

APSEZL/EnvCell/2024-25/050**Date: 02.09.2024**

To,
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan,
Sector-10-A, Gandhinagar-382010

Dear Sir,

Sub: Environmental Statement for the financial year ending 31st March 2024 for **MPSEZ Utilities Ltd.**

Ref: PCB ID: 10605, CCA Order No. AWH - 113221, issued dated 10.06.2021 Valid till **07.04.2026**

With reference to the above-mentioned subject and reference, please find enclosed Environmental Statement in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for **MPSEZ Utilities Ltd. (MUL-CETP), Plot No. / Survey No. 141 (Part), Village & Taluka: Mundra, Dist. Kutch - 370421** for the financial year ending 31st March 2024.

Thank you,

Yours faithfully,
For **M/s. MPSEZ Utilities Ltd. (MUL-CETP)**



Authorized Signatory

Encl: As above.

Copy to: The Regional Officer, Gujarat Pollution Control Board, Gandhinagar


Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

FORM V
(See Rule 14)

Environmental Statement for the Financial Year ending 31st March 2024

PART – A

- (i) Name and address of the Owner/
Occupier of the Industry Operation
or Process : Mr. Sujalkumar Shah
CEO – Mundra & Tuna Port
Adani Ports and SEZ Limited
4th Floor, Adani House,
Mundra, Kutch – 370421.
Ph No. (02838) 255000
- (ii) Industry Category : Red-Large
Primary (STC Code) : NA
Secondary (STC Code) : NA
- (iii) Production Capacity : Common Effluent Treatment Plant: 2.5 MLD
- (iv) Year of Establishment : 2011
- (v) Date of last Environment
Statement submitted : 11/09/2023

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

PART – B

Water and Raw Material Consumption

(i) Water Consumption

Water Consumption Cu. Mtr./Day	Average
Process (Chemical Dosing & CETP Operation)	4.74 m ³ /day
Cooling	Nil
Domestic	1.18 m ³ /day

Details of Water Consumption for the year 2023-24 are enclosed as **Annexure – 1**.

Name of Products	Process Water Consumption per unit of Product Output	
	During the current financial year (2022-23)	During the current financial year (2023-24)
Treated water from CETP*	3,08,567 KL	3,07,962 KL

* Unit does not go under any manufacturing process. The unit involves common effluent treatment plant (CETP) having 2.5 MLD capacities for treatment of effluent (domestic + industrial) generated from various SEZ industries, APSEZ common facilities and Mundra village. Treated water from CETP is being utilized in gardening / horticulture activity within CETP & SEZ premises.

Details of Effluent inlet and treated water outlet quantity for the year 2023-24 are enclosed as **Annexure – 1**.

(ii) Raw Material Consumption

Name of Raw Material**	Name of Products	Consumption of Raw Material per Unit of output	
		During the current financial year (2022-23)	During the current financial year (2023-24)
Alum	Effluent Treatment	3286 Kg	2928 Kg
Polyelectrolyte		365 Kg	366 Kg
Sodium Hypochlorite		14600 L	14640 L

** Unit does not go under any manufacturing process. Raw material consumption as dosing chemicals for neutralization and flocculation of effluent.

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

PART – C

Pollutants discharged to Environment/Unit of Output (Parameters as specified in consent issued)

Pollutants	Quantity of pollutants discharged (Mass/day)		Concentrations of pollutants in discharges (mass/volume)		Percentage of variation from prescribed standards with reasons
	Parameters	Avg. Mass Kg/Day	Parameters	Avg.	
(a) Waste Water	pH	-	pH	7.60	There is no variation from prescribed standards in terms of quality of wastewater discharge. 1. The CETP has treated water discharge of 307962 KL during April 2023 – March 2024. 2. Analysis reports of treated water are enclosed as Annexure – 2 .
	Total Suspended Solids	12.53	Total Suspended Solids	14.91	
	Ammonical Nitrogen as NH ₃	15.80	Ammonical Nitrogen as NH ₃	18.80	
	BOD (3 Days @ 27 oC)	29.28	BOD (3 Days @ 27 oC)	34.83	
	COD	102.28	COD	121.69	
(b) Air (DG Stack 380 KVA)	Particulate Matter (PM)	0.0004	Particulate Matter (mg/Nm ³)	21.86	There is no variation from prescribed standards in terms of quality of wastewater discharge. 1. DG set having capacities 380 KVA is provided as a standby power source and used during power failure. Analysis reports of stack monitoring are enclosed as Annexure – 2 . 2. The ambient air quality monitoring is being done regularly (twice a week) through NABL and MoEF&CC recognized laboratory namely M/s Unistar Environment and Research Labs Pvt. Ltd., Vapi. 3. Analysis reports of ambient air quality monitoring are enclosed as Annexure – 2
	Sulphur Dioxide (SO ₂)	0.0004	Sulphur Dioxide (PPM)	8.13	
	Nitrogen Oxide (NO _x)	0.0009	Nitrogen Oxide (NO _x) (PPM)	29.62	

