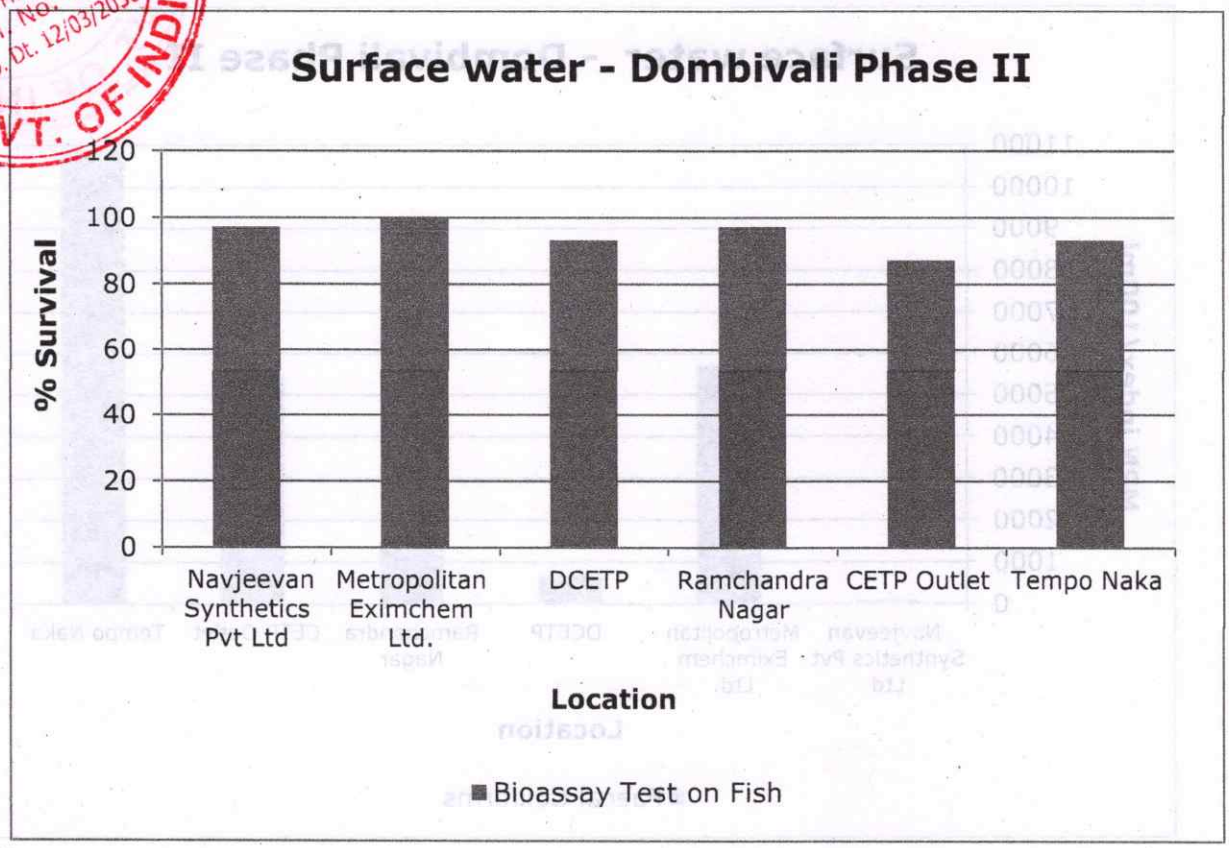

Surface water - Dombivali Phase II
Concentration (mg/L)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Navjeevan Synthetics Pvt Ltd
Metropolitan Eximchem Ltd.
DCETP
Ramchandra Nagar
CETP Outlet
Tempo Naka
Location
DO
COD
BOD
Total Phosphate
NO2

Surface water - Dombivali Phase II
8
7
6
5
Navjeevan Synthetics Pvt Ltd
Metropolitan Eximchem Ltd.
DCETP
Ramchandra Nagar
CETP Outlet
Tempo Naka
Location
pH









LAND ENVIRONMENT

7. Land Environment

For studying the land Environment of Dombivali area, Groundwater was collected from Borewell in triplicates from 8th May to 12th May 2025. A total of 6 samples were collected from MIDC Phase I and MIDC Phase II of Dombivali region.

1. **MIDC Phase I:** Three groundwater samples were collected from MIDC Phase I of the Dombivali region.

   - All three water samples collected are acceptable in general appearance, colour and transparency. Smell is agreeable except Bore well at Horizon Hall.
   - pH is observed as 7.7 of all three water samples.
   - Parameters like Total Residual Chlorine, Cyanide, Fluoride, Sulphide, Dissolved Phosphate, Total Ammonical Nitrogen and Phenolic compounds also meet the criteria as prescribed by CPCB.
   - 97% survival was achieved in Fish Bioassay Bore well at Horizon Hall water samples.
   - All metals like Arsenic, Nickel, Copper, Iron, Zinc, Hexavalent Chromium (Cr^{6+}) etc. are observed either below limit of quantification or below their standard limits.
   - Polynuclear aromatic hydrocarbons (PAH) and Polychlorinated Biphenyls (PCB) were found below the limit of quantification in all 3 samples collected.
   - Organo Chlorine Pesticides were also observed below the limit of quantification in all 3 samples collected.

Table 7.1 Phase I – Details of Sampling Location of Groundwater

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Bore well opposite Kama Office	19°12'49.14"N	73°6'27.99"E	08.05.2025	10.05.2025	12.05.2025
2.	Bore well Near Mamata Hospital	19°12'27.36"N	73°6'15.12"E	08.05.2025	10.05.2025	12.05.2025
3.	Bore well at Horizon hall	19°11'30.01"N	73°5'31.82"E	08.05.2025	10.05.2025	12.05.2025

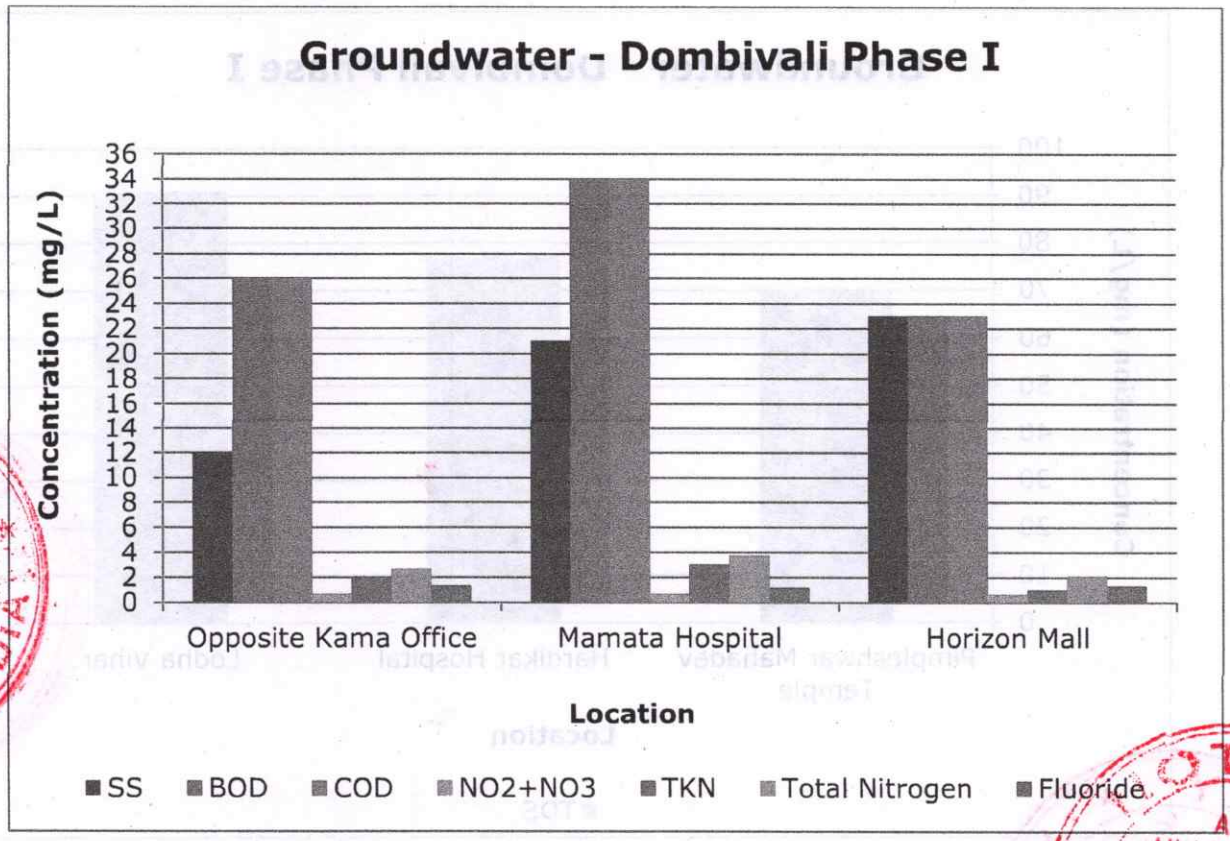
Fig. Geographical Locations of Groundwater Sampling MIDC Dombivali Phase I

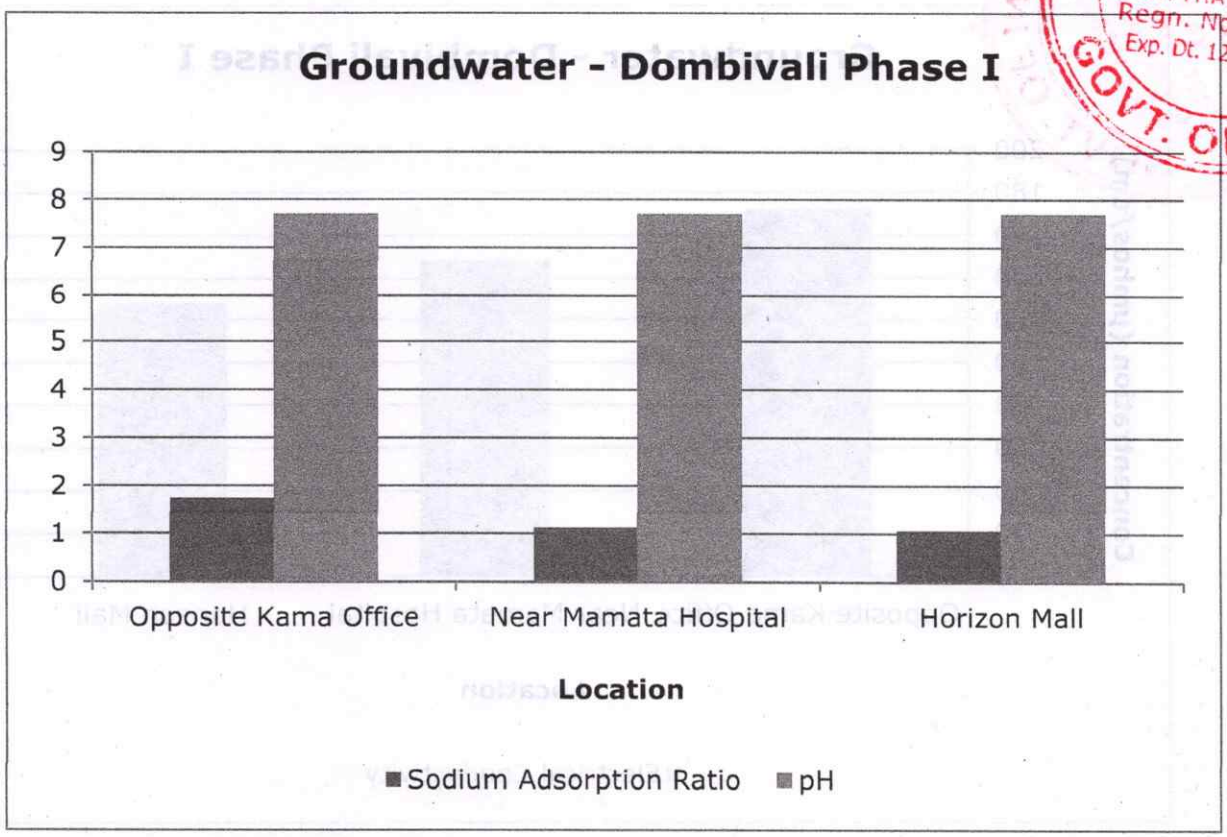
Table 7.2 Phase I – Results of Groundwater