- Unit does not go under any manufacturing process, as the unit involves common effluent treatment plant (CETP) having 2.5 MLD capacity for treatment of effluent generated from various SEZ industries, APSEZ common facilities and Mundra village.
- Details of Effluent inlet and treated water outlet quantity for the year 2023-24 are enclosed as **Annexure – 1**.

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 2016)

Hazardous Wastes	Total Quantity (Kg)	
	During the current financial year (2022-23)	During the current financial year (2023-24)
(a) From Process	35.01 MT (CETP Sludge)	26.78 MT (CETP Sludge)
(b) From Pollution Control facilities	Details is Attached as Annexure-3	

PART – E

Solid Waste

Solid Waste	Total Quantity Generated (MT/Annum)	
	During the current financial year (2022-23)	During the current financial year (2023-24)
(a) From Process (Ash)	NIL	NIL
(b) From Pollution Control facilities	Details is Attached as Annexure-3	
(C-1) Quantity recycled or reutilized within the unit		
(C-2) Sold		
(C-3) Disposed		

** Above mentioned solid waste details are of entire APSEZ area including CETP. The solid waste of CETP is also being managed in APSEZ waste management system. The solid waste (glass, paper, plastic, metal scrap and food waste) categorized in Recyclable Waste, Wet Waste and Refused Derived Fuel (RDF) and managed in common waste management facility of APSEZ.

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

- "Zero Waste company" initiative by APSEZ i.e. No waste is being sent to landfill or incineration facility @ Adani Ports & SEZ, rather being managed through 5 R principal of waste Management.
- APSEZ has eminent material recovery facility (MRF), having appropriate facility to proper segregate & recover the materials as per set process. Mixed Waste is being segregated via specialized mix waste segregation machine in two forms –Bio and Non bio without manual segregation, where risk to health hazards is minimized. Further waste is segregated in to 16 streams at MRF, which is sent to different end users following 5 R principal. To manage all operation of MRF, APSEZ developed local vendor though his past learnings and employed local women staff mainly to segregate waste.
- Wet Waste is being managed through Organic Waste Composting Facility and Biogas generation.
- Installed 02 no's biogas plant at Central Kitchen location. This plant is sufficient to manage the food Waste generated from APSEZ area. (700 Kg + 200 kg per day)
- Dry waste and e-waste collection drive is being organized every month within townships to collect municipal solid waste as well as e-waste from households.
- Plastic Free APSEZ Drive-which demonstrate commitment towards elimination of single use plastic
- Plastic free APSEZ Drive:
 - Replacement of conventional plastic garbage collection bag with biodegradable / compostable bags & also Rafia bags (more than 120 µm size) for other waste collection.
 - Conducted Training Awareness Programme with Adani Foundation for Student on "Single Use Plastic Ban" at Zapara & Navinal School dated 4th & 5th May 2023.
 - Celebrated "International Plastic Bag Free Day" on 3rd July 2023 by conducting the Training Awareness to students at Bhujpur Village, and with Cotton Bag distribution in our residential Colonies.
 - Plastic Waste Collection Drive was conducted on 20th March 2024 at our Old Railway Building, aimed at combating plastic pollution, and fostering environmental sustainability. The drive was continued for full working day and collected approx. 450 kgs of plastic waste from our old Railway Building area.
 - Awareness sessions organized among department and contract workers.
 - Made shop keepers and canteen owners to stop providing plastic carry bags to carry the material.
 - Regular supervision by Team Members at Port Canteens and Shops townships for verification of prohibition of plastic.
- APSEZ has awarded with Zero Waste to Landfill Management System (ZWTL MS 2020) from TÜV Rheinland India Pvt. Ltd.
- Sludge generated from STP is being utilized as manure for horticulture purpose.
- SEZ industries are managing their waste as per own standard procedure and following regulatory norms.

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Energy Savings (APSEZ)

- 217 nos. of Electrical truck Vehicle for internal movement of material (E-ITV's).
- 10 nos. of Electrical Car for movement of employees and all are working.
- Replacement of diesel loco by Electrified railway line of approx. 91 km from West port to Adipur Railway station.
- Installed 8.8 MW roof top solar generating plant at various locations and 22.4 MW (10.4 MW installed in 2023-24) wind generating plant in SEZ in Mundra.
- Installed 8.8 MW roof top solar generating plant at various locations in SEZ in Mundra which is generated nearly 9.06 million units in FY 2023-24 and utilized the renewable source of energy for captive use this reduced the emission of CO2 by nearly 7427 tCo2e.

• **Water Conservation:**

- Water reducers have been installed in Residence Area and various offices.
 - Waterless urinals have been placed in various offices.
 - Modifications of flush tank have been added in water system of toilet area in Port User Buildings.
 - Recollection of water provided for hydro testing through water.
 - Sensor based automatic On/Off pump & Automatic controlled water tap which eliminates the manual Intervention and reduce the water wastage.
 - Digitization of Commercial water flow meter and domestic water meters at residential (Samundra) township for real-time monitoring and tracking the water consumption.
 - 100% Utilization of treated water for horticulture use
- Following safeguard measures are taken for abatement of dust and noise emissions:
 - ✓ Regular sprinkling on road and other open area
 - ✓ Regular cleaning of roads
 - ✓ D.G. Set having acoustic enclosures
 - ✓ Adequate greenbelt and plantation area

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

PART - H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

- Treated water from ETP is used for gardening and horticulture activity within APSEZ premises to conserve the fresh water consumption.
- Unit has formed dedicated Horticulture department & developing green belt within port premises.
- Total mangrove conservation area is 2723 Ha and mangrove afforestation area is 4140 Ha. (250 ha during FY 2023-24).
- In entire APSEZ more than 457.99 ha. area is developed as greenbelt with samplings of more than 9.06 Lacs.
- Following safeguard measures are taken for abatement of dust and noise emissions:
 - ✓ Regular sprinkling on road and other open area
 - ✓ Regular cleaning of roads
 - ✓ Development of greenbelt along the periphery of the storage yards/back up area
 - ✓ D.G. Sets having acoustic enclosures

PART - I

Any other particulars for improving the quality of environment:

- Monitoring of environmental parameters such as Air, Noise, and wastewater quality being done regular basis through MoEF&CC & NABL recognized laboratory (M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi).
- APSEZ Budget for environmental management measures (including horticulture) for the FY 2023-24 is to the tune of INR **1536.48** lakh. Out of which, Approx. INR **1366.281** lakh is spent during the year FY 2023-24. Detailed breakup of the expenditures for the FY 2023-24 is attached as **Annexure - 4**.
- APSEZ is driving paperless office and plastic free drive to eliminate the use of papers and plastic materials to the extent possible within ports, SEZ and residential townships.

Date: 02-09-2024

(Signature of a person carrying out an industry, operation or process)

Designation: **Head-Environment Cell**

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

Annexure – 1

Water Consumption and Wastewater Details (April'23 to March'24)

Month	Wastewater details		Common Effluent Treatment Plant (CETP) Month wise Water consumption data in KL		
	Effluent & Sewage Water, KL	Treated Water, KL	Domestic, KL (Category-2)	Industrial, KL (Category-3)	Total, KL
Apr-23	26940	22545	31.8	127.2	159
May-23	27634	23930	34.8	139.2	174
Jun-23	21924	19893	65	260	325
Jul-23	36743	31819	29.8	119.2	149
Aug-23	36265	31856	33.6	134.4	168
Sep-23	29637	25768	32	128.	160
Oct-23	32347	27547	37	148	185
Nov-23	29349	25956	55	221	276
Dec-23	33414	28879	37	147	184
Jan-24	30582	26408	23	94	117
Feb-24	25517	22397	32	130	162
Mar-24	23742	20964	22	88	110
Total	354094	307962	433	1736	2169
Per Month	29507.83	25663.50	36.08	144.67	180.75
Per Day	967.47	841.43	1.18	4.74	5.93

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

(PCB ID: 10605)

ANNEXURE - 3 Waste Disposal Details, APSEZ, Mundra

Sr. No.	Waste Description	Disposal Method	Unit	Quantity 2022-23	Quantity 2023-24
Non-Hazardous:					
1.	Dry Waste (Recyclable waste- Metal, Wood, paper, plastic etc.)	Recycle (send to reg. recycler)/ Reuse (Used by Org.)	MT	3779.70	3312.78
2.	RDF (Non-Recyclable)	Co-processing at cement plant	MT	544.17	451.28
3.	Organic Waste (included food waste)	Reprocess & Recovery Manure/biogas	MT	897.82	959.35
4.	E-Waste	Recycle (send to reg. recycler)	MT	89.86	44.83
Hazardous:					
1.	CETP-sludge	Landfilling	MT	35.010	26.78

Environment Statement for 2023-24 for M/s MPSEZ Utilities Ltd.