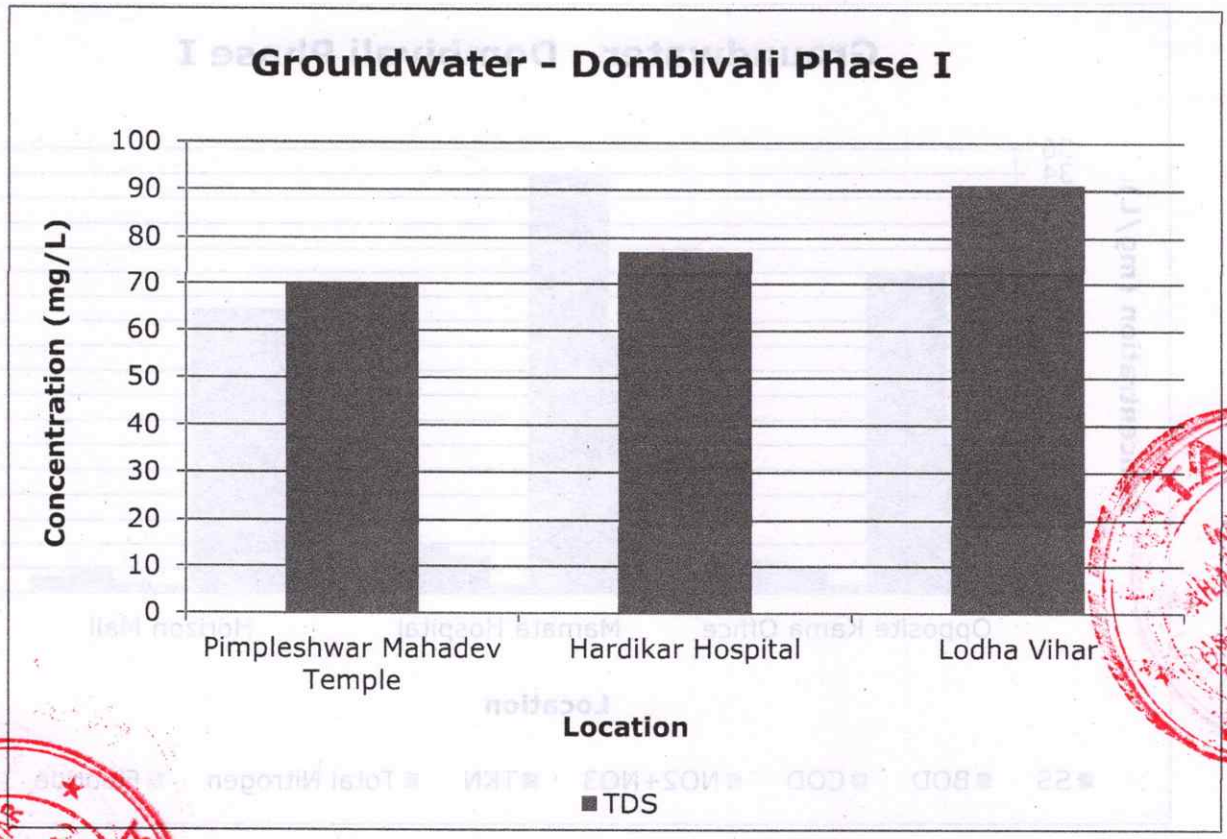
Parameters	Unit	Results		
		Bore well opposite Kama Office	Bore well Near Mamata Hospital	Bore well at Horizon Hall
Sanitary Survey	-	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood
General Appearance	-	No Floating Matter	No Floating Matter	No Floating Matter
Transparency	m	NA	NA	NA
Temperature	°C	28	29	27
Colour	Hazen	1	1	1
Smell	-	Agreeable	Agreeable	Not Agreeable
pH	-	7.7	7.7	7.7
Oil & Grease	mg/L	BLQ	BLQ	BLQ
Suspended Solids	mg/L	12	21	23
Total Dissolved Solids	mg/L	95	82	71
Chemical Oxygen Demand	mg/L	26	34	23
Biochemical Oxygen Demand (3 days,27°C)	mg/L	7	9	6
Electrical Conductivity (at 25 °C)	µmho/cm	172	148	128
Nitrite Nitrogen (as NO_2)	mg/L	BLQ	BLQ	BLQ
Nitrate Nitrogen (as NO_3)	mg/L	0.64	0.66	0.60
(NO_2 + NO_3)-Nitrogen	mg/L	0.64	0.66	0.60
Free Ammonia (as NH_3-N)	mg/L	BLQ	BLQ	BLQ
Total Residual Chlorine	mg/L	BLQ	BLQ	BLQ

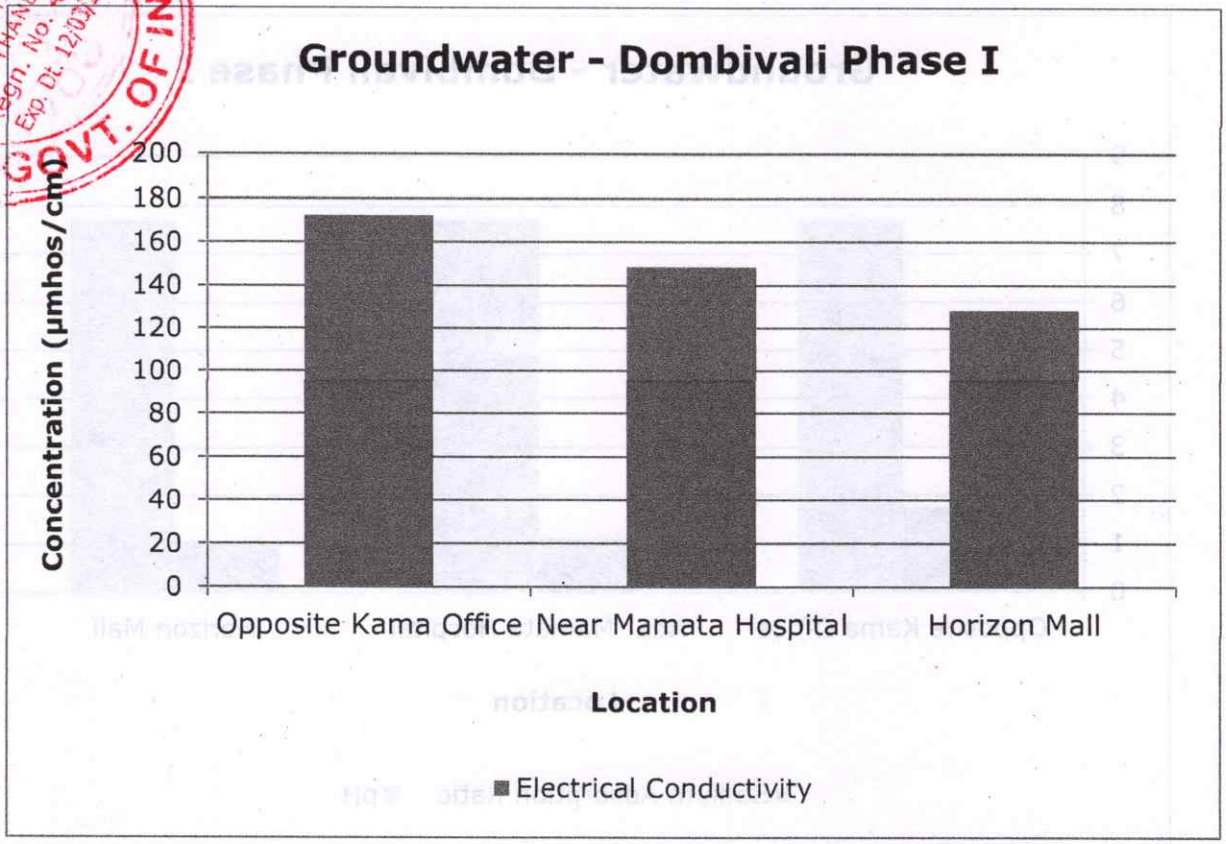
Parameters	Unit	Results		
		Bore well opposite Kama Office	Bore well Near Mamata Hospital	Bore well at Horizon Hall
Cyanide (as CN)	mg/L	BLQ	BLQ	BLQ
Fluoride (as F)	mg/L	1.30	1.18	1.31
Sulphide (as H_2S)	mg/L	BLQ	BLQ	BLQ
Dissolved Phosphate (as P)	mg/L	BLQ	BLQ	BLQ
Sodium Adsorption Ratio	-	1.73	1.11	1.05
Total Coliforms	MPN Index/ 100 ml	30	13	1407
Faecal Coliforms	MPN Index/ 100 ml	9	6	166
Total Phosphate (as P)	mg/L	BLQ	BLQ	BLQ
Total Kjeldahl Nitrogen (as N)	mg/L	2	3	1
Total Ammonia (NH_4+NH_3)-Nitrogen	mg/L	0.36	0.12	0.86
Total Nitrogen	mg/L	2.65	3.75	2.09
Phenols (as C_6H_5OH)	mg/L	BLQ	BLQ	BLQ
Anionic Detergents (as MBAS Calculated as LAS, mol.wt.288.38)	mg/L	BLQ	BLQ	BLQ
Organo Chlorine Pesticides	µg/L	BLQ	BLQ	BLQ
Polynuclear aromatic hydrocarbons (as PAH)	mg/L	BLQ	BLQ	BLQ
Polychlorinated Biphenyls (PCB)	mg/L	BLQ	BLQ	BLQ
Zinc (as Zn)	mg/L	BLQ	BLQ	BLQ
Nickel (as Ni)	mg/L	BLQ	BLQ	BLQ
Copper (as Cu)	mg/L	BLQ	BLQ	BLQ
Hexavalent Chromium (as Cr^{6+})	mg/L	BLQ	BLQ	BLQ
Total Chromium (as Cr)	mg/L	BLQ	BLQ	BLQ
Total Arsenic (as As)	mg/L	BLQ	BLQ	BLQ
Lead (as Pb)	mg/L	BLQ	BLQ	BLQ
Cadmium (as Cd)	mg/L	BLQ	BLQ	BLQ
Mercury (as Hg)	mg/L	BLQ	BLQ	BLQ
Manganese (as Mn)	mg/L	BLQ	BLQ	BLQ
Iron (as Fe)	mg/L	BLQ	BLQ	BLQ
Vanadium (as V)	mg/L	BLQ	BLQ	BLQ
Selenium (as Se)	mg/L	BLQ	BLQ	BLQ
Boron (as B)	mg/L	BLQ	BLQ	BLQ
Bioassay Test on fish	% survival	90	93	97

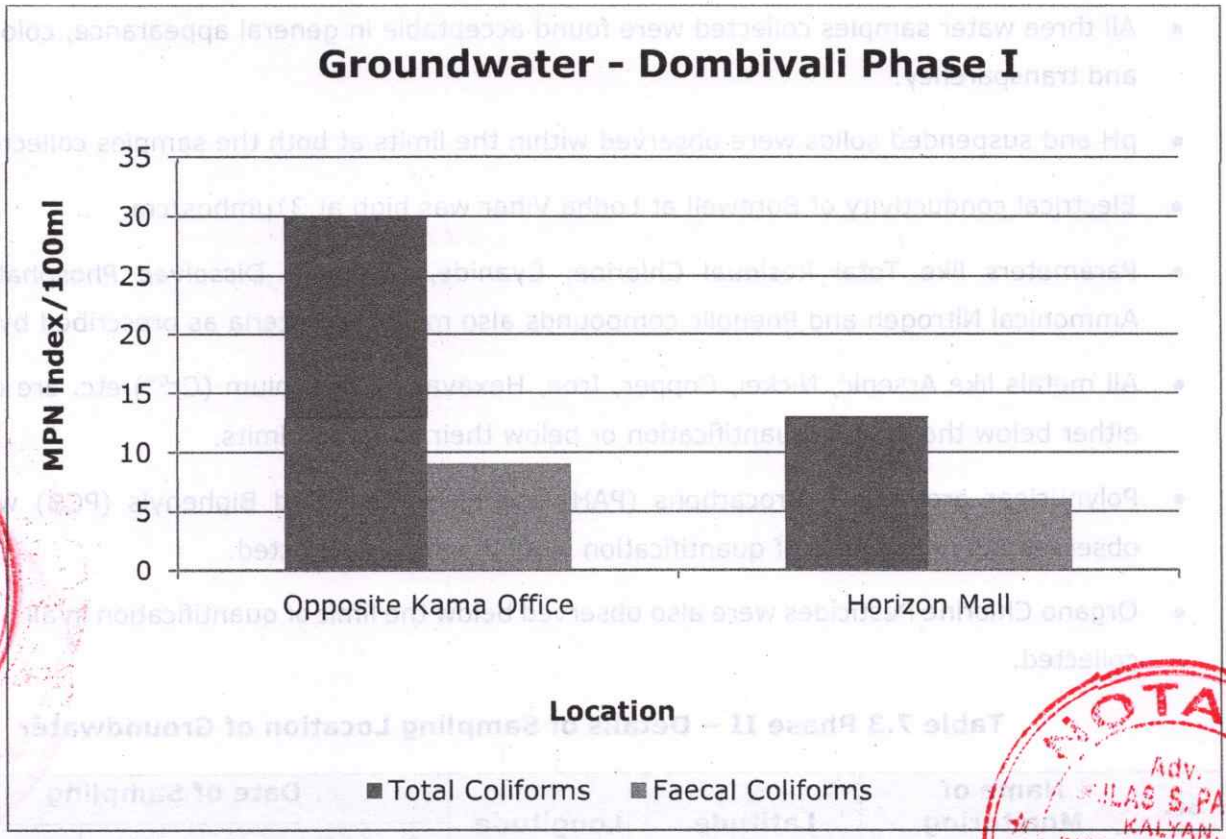
Graphs - Groundwater Quality of MIDC Dombivali Phase I