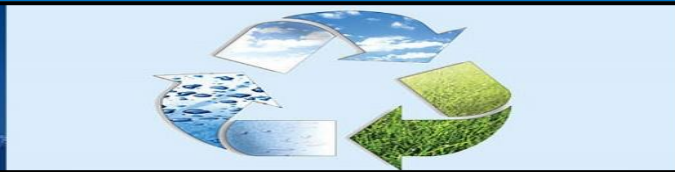
(PCB ID: 10605)

ANNEXURE - 4

Cost of Environmental Protection Measures

Cost of Environmental Protection Measures of APSEZ, Mundra
F.Y. 2023 - 24

Sr. No.	Activity	Cost incurred (INR in Lacs)	Budgeted Cost (INR in Lacs)
		2023 - 24	2023 - 24
1.	Environmental Study / Audit and Consultancy	22.67	27
2.	Legal & Statutory Expenses	8.60	13
3.	Environmental Monitoring Services	13.37	19.20
4.	Hazardous / Non-Hazardous Waste Management & Disposal	130.11	148.68
5.	Environment Days Celebration and Advertisement / Business development	3.42	11.50
6.	Treatment and Disposal of Bio-Medical Waste	2.28	2.28
7.	Mangrove Plantation, Monitoring & Conservation	15	15.0
8.	Other Horticulture Expenses	904	904
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	186.94	212.9
10.	Expenditure of Environment Dept. (Apart from above head)	80.39	182.92
Total		1366.281	1536.48



“Half Yearly Environmental Monitoring Reports “

For,
adani
Ports and
Logistics

M/S. MPSEZ Utilities Ltd. (MUL)

Survey No. 141, Village - Mundra, APSEZ, Tal: Mundra, Dist.: Kutch – 370 421

Monitoring Period: October – 2023 to March - 2024

Submitted By

UniStar
Environment and Research Labs Pvt. Ltd.

UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF CETP INLET WATER

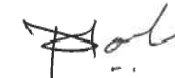
SR.NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24		
			10-10-2023	22-11-2023	26-12-2023	23-01-2024	02-02-2024	04-03-2024		
1.	pH @ 27 ° C	--	7.95	7.48	7.44	7.83	7.74	7.52	6.5 to 8.5	APHA 23 rd Ed.,2017,4500-H ⁺ B
2.	Temperature	°C	30.5	30	29.5	29	29.5	30	--	IS 3025(Part 9)1984
3.	Colour	Pt. Co. Scale	70	80	70	70	80	70	100	IS 3025(Part 4)
4.	Total Suspended Solids	mg/L	50	44	46	48	44	42	800	APHA 23 rd Ed.,2017,2540 –D
5.	Oil & Grease	mg/L	6.5	6	5.8	5.5	5.2	5.3	20	IS 3025(Part 39)1991, Amd. 2
6.	Phenolic Compounds	mg/L	0.74	0.77	0.68	0.67	0.71	0.84	2	IS 3025(Part 43)1992, Amd.2
7.	Fluoride	mg/L	0.94	0.88	0.86	0.92	0.94	1.06	2	APHA 23 rd Ed.,2017,4500 F, D
8.	Iron as Fe	mg/L	0.274	0.281	0.288	0.292	0.284	0.242	3	IS 3025(Part 53)2003,
9.	Zinc as Zn	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	0.131	BDL(MDL:0.05)	0.122	0.111	15	IS 3025(Part 49)1994
10.	Trivalent Chromium	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	By Calculation
11.	Sulphide	mg/L	BDL(MDL:0.05)	1.12	1.2	BDL(MDL:0.05)	1.25	1.16	2	APHA 23 rd Ed.,2017,4500-H ⁺ B

Continue...

SR.NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24		
			10-10-2023	22-11-2023	26-12-2023	23-01-2024	02-02-2024	04-03-2024		
12.	Ammonical Nitrogen	mg/L	32.2	27.1	26.9	33.5	30.1	30.2	50	IS 3025(Part 9)1984
13.	BOD (3 days at 27 °C)	mg/L	78	79	80	81	79	82	1000	IS 3025(Part 4)
14.	COD	mg/L	280	283.4	288	292	284.4	290	2000	APHA 23 rd Ed.,2017,2540 –D
15.	Chloride (as Cl ⁻)	mg/L	718.8	824.4	744.2	838.9	810.5	842.2	1000	IS 3025(Part39)1991, Amd. 2
16.	Sulphate (as SO ₄)	mg/L	67.1	70.4	71.2	66	66.6	62	1000	IS 3025(Part 43)1992, Amd.2
17.	Total Dissolved Solids	mg/L	1580	1780	1790	1580	1620	1620	2100	APHA 23 rd Ed.,2017,4500 F, D
18.	Total Residual Chlorine	mg/L	0.74	0.89	0.91	0.92	0.81	0.78	2	IS 3025(Part 53)2003,
19.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	IS 3025(Part 49)1994



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF CETP OUTLET WATER

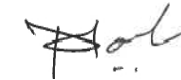
SR.NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP Outlet	TEST METHOD
			Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24		
			10-10-2023	22-11-2023	26-12-2023	23-01-2024	02-02-2024	04-03-2024		
1.	pH @ 27 °C	--	7.89	7.44	7.52	7.8	7.52	7.46	6.0 – 9.0	APHA 23 rd Ed.,2017,4500-H+B
2.	Temperature	°C	30.5	30	29.5	29	29.5	30	Shall not exceed more than 5 °C above received water temperature	IS 3025(Part 9)1984
3.	Colour	Pt. Co. Scale	50	50	50	50	45	50	100	IS 3025(Part 4)
4.	Total SuspeNOT DETECTED Solids	mg/L	16	14	14	16	16	14	100	APHA 23 rd Ed.,2017,2540 –D
5.	Oil & Grease	mg/L	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	10	IS 3025 (Part39)1991, Amd. 2
6.	Phenolic CompouNOT DETECTED	mg/L	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	1	IS 3025(Part 43)1992, Amd.2
7.	Fluoride	mg/L	0.88	0.78	0.82	0.89	0.79	0.88	2	APHA 23 rd Ed.,2017,4500F, D
8.	Iron as Fe	mg/L	0.155	0.16	0.174	0.154	0.16	0.154	3	IS 3025(Part 53)2003,
9.	Zinc as Zn	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	15	IS 3025(Part 49)1994
10.	Trivalent Chromium	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	By Calculation

Continue...

SR.NO.	TEST PARAMETERS	UNI T	CETP OUTLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24		
			10-10-2023	22-11-2023	26-12-2023	23-01-2024	02-02-2024	04-03-2024		
11.	Sulphide	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	APHA 23 rd Ed.,2017,4500-H+B
12.	Ammonical Nitrogen	mg/L	17.2	18.4	18.5	19.2	17.6	19.2	50	IS 3025(Part 9)1984
13.	BOD (3 days at 27 °C)	mg/L	32	34	37	33	32	34	100	IS 3025(Part 4)
14.	COD	mg/L	110	116	134.2	108.6	110.4	118.2	250	APHA 23 rd Ed.,2017,2540 –D
15.	Chloride (as Cl) ⁻	mg/L	709.6	785.9	774.2	766.5	710.4	730.4	1000	IS 3025(Part39)1991, Amd. 2
16.	Sulphate (as SO ₄)	mg/L	66	66.8	67.2	68	62.4	59.4	1000	IS 3025(Part 43)1992, Amd.2
17.	Total Dissolved Solids	mg/L	1560	1598	1600	1574	1654	1612	2100	APHA 23 rd Ed.,2017,4500F, D
18.	Total Residual Chlorine	mg/L	0.72	0.84	0.78	0.84	0.88	0.72	1	IS 3025(Part 53)2003,
19.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	IS 3025(Part 49)1994
20.	Bio Assay test (%)	%	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	IS:6582-1971