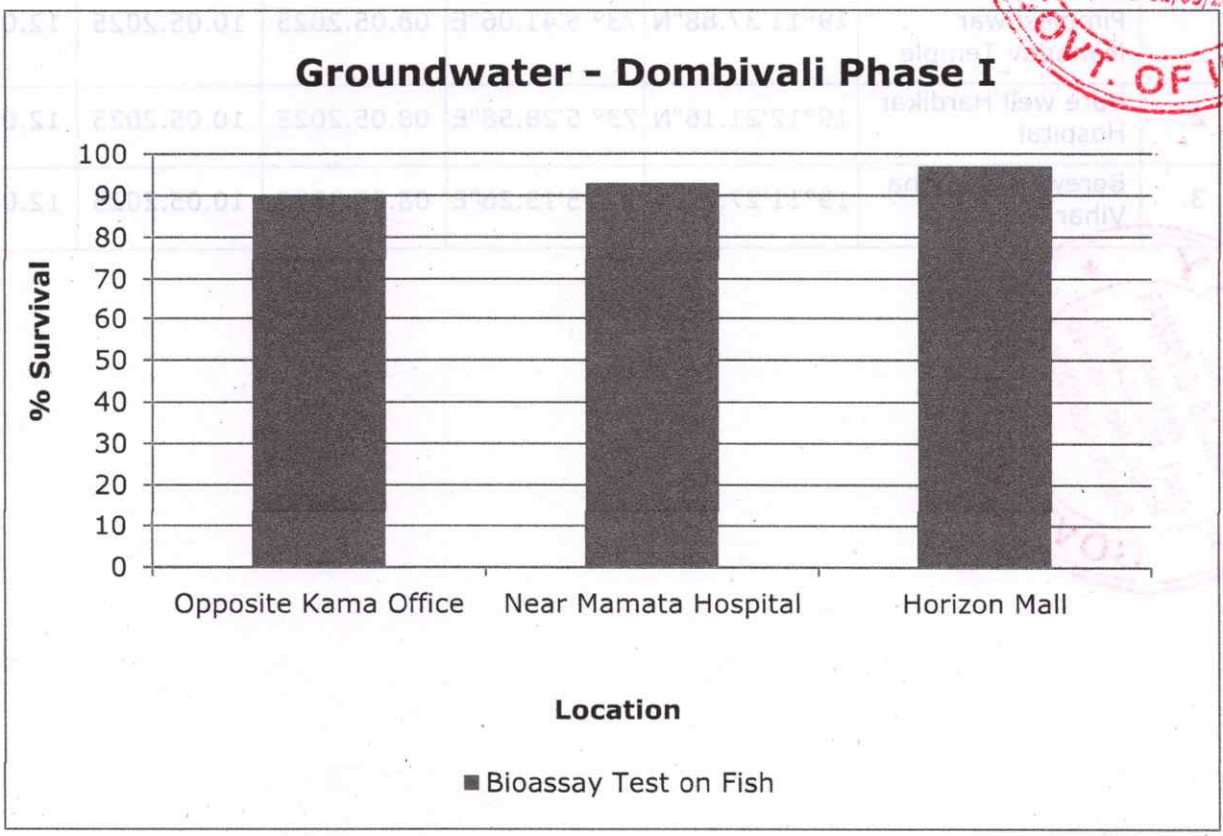





Groundwater - Dombivali Phase I
Concentration (mg/L)
100
90
80
70
60
50
40
30
20
10
0
Pimpleshwar Mahadev Temple
Hardikar Hospital
Lodha Vihar
Location
TDS


Groundwater - Dombivali Phase I
Concentration (µmhos/cm)
200
180
160
140
120
100
80
60
40
20
0
Opposite Kama Office
Near Mamata Hospital
Horizon Mall
Location
Electrical Conductivity





2. **MIDC Phase II:** From MIDC Phase II, three groundwater samples are collected.

- All three water samples collected were found acceptable in general appearance, colour, smell and transparency.
- pH and suspended solids were observed within the limits at both the samples collected.
- Electrical conductivity of Borewell at Lodha Vihar was high at 31µmhos/cm.
- *Parameters like Total Residual Chlorine, Cyanide, Sulphide, Dissolved Phosphate,* Total Ammonical Nitrogen and Phenolic compounds also meet the criteria as prescribed by CPCB.
- All metals like Arsenic, Nickel, Copper, Iron, Hexavalent Chromium (Cr^{6+}) etc. are observed either below the limit of quantification or below their standard limits.
- Polynuclear aromatic hydrocarbons (PAH) and Polychlorinated Biphenyls (PCB) were also observed below the limit of quantification in all 3 samples collected.
- Organo Chlorine Pesticides were also observed below the limit of quantification in all 3 samples collected.

Table 7.3 Phase II – Details of Sampling Location of Groundwater

Sr. No.	Name of Monitoring Location	Latitude	Longitude	Date of Sampling		
				Round-1	Round-2	Round-3
1.	Bore well water Pimpleshwar Mahadev Temple	19°11'37.88"N	73° 5'41.06"E	08.05.2025	10.05.2025	12.05.2025
2.	Bore well Hardikar Hospital	19°12'21.16"N	73° 5'28.58"E	08.05.2025	10.05.2025	12.05.2025
3.	Borewell at Lodha Vihar	19°11'27.55"N	73° 5'15.26"E	08.05.2025	10.05.2025	12.05.2025

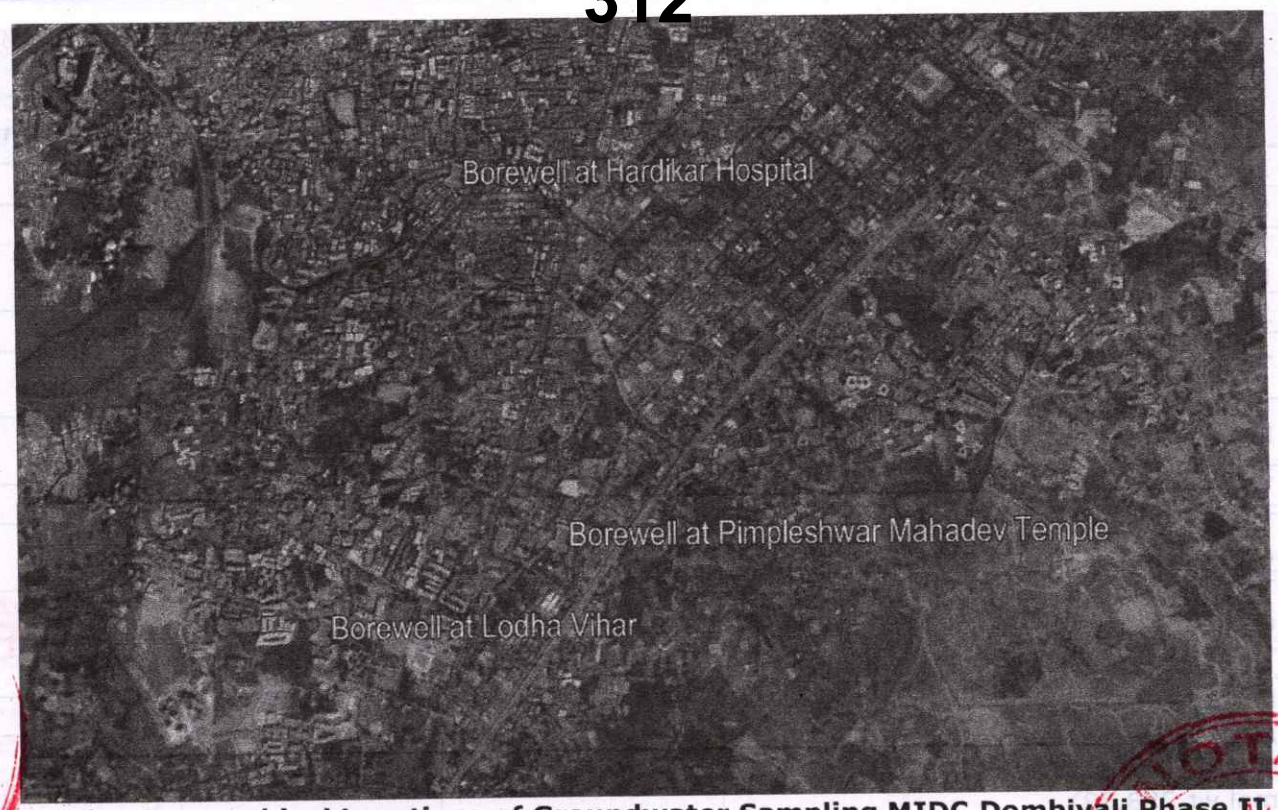


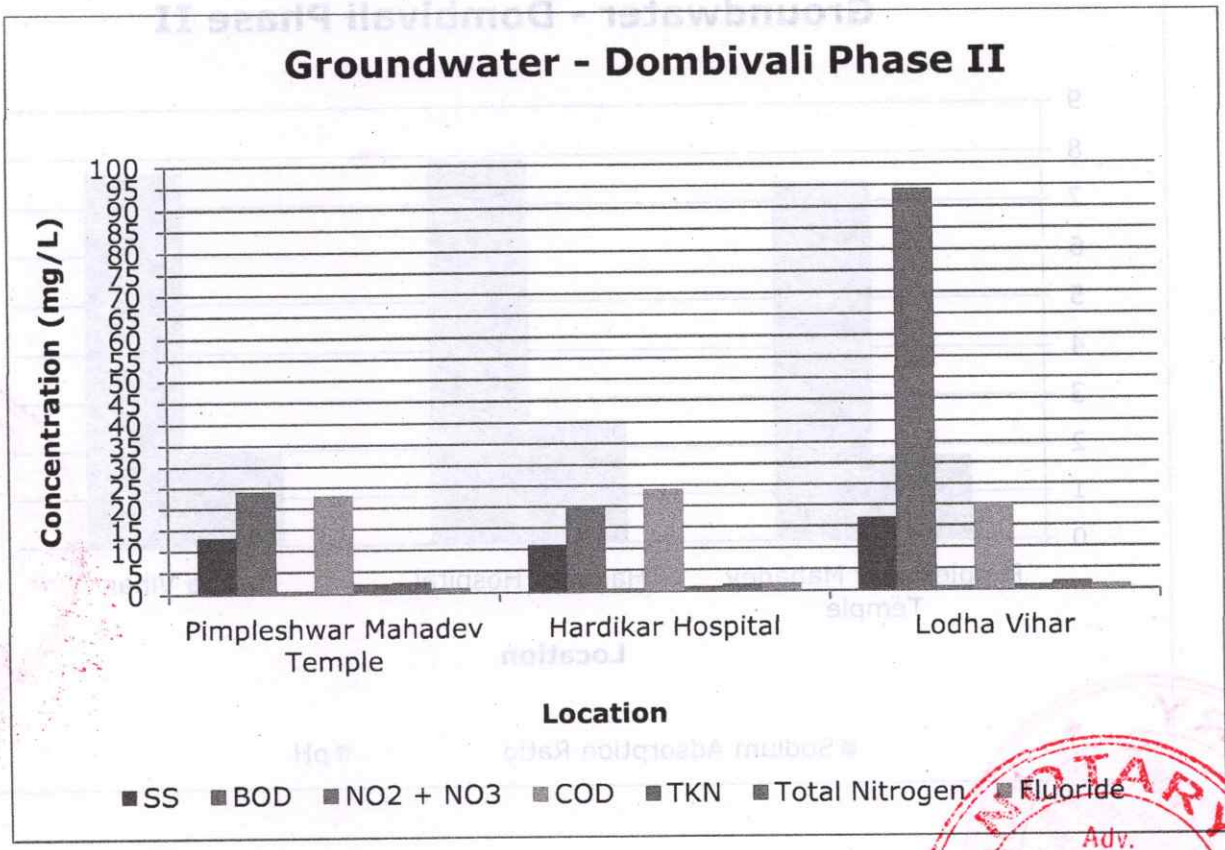
Fig. Geographical Locations of Groundwater Sampling MIDC Dombivali Phase II