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		WTP- Nr. CETP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	
1.	02-10-2023	80.18	34.63	18.42	23.15	NOT DETECTED	6.84	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	
2.	05-10-2023	84.64	36.47	19.38	25.31	--	--	--	--	--	--	--	--	
3.	09-10-2023	73.47	39.81	20.64	26.50	--	--	--	--	--	--	--	--	
4.	12-10-2023	78.85	40.15	20.76	26.10	--	--	--	--	--	--	--	--	
5.	16-10-2023	82.96	38.27	21.27	26.42	--	--	--	--	--	--	--	--	
6.	19-10-2023	84.29	35.82	17.49	22.32	--	--	--	--	--	--	--	--	
7.	23-10-2023	71.15	38.94	20.38	25.84	--	--	--	--	--	--	--	--	
8.	26-10-2023	70.12	37.31	18.42	22.94	--	--	--	--	--	--	--	--	
9.	30-10-2023	74.27	34.64	17.58	22.56	--	--	--	--	--	--	--	--	
10.	02-11-2023	75.36	37.65	19.84	24.15	--	--	--	--	--	--	--	--	
11.	06-11-2023	72.59	34.12	17.86	22.36	--	--	--	--	--	--	--	--	
12.	09-11-2023	74.85	35.63	18.95	23.71	--	--	--	--	--	--	--	--	
13.	13-11-2023	76.44	37.84	19.67	25.13	--	--	--	--	--	--	--	--	
14.	16-11-2023	79.30	38.63	18.57	22.98	--	--	--	--	--	--	--	--	
15.	20-11-2023	82.63	39.27	19.48	24.58	--	--	--	--	--	--	--	--	

Continue...

Name of Location		WTP- Nr. CETP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	
16.	23-11-2023	80.47	37.88	17.91	21.86	--	--	--	--	--	--	--	--	
17.	27-11-2023	69.36	33.14	18.98	23.61	--	--	--	--	--	--	--	--	
18.	30-11-2023	72.14	35.35	17.58	22.12	--	--	--	--	--	--	--	--	
19.	04-12-2023	71.52	34.26	16.72	21.31	--	--	--	--	--	--	--	--	
20.	07-12-2023	73.64	36.12	17.97	22.41	--	--	--	--	--	--	--	--	
21.	11-12-2023	70.59	31.96	15.78	20.63	--	--	--	--	--	--	--	--	
22.	14-12-2023	72.86	33.48	16.12	21.79	--	--	--	--	--	--	--	--	
23.	18-12-2023	75.13	35.60	17.46	23.42	--	--	--	--	--	--	--	--	
24.	21-12-2023	74.36	35.11	16.74	20.86	--	--	--	--	--	--	--	--	
25.	25-12-2023	77.62	36.43	17.13	22.91	--	--	--	--	--	--	--	--	
26.	28-12-2023	79.15	37.32	17.86	24.15	--	--	--	--	--	--	--	--	
27.	01-01-2024	75.38	33.67	16.11	22.36	NOT DETECTED	9.13	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	
28.	04-01-2024	79.51	35.25	17.92	24.10	--	--	--	--	--	--	--	--	
29.	08-01-2024	77.46	34.18	16.37	21.87	--	--	--	--	--	--	--	--	
30.	11-01-2024	81.38	37.49	18.22	23.59	--	--	--	--	--	--	--	--	
31.	15-01-2024	83.62	39.21	19.00	25.03	--	--	--	--	--	--	--	--	

Continue...

Name of Location		WTP- Nr. CETP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
32.	18-01-2024	77.62	36.15	17.24	22.91	--	--	--	--	--	--	--	--
33.	22-01-2024	79.62	37.53	18.86	24.21	--	--	--	--	--	--	--	--
34.	25-01-2024	75.41	35.03	16.47	22.54	--	--	--	--	--	--	--	--
35.	29-01-2024	78.55	37.14	18.52	23.98	--	--	--	--	--	--	--	--
36.	01-02-2024	80.51	36.79	17.43	21.87	--	--	--	--	--	--	--	--
37.	05-02-2024	83.11	36.88	18.04	22.95	--	--	--	--	--	--	--	--
38.	08-02-2024	78.59	34.62	16.97	21.24	--	--	--	--	--	--	--	--
39.	12-02-2024	75.67	32.31	15.46	19.73	--	--	--	--	--	--	--	--
40.	15-02-2024	80.31	35.76	17.39	22.14	--	--	--	--	--	--	--	--
41.	19-02-2024	77.84	33.92	16.12	21.19	--	--	--	--	--	--	--	--
42.	22-02-2024	72.35	32.47	15.62	19.88	--	--	--	--	--	--	--	--
43.	26-02-2024	69.92	31.05	14.99	19.27	--	--	--	--	--	--	--	--
44.	29-02-2024	75.71	33.89	15.92	20.85	--	--	--	--	--	--	--	--
45.	04-03-2024	77.47	35.12	16.38	20.84	--	--	--	--	--	--	--	--
46.	07-03-2024	80.73	36.21	17.53	22.15	--	--	--	--	--	--	--	--
47.	11-03-2024	71.16	32.53	14.93	18.65	--	--	--	--	--	--	--	--

Continue...