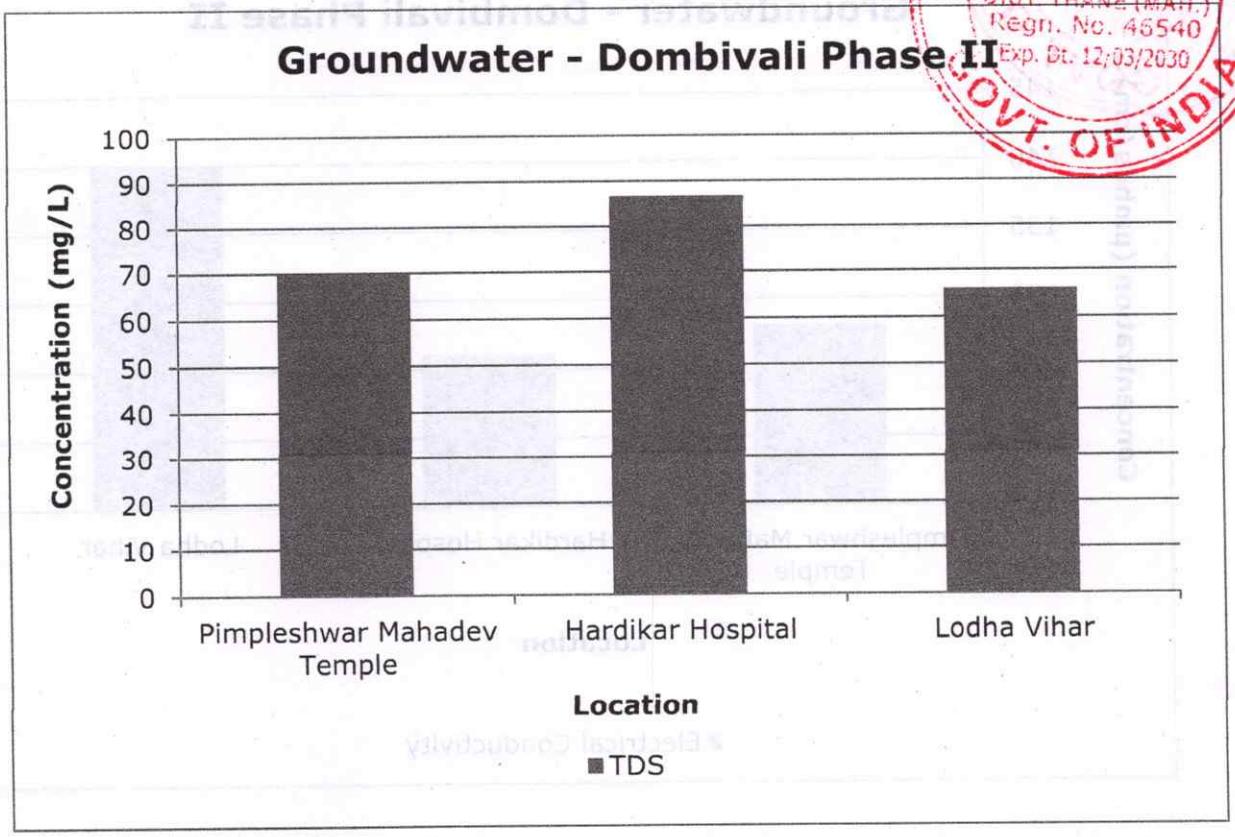
Table 7.4 Phase II – Results of Groundwater

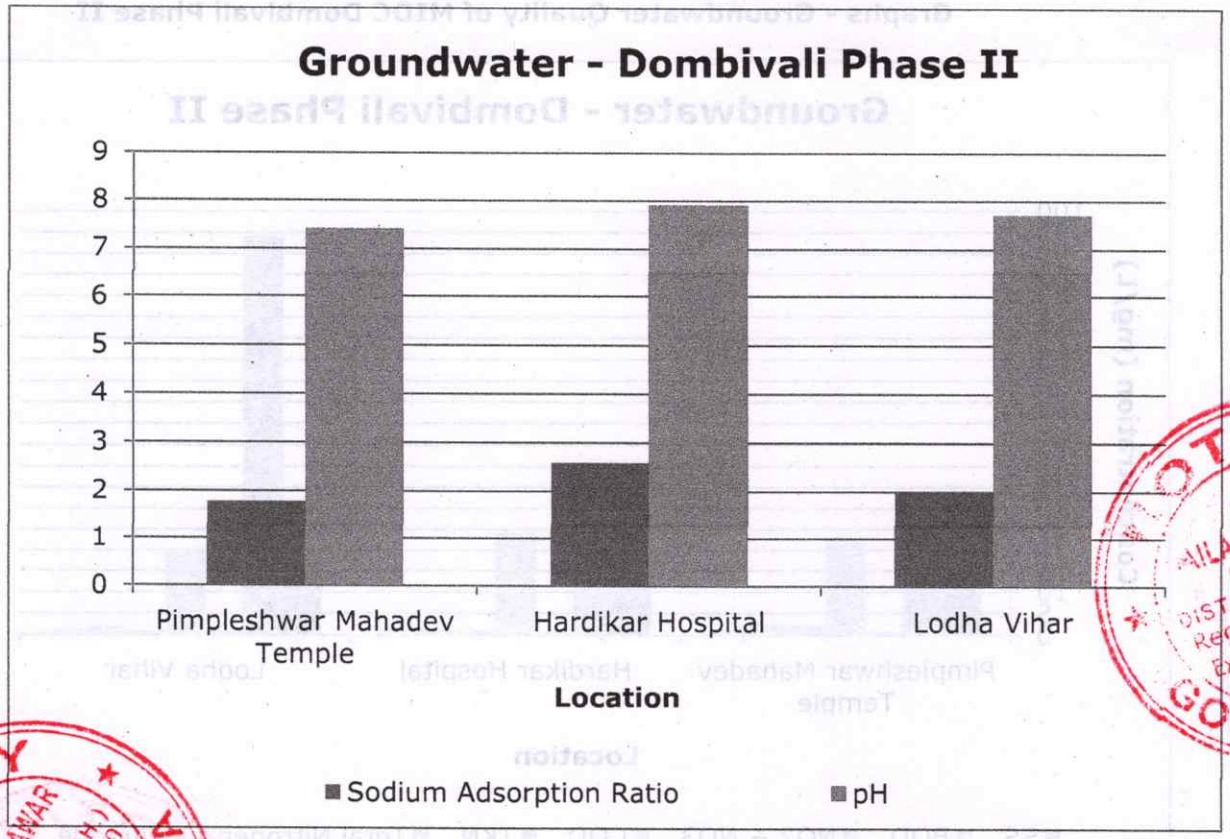
Parameters	Unit	Results		
		Pimpleshwar Mahadev Temple	Hardikar Hospital	Lodha Vihar
Sanitary Survey	-	Reasonably clean neighbourhood	Reasonably clean neighbourhood	Reasonably clean neighbourhood
General Appearance	-	No Floating Matter	No Floating Matter	No Floating Matter
Transparency	m	NA	NA	NA
Temperature	°C	28	29	28
Colour	Hazen	1	1	1
Smell	-	Agreeable	Agreeable	Agreeable
pH	-	7.4	7.9	7.7
Oil & Grease	mg/L	BLQ	BLQ	BLQ
Suspended Solids	mg/L	13	11	17
Total Dissolved Solids	mg/L	70	77	91
Chemical Oxygen Demand	mg/L	23	24	20
Biochemical Oxygen Demand (3 days, 27°C)	mg/L	6	6	5
Electrical Conductivity (at 25 °C)	µmho/cm	128	126	140
Nitrite Nitrogen (as NO_2)	mg/L	BLQ	BLQ	BLQ
Nitrate Nitrogen (as NO_3)	mg/L	0.60	0.70	0.70
(NO_2 + NO_3)-Nitrogen	mg/L	0.60	0.70	0.70
Free Ammonia (as NH_3-N)	mg/L	BLQ	BLQ	BLQ
Total Residual Chlorine	mg/L	BLQ	BLQ	BLQ
Cyanide (as CN)	mg/L	BLQ	BLQ	BLQ

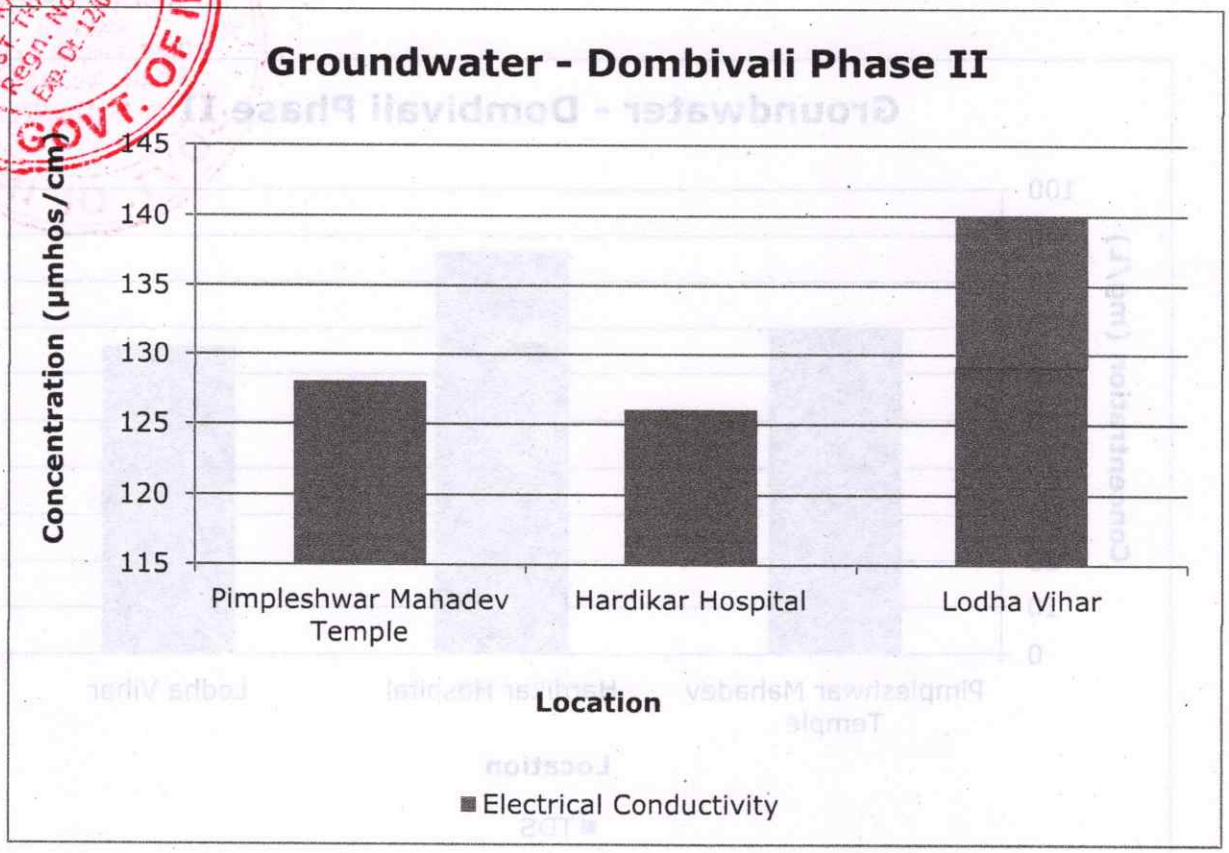
Parameters	Unit	Results		
		Pimpleshwar Mahadev Temple	Hardikar Hospital	Lodha Vihar
Fluoride (as F)	mg/L	1.31	1.13	1.56
Sulphide (as H_2S)	mg/L	BLQ	BLQ	BLQ
Dissolved Phosphate (as P)	mg/L	BLQ	BLQ	BLQ
Sodium Adsorption Ratio	-	1.05	1.77	2.58
Total Coliforms	MPN Index/ 100 ml	1407	130	260
Faecal Coliforms	MPN Index/ 100 ml	166	4	142
Total Phosphate (as P)	mg/L	BLQ	BLQ	BLQ
Total Kjeldahl Nitrogen (as N)	mg/L	1	2	1
Total Ammonia (NH_4+NH_3)-Nitrogen	mg/L	0.86	0.5	0.69
Total Nitrogen	mg/L	2.09	2.35	1.46
Phenols (as C_6H_5OH)	mg/L	BLQ	BLQ	BLQ
Anionic Detergents (as MBAS Calculated as LAS, mol.wt.288.38)	mg/L	BLQ	BLQ	BLQ
Organo Chlorine Pesticides	µg/L	BLQ	BLQ	BLQ
Polynuclear aromatic hydrocarbons (as PAH)	mg/L	BLQ	BLQ	BLQ
Polychlorinated Biphenyls (PCB)	mg/L	BLQ	BLQ	BLQ
Zinc (as Zn)	mg/L	BLQ	BLQ	BLQ
Nickel (as Ni)	mg/L	BLQ	BLQ	0.016
Copper (as Cu)	mg/L	BLQ	BLQ	BLQ
Hexavalent Chromium (as Cr^{6+})	mg/L	BLQ	BLQ	BLQ
Total Chromium (as Cr)	mg/L	BLQ	BLQ	BLQ
Total Arsenic (as As)	mg/L	BLQ	BLQ	BLQ
Lead (as Pb)	mg/L	BLQ	BLQ	BLQ
Cadmium (as Cd)	mg/L	BLQ	BLQ	BLQ
Mercury (as Hg)	mg/L	BLQ	BLQ	BLQ
Manganese (as Mn)	mg/L	BLQ	BLQ	BLQ
Iron (as Fe)	mg/L	BLQ	BLQ	BLQ
Vanadium (as V)	mg/L	BLQ	BLQ	BLQ
Selenium (as Se)	mg/L	BLQ	BLQ	BLQ
Boron (as B)	mg/L	BLQ	BLQ	BLQ
Bioassay Test on fish	% survival	97	93	90

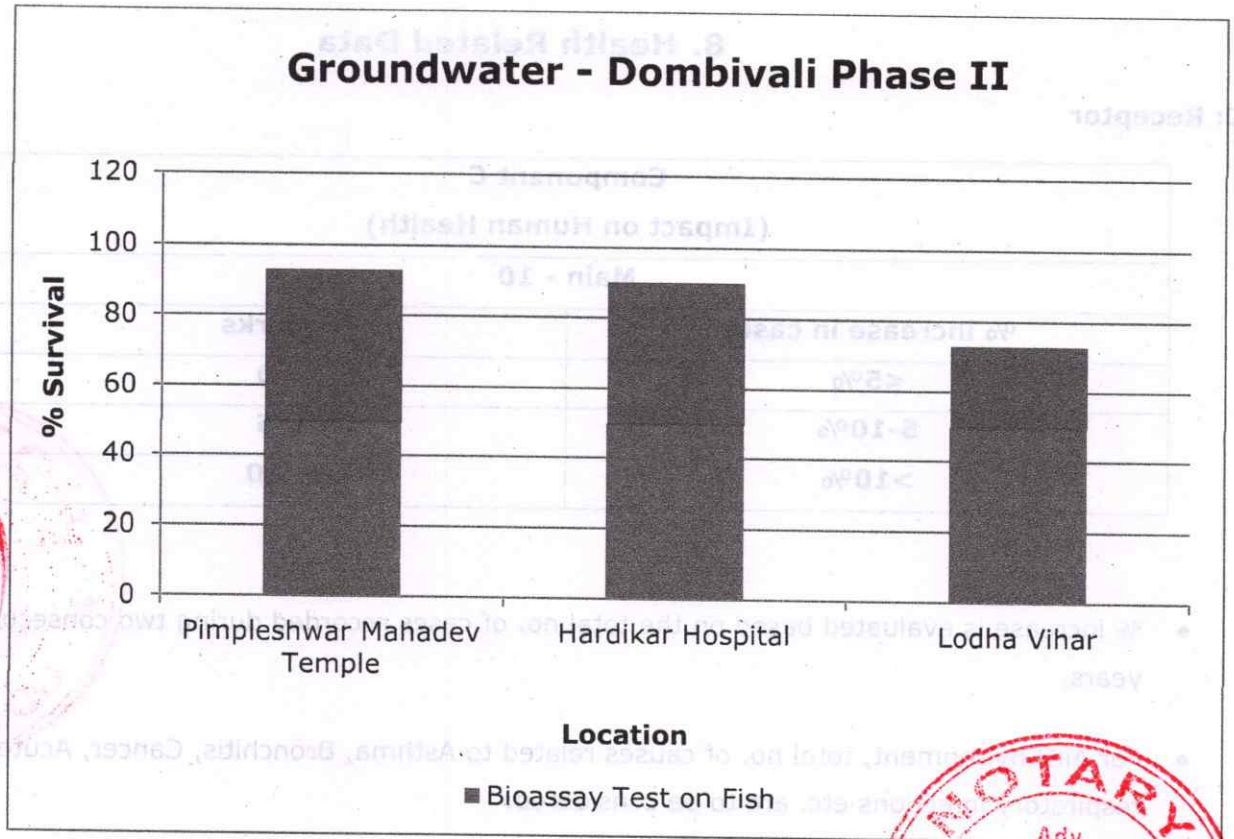
Graphs - Groundwater Quality of MIDC Dombivali Phase II

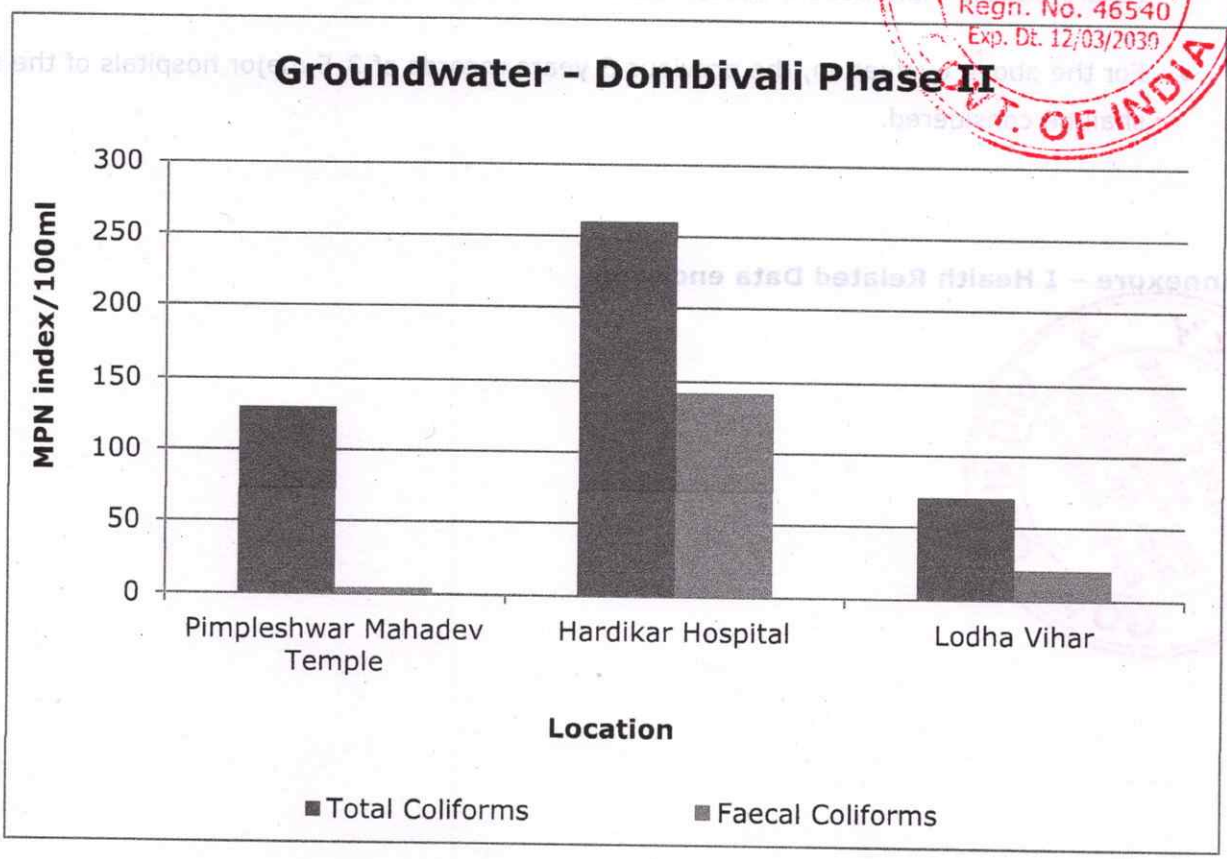





Groundwater - Dombivali Phase II
9
8
7
6
5
4
3
2
1
0
Pimpleshwar Mahadev Temple
Hardikar Hospital
Lodha Vihar
Location
Sodium Adsorption Ratio
pH


Groundwater - Dombivali Phase II
Concentration (µmhos/cm)
145
140
135
130
125
120
115
Pimpleshwar Mahadev Temple
Hardikar Hospital
Lodha Vihar
Location
Electrical Conductivity





8. Health Related Data

C: Receptor

Component C (Impact on Human Health)	
Main - 10	
% increase in cases	**Marks**
<5%	**0**
5-10%	**5**
>10%	**10**

- % increase is evaluated based on the total no. of cases recorded during two consecutive years.
- For Air Environment, total no. of causes related to Asthma, Bronchitis, Cancer, Acute respiratory infections etc. are to be considered.
- For surface water/ Groundwater Environment, cases related to Gastroenteritis, Diarrhoea, renal (kidney) malfunction, cancer etc are to be considered.
- For the above evaluation, the previous 5 years records of 3-5 major hospitals of the area shall be considered.

Annexure – I Health Related Data enclosed.

9. CEPI Score

Comprehensive Environmental Pollution Index (CEPI) is intended to act as early warning tool which helps in categorization of industrial clusters/ areas in terms of priority of needing attention. The CEPI score have been calculated based on CPCB Letter No. B-29012/ESS (CPA)/2015-16 dated 26th April 2016. The scoring system involves an algorithm that considers the basic selection criteria. It is proposed to develop the CEPI based on Sources of pollution, real time observed values of the pollutants in the ambient air, surface water and Groundwater in & around the industrial cluster and health related statistics.

Table 8.1 CEPI score of the pre-monsoon season 2025 is given below

	A1	A2	A	B	C	D	CEPI
Air Index	4	4	16	0	10	5	**31.00**
Water Index	2.5	4	10	17.75	10	5	**42.80**
Land Index	1.5	4	6	9.75	10	5	**30.80**
						Aggregated CEPI	**48.30**

Table 8.2 Comparison of CEPI Scores

	Air Index	Water Index	Land Index	CEPI
CEPI score June 2025	31.00	42.80	30.80	**48.30**
CEPI score March 2025	35.00	37.00	33.80	**44.50**
CEPI score June 2024	29.00	46.50	51.00	**57.60**
CEPI score March 2024	38.50	40.30	32.50	**47.80**
CEPI score June 2023	28.30	54.80	30.00	**58.60**
CEPI Score March 2023	34.30	57.50	45.00	**64.10**
CEPI score June 2021	21.00	56.00	45.00	**60.20**
CEPI Score March 2021	21.00	59.80	48.00	**63.90**
CEPI score March 2020	57.30	49.00	29.30	**63.40**
CEPI score June 2019	44.10	38.50	42.30	**53.20**
CEPI score March 2019	45.90	41.55	40.90	**55.09**

	Air Index	Water Index	Land Index	CEPI
CEPI score June 2018	46.31	40.60	46.20	**46.20**
CEPI score March 2018	54.88	48.63	46.04	**64.98**
CPCB CEPI score March 2018	62.00	63.50	27.25	**69.67**

CEPI Score Calculation:

Dombivali, Maharashtra - CEPI - JUNE 2025

Ambient Air Analysis report

Pollutant	Group	A1	A2	A (A1 X A2)
Benzene	C	3	Large	
PM2.5	B	0.5		
PM_{10}	B	0.5		
		4	**4**	**16**

Pollutant	Avg (1)	Std (2)	EF (3) [(3)=(1)/(2)]	No. of samples Exceeding (4)	Total no. of samples (5)	SNLF Value (6) [(6)=(4)/(5)x(3)]	SNLF score (B)	
Benzene	1.97	2	0.99	0	8	0.00	L	0
PM2.5	11.79	5	2.36	0	8	0.00	L	0
PM_{10}	41.79	100	0.42	0	8	0.00	L	0
B score = (B1+B2+B3)							**B**	**0**

C	**10**	**>10 %**
D	**5**	**A-IA-A**

Air CEPI	**(A+B+C+D)**	**31.0**

Water Quality Analysis report

Pollutant	Group	A1	A2	A (A1 X A2)
BOD	B	2	Large	
TN	A	0.25		
TKN	A	0.25		
		2.5	**4**	**10**