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (31.03.2023 to 22.09.2024)

QCI-NABET Accredited EIA & GW Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001 : 2015 Certified Company

ISO 45001 : 2018 Certified Company

Name of Location		WTP- Nr. CETP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
48.	14-03-2024	78.43	35.82	16.27	20.48	--	--	--	--	--	--	--	--
49.	18-03-2024	75.28	33.62	16.88	19.43	--	--	--	--	--	--	--	--
50.	21-03-2024	69.82	30.58	15.47	18.91	--	--	--	--	--	--	--	--
51.	25-03-2024	72.92	33.65	14.78	19.63	--	--	--	--	--	--	--	--
52.	28-03-2024	75.87	31.64	16.25	21.42	--	--	--	--	--	--	--	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR/SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
1.	02-10-2023	70.63	26.81	18.52	24.36	0.10	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	--
2.	05-10-2023	75.28	28.64	17.93	22.57	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
3.	09-10-2023	78.42	27.39	18.46	24.72	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
4.	12-10-2023	80.51	31.26	19.32	26.23	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
5.	16-10-2023	72.79	29.74	18.11	23.58	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
6.	19-10-2023	76.31	30.85	20.13	25.61	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
7.	23-10-2023	70.83	31.69	20.36	24.91	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
8.	26-10-2023	78.42	28.71	17.83	22.67	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
9.	30-10-2023	75.15	26.47	18.65	23.61	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
10.	02-11-2023	72.56	27.43	17.89	23.41	0.11	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
11.	06-11-2023	70.16	25.96	16.29	22.15	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
12.	09-11-2023	75.48	28.85	18.92	24.35	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
13.	13-11-2023	79.36	30.27	18.97	25.76	0.11	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
14.	16-11-2023	77.15	29.61	18.37	24.88	0.11	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
15.	20-11-2023	75.12	27.43	17.02	23.55	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
16.	23-11-2023	72.16	25.89	16.30	21.79	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
17.	27-11-2023	75.62	27.46	17.51	24.36	0.11	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
18.	30-11-2023	71.23	25.19	16.76	22.42	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
19.	04-12-2023	77.16	29.51	19.15	24.62	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
20.	07-12-2023	75.6	28.13	18.62	23.48	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
21.	11-12-2023	76.43	29.84	19.1	23.14	0.11	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
22.	14-12-2023	74.36	28.42	18.25	22.89	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
23.	18-12-2023	71.52	25.48	17.43	22.36	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
24.	21-12-2023	73.64	26.85	17.59	23.06	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
25.	25-12-2023	77.31	28.47	19.36	25.87	0.11	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
26.	28-12-2023	74.89	26.48	18.35	24.71	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
27.	01-01-2024	73.68	26.78	17.61	23.83	ND	<5.0	11.21	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	--
28.	04-01-2024	81.26	28.58	20.46	25.62	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
29.	08-01-2024	78.54	27.46	18.42	23.52	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
30.	11-01-2024	80.56	31.57	20.51	26.18	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
31.	15-01-2024	74.19	29.89	17.52	23.72	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
32.	18-01-2024	76.44	31.02	18.91	24.13	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
33.	22-01-2024	73.69	31.55	17.86	23.73	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
34.	25-01-2024	80.17	28.84	20.16	25.31	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
35.	29-01-2024	75.12	26.44	17.26	23.43	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
36.	01-02-2024	77.31	28.25	18.36	22.47	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
37.	05-02-2024	80.69	29.45	19.74	24.12	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
38.	08-02-2024	78.18	28.89	18.64	23.08	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
39.	12-02-2024	74.42	26.14	17.92	22.16	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
40.	15-02-2024	70.32	24.13	16.55	21.43	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
41.	19-02-2024	75.17	26.46	18.03	22.73	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
42.	22-02-2024	72.29	24.7	16.81	20.78	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
43.	26-02-2024	78.77	27.42	18.13	23.61	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
44.	29-02-2024	73.12	25.82	17.53	22.19	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
45.	04-03-2024	75.83	26.37	16.82	21.25	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
46.	07-03-2024	72.83	24.85	16.10	20.53	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
47.	11-03-2024	76.92	26.65	17.31	22.68	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
48.	14-03-2024	81.54	28.37	15.86	20.41	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
49.	18-03-2024	78.54	26.71	16.43	22.56	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
50.	21-03-2024	80.73	28.94	17.25	21.86	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
51.	25-03-2024	75.49	27.24	15.91	20.17	0.10	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
52.	28-03-2024	79.74	29.61	16.38	22.63	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1	---
Test Method		IS - 5182, Part- 23	UERL/AIR /SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR /SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12	Gas analyzer