Pollutant	Avg (1)	Std (2)	EF (3) [(3)=(1)/(2)]	No. of samples Exceeding (4)	Total no. of samples (5)	SNLF Value (6) [(6)=(4)/(5)x(3)]	SNLF score (B)	
BOD	11.53	8	1.44	4	12	0.48	M	15
TN	2.48	15	0.17	0	12	0.00	L	0
TKN	1.15	3	0.38	1	12	0.03	M	2.75
B score = (B1+B2+B3)							**B**	**17.75**

C	**10**	**>10 %**
D	**5**	**A-IA-A**

Water CEPI	**(A+B+C+D)**	**42.8**

Ground Water Quality Analysis report

Pollutant	Group	A1	A2	A (A1 X A2)
F	A	1	Large	
TKN	A	0.25		
TDS	A	0.25		
		1.5	**4**	**6**

Pollutant	Avg (1)	Std (2)	EF (3) [(3)=(1)/(2)]	No. of samples Exceeding (4)	Total no. of samples (5)	SNLF Value (6) [(6)=(4)/(5)x(3)]	SNLF score (B)	
F	1.26	1.5	0.84	1	6	0.14	M	9.75
TKN	1.44	3	0.48	0	6	0.00	L	0
TDS	81.17	2000	0.04	0	6	0.00	L	0
B score = (B1+B2+B3)							**B**	**9.75**

C	**10**	**>10 %**
D	**5**	**A-IA-A**

Land CEPI	**(A+B+C+D)**	**30.8**

Water CEPI Score (im) **42.8**

Air CEPI score (i2) **31.0**

Land CEPI Score (i3) **30.8**

Aggregated CEPI Score = **im + {(100-im)*i2/100)*i3/100)}**

where, im = maximum sub-index; and i2 and i3 are sub-indices for other media

CEPI Score **48.30**

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10. Conclusion

Ambient Air Quality

- The AAQ stations were identified in the CEPI impact area to cover both upwind and cross wind directions and AAQ survey was conducted.
- All parameters are well within the limits as per NAAQS.
- In the CEPI score calculated for Air Environment (35.00) by CPCB in March 2018, PM_{10} and $PM_{2.5}$ have exceeded which may also be due to the vehicular emissions.
- In the present study, air index is calculated as 31.00

Surface Water Quality

- Higher concentration of BOD and Total Kjeldhal Nitrogen (TKN) was observed in the surface water samples collected which may be due to an increase in microbial activity, leaking septic systems or discharges from sewage treatment plants.
- All the industries in the Dombivali region are either reusing the treated trade effluent as sewage in their process or gardening or are disposed into Sea.
- The Environmental Pollution Index for water is observed as 42.8

Groundwater Quality

- Groundwater samples were collected from different Bore well in the region.
- In the CEPI score calculated for Land Environment by CPCB in March 2018, BOD and Total Ammonia Nitrogen have exceeded in all the samples collected and hence the score was observed as 33.80
- In the present study, environmental pollution index of land is 30.80

CEPI Score

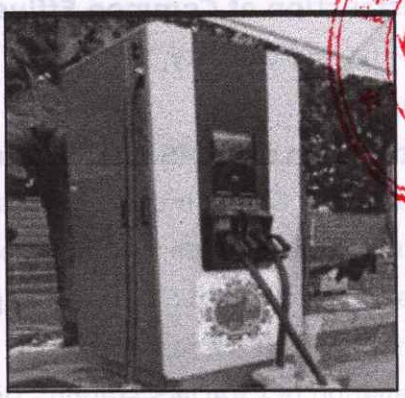
- The CEPI Score pre-monsoon season is 48.30.
- Collective efforts of MPCB, administration and environmental organizations have resulted in improved and safer groundwater. This shows a decline in pollution levels in Dombivali.
- The present study is the compilation of pre-monsoon season, which results in dilution of environmental samples resulting in lower pollution load, hence also affecting the total score.
- In conclusion, a decrease of approx. 31% in CEPI score is observed from 69.67 of the CPCB score of March 2018 to 48.30 in June 2025.

11. Efforts Taken by MPCB to Control and Reduce Environmental Pollution Index

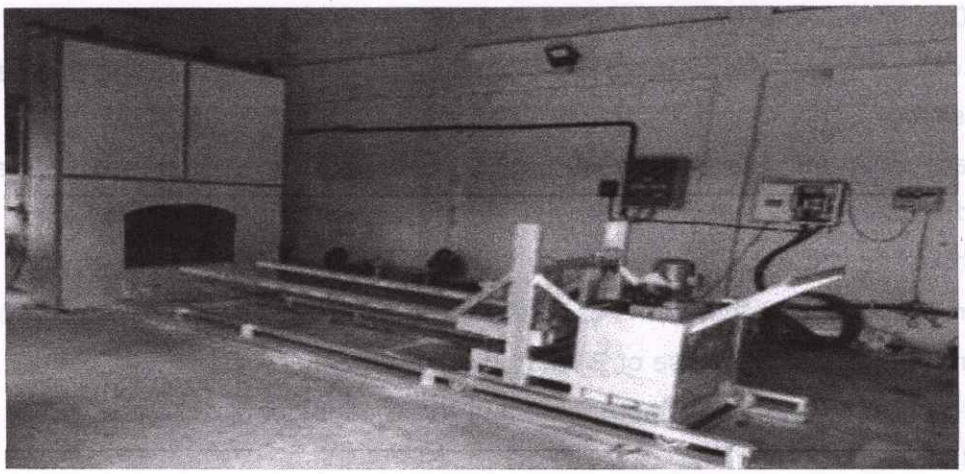
- Drive against open burning of biomass, crop residue, garbage, leaves, etc.
- **Organic Waste Compost machines**: Residential complexes or Commercial complexes more than 20,000 sqm BUA has installed organic waste compost machines individually.
- **Waste collection and segregation centres**: KDMC has provided waste collection segregation centres at various places and also segregation is carried out at MSW processing sites.
- **Construction of Common Effluent Treatment plant (CETP)**: Two CETPs are in operation. 1. CETP having capacity 16 MLD for textile effluent 2, CETP having capacity 1.5 MLD for chemical effluent.
- **Installation of CEMS installed for Air and Water in Large and Medium scale RED category industries**: Online monitoring system with SCADA and NRV system provided by the industries.
- Arrangement of scientific collection and treatment of sewage generated: KDMC has provided 9 STPs, out of which 6 STPs are in operation. Rest will be brought into operation, so as to cater the entire 216 MLD domestic effluent.
- Installation of CAAQMS station: Two stations
- Number of CAAQMS proposed for future: Two stations are installed one is at Pimpleshwar Temple, MIDC Dombivali, Phase-II and second at 'B' Ward KDMC, Kalyan (W).
- Two Monitoring stations under the National Water Quality Monitoring Programme (NWMP) are established.
- Steps are taken for industrial areas/other units to recycle 100% treated effluent to achieve zero liquid discharge (ZLD)- Forty units have achieved Zero Liquid Discharge.
- Steps taken to reduce dust emission: -

  1. Board has changed the norms of TPM from 150 mg/Nm^3 to 50 mg/Nm^3 in consent.
  2. Board is promoting the use of PNG as fuel to the boiler.
  3 Concreted road with tree plantation along the road is going on
- Tree plantation: 6000 nos.
- Other initiatives taken to control and reduce pollution in air, surface water and groundwater:
  a) To know the status of air quality in Kalyan Dombivali area MPC Board has installed two CAAQM stations and two AAQM stations. Out of which two are installed in MIDC area and other two are installed other than MIDC area.
  b) The MPC Board is continuously in touch with industry to use the proper quantity of fuel to the boiler to avoid the overload and thereby emission. As well as ensure that air pollution control system provided by industry are continuously operation are not
  c) Night monitoring was also carried out to check the status during the night period.
  d) Industries located in the MIDC area are discharging partially treated effluent to CETP through underground pipelines. No direct discharge of effluent to the nallah by the industries.
- Introduction of Deep Clean Drive Campaign, wherein Daily Targeted Roads are Washed & Cleaned using Non-Potable Water.

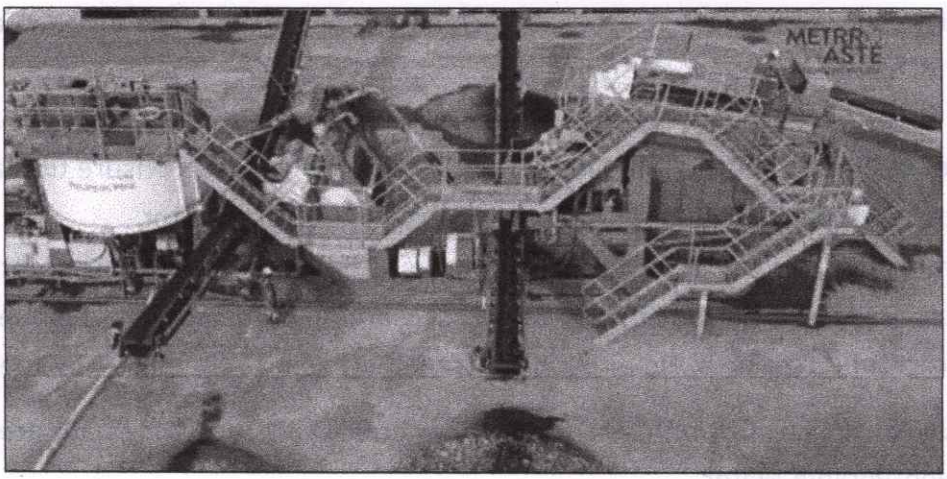
- In F.Y 2023-24, from Last Winter i.e., Start of Nov 2023 to till date, approx. 1,04,493.938 Kms. of road length is washed with the help of more than 5000 Tankers.
- For Suppression of road dust Sprinkling Machines & Misting Machines are deployed.
- Under Deep Clean Drive Campaign, more than 2250 MT of garbage & more than 875 MT of odd trash/abandoned materials were removed.
- Deployment of 114 E-buses, 67 old diesel buses [more than 10 years] are phased out from fleet & monthly average 35,500 litres of diesel is saved resulting in reduced carbon emissions.



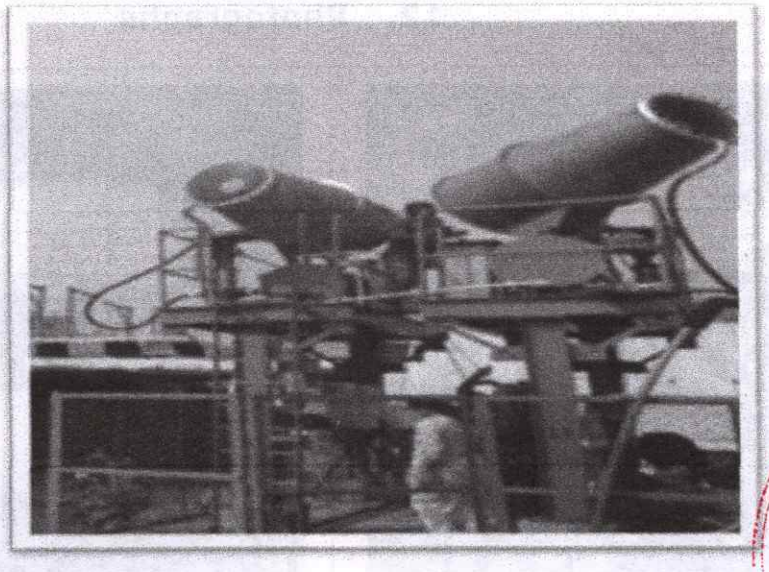
Deployment of E-buses, and charging stations



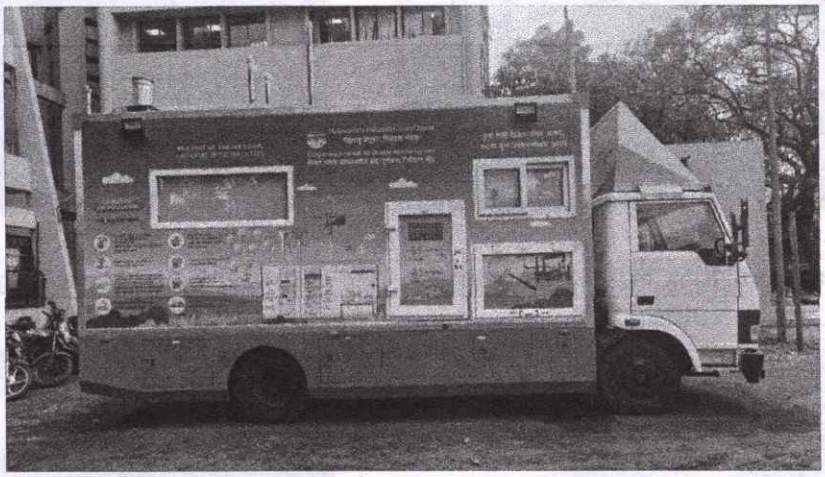
PNG Crematorium



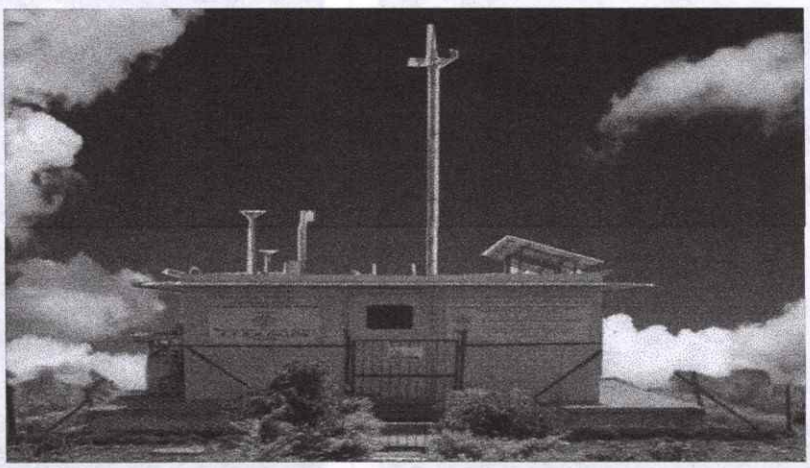
C&D Plant – 300 TPD



Stationary Water Cannons

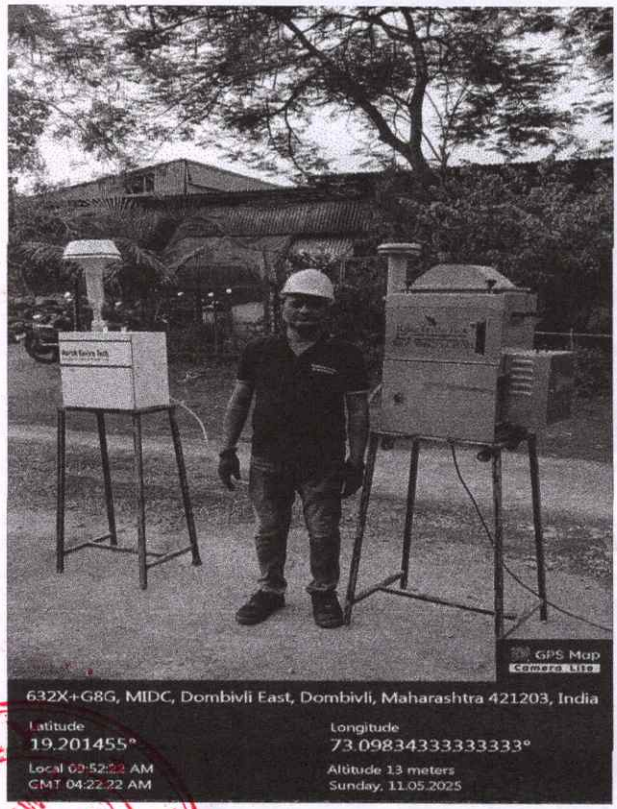


Ambient Air Quality Monitoring (AAQM) Van

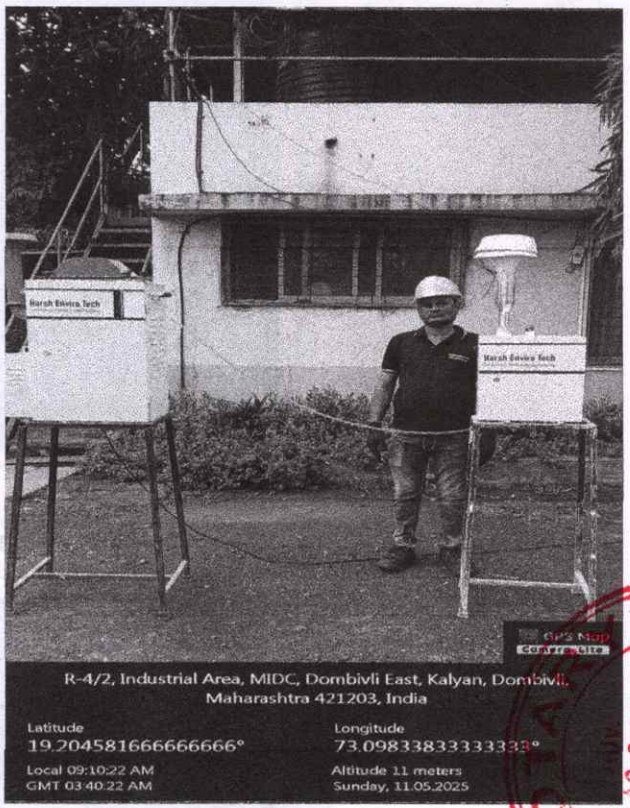


Continuous Ambient Air Quality Monitoring Station (CAAQMS)

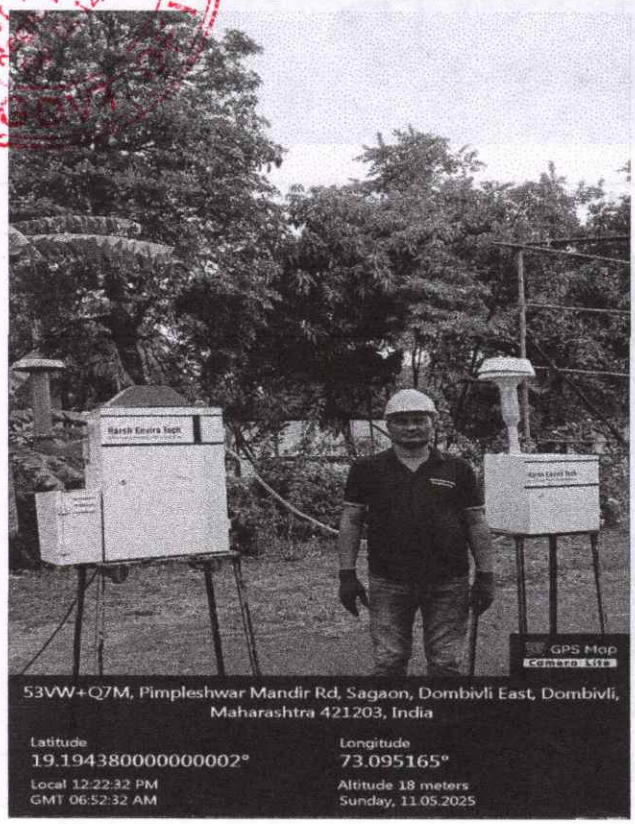
12. Photographs



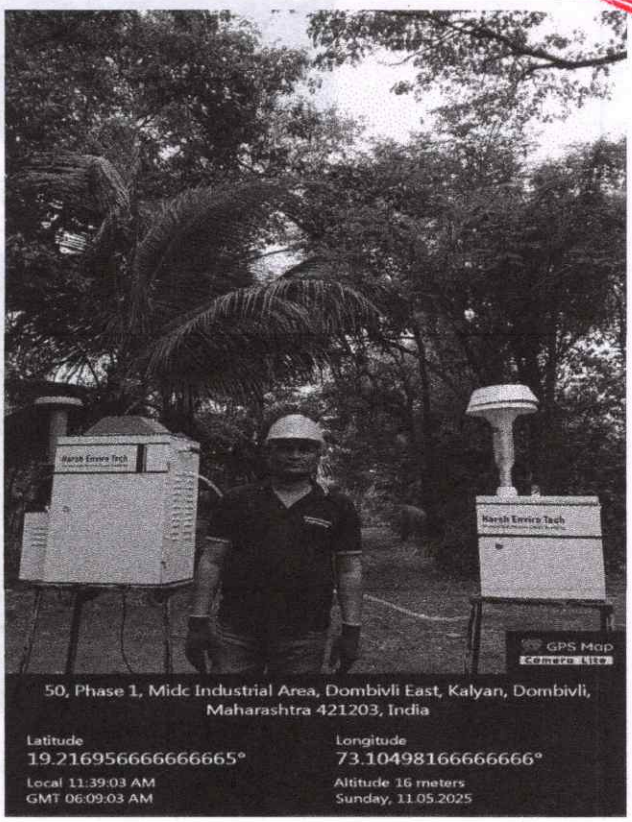
Ambient Air Sampling MIDC, Dombivali East, Dombivali



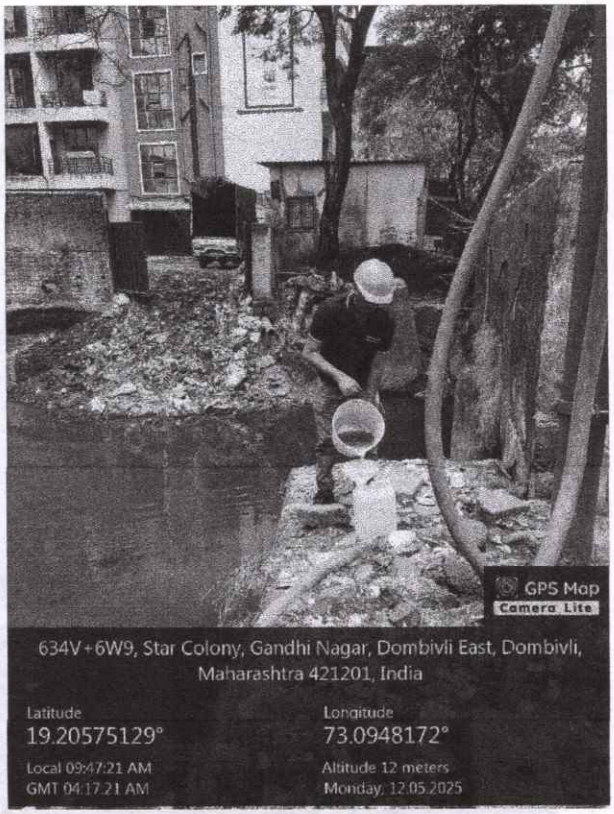
Ambient Air Sampling R-4/2, Industrial Area, Kalyan Dombivali



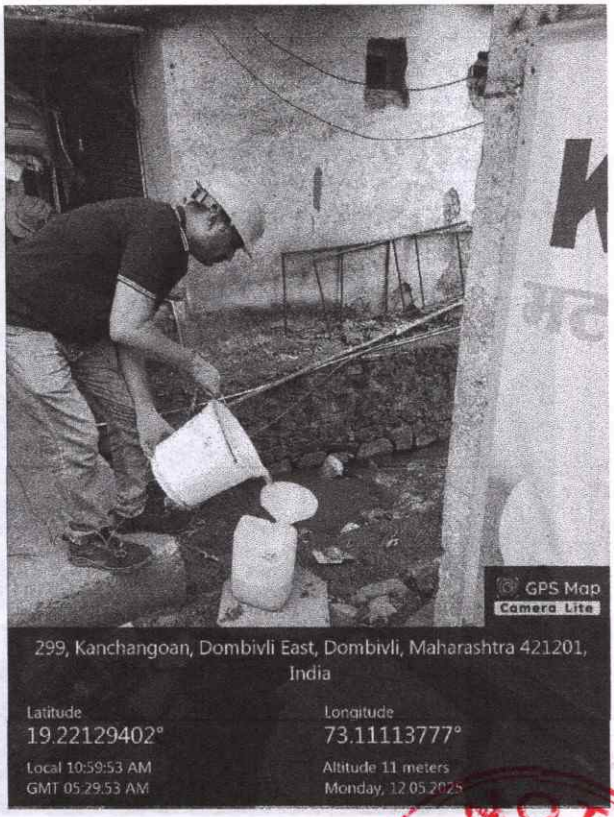
Ambient Air Sampling 53VW+Q7M, Pimpleshwar Mandir Rd, Sagaon Dombivali



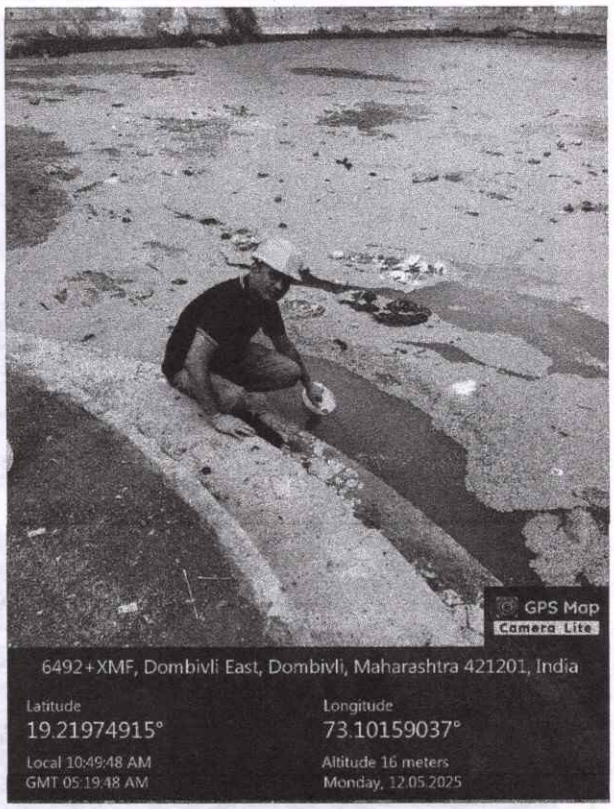
Ambient Air Sampling Phase 1, MIDC Industrial Area, Kalyan Dombivali



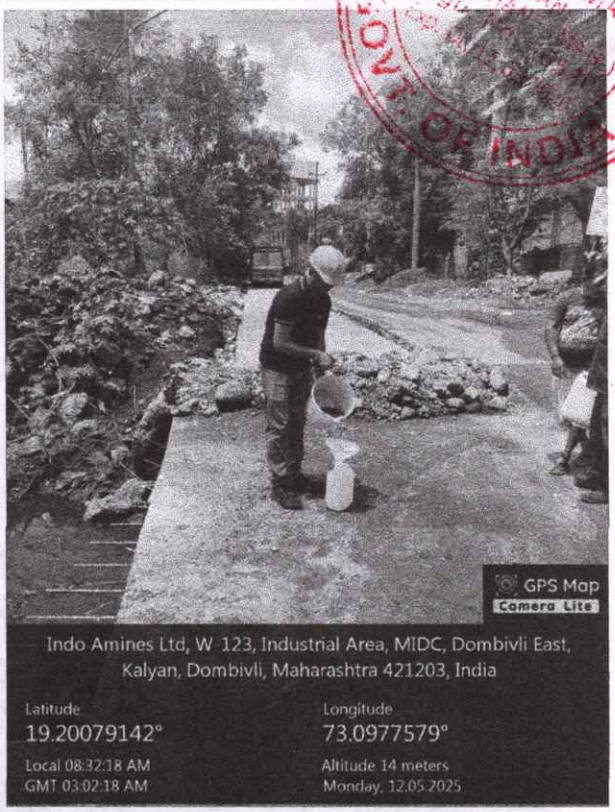
Surface Water Sampling, Star Colony, Gandhi Nagar, Dombivali East, Dombivali



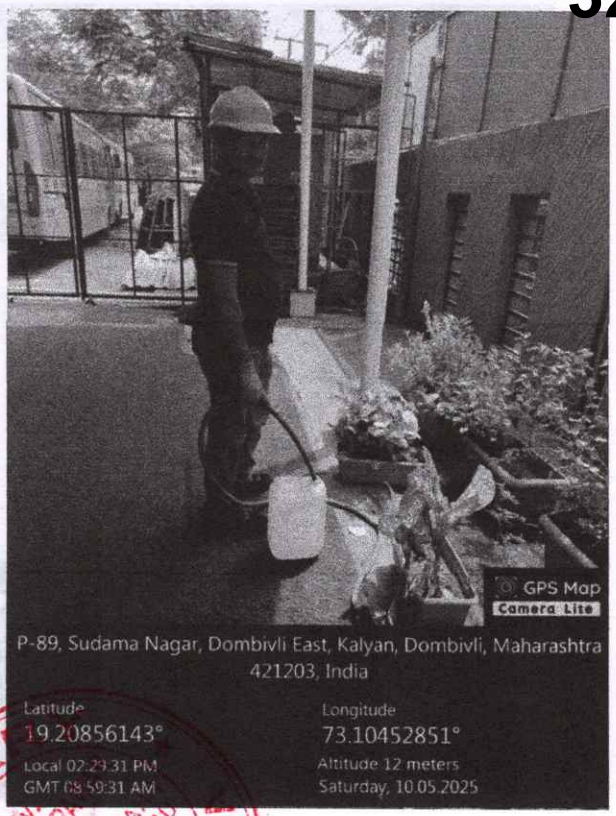
Surface Water Sampling Kanchangaon, Dombivali East, Dombivali



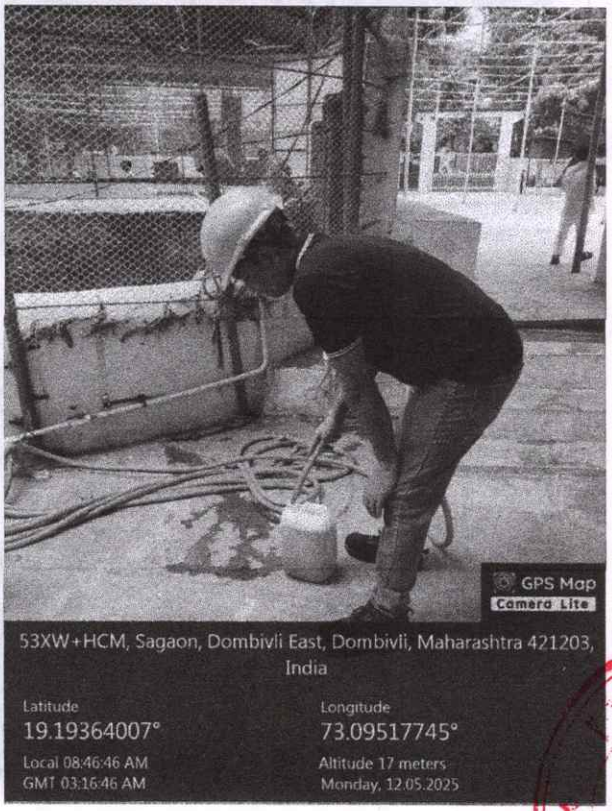
Surface Water Sampling Dombivali East, Dombivali



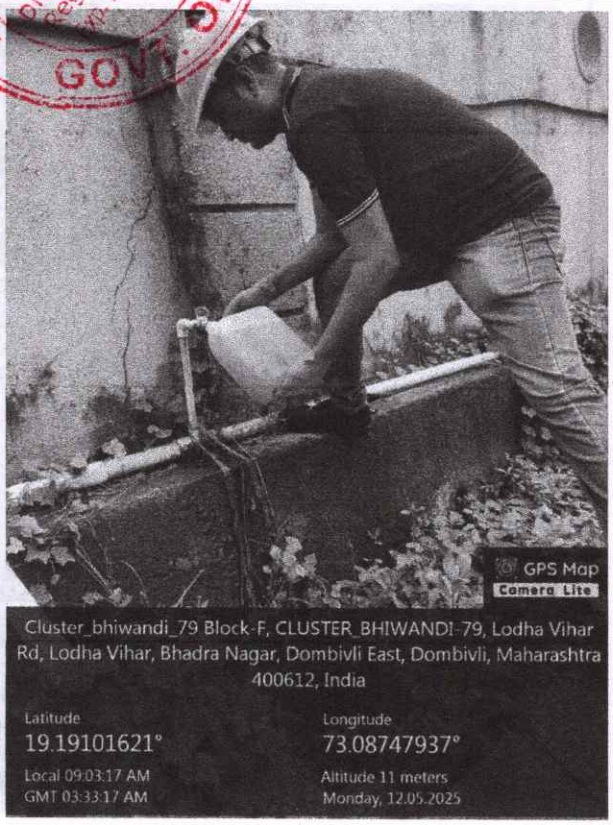
Surface Water Sampling Indo Amines Ltd, Kalyan Dombivali



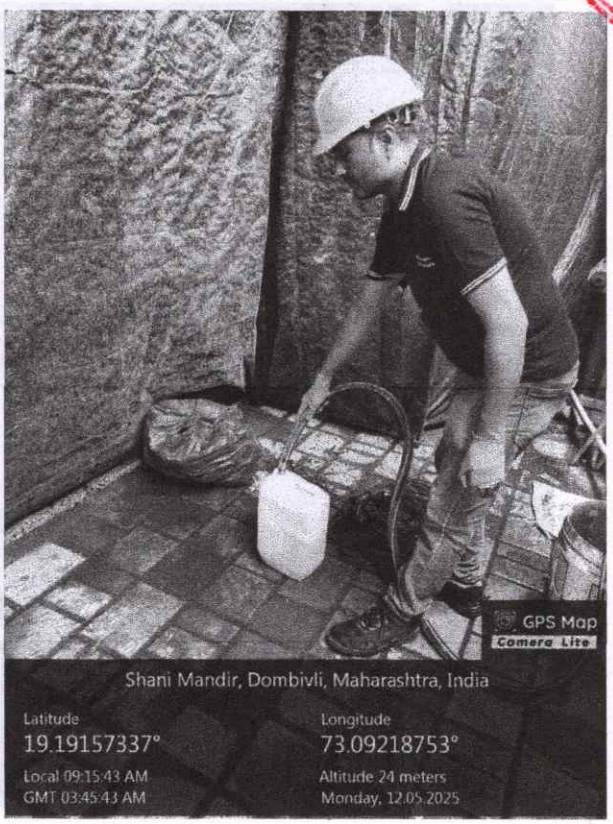
Ground Water Sampling, Sudama Nagar, Dombivali



Ground Water Sampling Sagaon, Dombivali



Ground Water Sampling Bhadra Nagar, Dombivali East, Dombivali



Ground Water Sampling Shani Mandir, Dombivali

Annexure – I Health Related Data

HEALTH STATISTICS

Required for Comprehensive Environmental Pollution Index (CEPI)

Maharashtra Pollution Control Board (MPCB), MAHARASHTRA

Name of the Polluted Industrial Area (PIA)	DOMBIVALI
Name of the major health center/ organization	Mamta Hospital
Name and designation of the Contact person	Unit Head.
Address	

S No.	Diseases	No. of Patients Reported	
		Year 2023	Year 2024
AIRBORNE DISEASES			
1.	Asthma	47	67
2.	Acute Respiratory Infection	189	210
3.	Bronchitis	140	160
4.	Cancer	15	21
WATERBORNE DISEASES			
1.	Gastroenteritis	119	138
2.	Diarrhea	80	105
3.	Renal diseases	50	60
4.	Cancer	15	21

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Date: 10/2/25

Signature

SRI MAMATA HOSPITAL DOMBIVALI

HEALTH STATISTICS

Required for Comprehensive Environmental Pollution Index (CEPI)

Maharashtra Pollution Control Board (MPCB), MAHARASHTRA

Name of the Polluted Industrial Area (PIA)	DOMBIVALI
Name of the major health center/ organization	Municipal Hospital
Name and designation of the Contact person	
Address	

S No.	Diseases	No. of Patients Reported	
		Year 2023 Jan. 2023 to Dec. 2023 Jan 2023	Year 2024 Jan. 2024 to Dec. 2024 Jan. 2024
AIRBORNE DISEASES			
1.	Asthma	04	05
2.	Acute Respiratory Infection	12	20
3.	Bronchitis	01	01
4.	Cancer	Nil	02
WATERBORNE DISEASES			
1.	Gastroenteritis	24	63
2.	Diarrhea	52	131
3.	Renal diseases	01	02
4.	Cancer	01	02

Date: 10/2/2025

10/2/25
Signature

Chief Medical Officer
Shastrinagar Hospital, Dombivli (W)
Kalyan Dombivali Municipal Corporation

10/2/2025

HEALTH STATISTICS

Required for Comprehensive Environmental Pollution Index (CEPI)

Maharashtra Pollution Control Board (MPCB), MAHARASHTRA

Name of the Polluted Industrial Area (PIA)	DOMBIVALI
Name of the major health center/ organization	Hambarde Hospital
Name and designation of the Contact person	
Address	Tai Pingle Chowk OPP Shivaji Hall Dom (E)

S No.	Diseases	No. of Patients Reported	
		Year 2023	Year 2024
AIRBORNE DISEASES			
1.	Asthma	22	18
2.	Acute Respiratory Infection	4	5
3.	Bronchitis	4	4
4.	Cancer	6	4
WATERBORNE DISEASES			
1.	Gastroenteritis	23	25
2.	Diarrhea	23	26
3.	Renal diseases	17	10
4.	Cancer	6	4

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Date:

Signature

Dr. Rajiv K. Hambarde

Reg.No. 53859 (M.

Consulting General & Laparoscopic Surgeon

HAMBARDE HOSPITAL

Reg.No. KMC / HO / GNHR / 02 / 019 / 5435