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		WTP- Nr. CETP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		07-10-2023	04-11-2023	09-12-2023	13-01-2024	10-02-2024	09-03-2024
1	06:00 to 07:00	59.4	63.6	60.9	61.5	63	63.4
2	07:00 to 08:00	60.4	66.8	62.3	63.7	62.3	61.9
3	08:00 to 09:00	67.1	58.9	65.8	64.3	63.9	63.9
4	09:00 to 10:00	65.8	62.4	64.3	63.8	65.2	64.7
5	10:00 to 11:00	68.6	67.8	65.7	64.9	63.6	63.6
6	11:00 to 12:00	65.2	69.5	68.3	67.4	66.8	65.8
7	12:00 to 13:00	67.1	68.1	66.3	65.9	66.2	66.2
8	13:00 to 14:00	65.3	65.5	68.9	67.3	64.5	63.8
9	14:00 to 15:00	68.3	62.3	64.5	64.2	67.3	65.8
10	15:00 to 16:00	67.3	66.9	67.8	66.8	65.1	66.8
11	16:00 to 17:00	65.1	67.4	64.2	64.2	66.3	66.3
12	17:00 to 18:00	64.3	60.5	61.3	61.3	64.1	65.1
13	18:00 to 19:00	65.8	61.8	64.5	64.5	65.3	63.7
14	19:00 to 20:00	60.4	60.2	62.8	63	62.1	64.8
15	20:00 to 21:00	63.7	59.3	58.7	58.7	57.9	57.5
16	21:00 to 22:00	61.3	57.7	58.1	59.6	60.2	59.8
Day Time		<75 dB (A)					

Continue...

Location Name		WTP- Nr. CETP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		07-10-2023	04-11-2023	09-12-2023	13-01-2024	10-02-2024	09-03-2024
1	22:00 to 23:00	60.5	58.6	59.6	59.2	57.7	58.2
2	23:00 to 24:00	58.6	60.2	63.5	62.3	60.3	59.5
3	24:00 to 01:00	56.2	57.6	62.8	64.7	63.5	61.4
4	01:00 to 02:00	60.7	58.2	63.4	61.2	60.8	63.5
5	02:00 to 03:00	58.4	55.5	61.8	61.8	62.7	63.8
6	03:00 to 04:00	60.3	57.8	59.6	60.6	59.6	62.3
7	04:00 to 05:00	56.4	61.2	60.7	61.2	58.9	60.7
8	05:00 to 06:00	57.1	58.9	59.1	60.3	58.7	59.1
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		AIR STRIP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		28-10-2023	25-11-2023	23-12-2023	27-01-2024	21-02-2024	23-03-2024
1	06:00 to 07:00	61.3	62.7	61.3	61.5	63.1	61.7
2	07:00 to 08:00	63.7	68.5	66.7	65.7	66.3	63.8
3	08:00 to 09:00	65.8	65.5	64.2	64.2	62.5	62.5
4	09:00 to 10:00	61.4	63.3	66.9	66.9	65.8	65.4
5	10:00 to 11:00	63.7	66.8	64.8	64.8	63.2	64.1
6	11:00 to 12:00	65.1	62.8	67.4	64.6	65.6	65.3
7	12:00 to 13:00	67.4	68.2	63.5	66.8	67.1	66.5
8	13:00 to 14:00	68.0	65.6	65.6	65.6	64.3	65.7
9	14:00 to 15:00	63.7	64.2	64.2	65.1	66.9	66.8
10	15:00 to 16:00	62.7	67.8	68.1	68.3	67.3	67.1
11	16:00 to 17:00	65.1	63.6	66.3	66.3	64.2	64.2
12	17:00 to 18:00	63.2	67.2	63.1	63.1	64.5	65.3
13	18:00 to 19:00	61.3	68.7	61.9	61.5	63.7	62.8
14	19:00 to 20:00	58.9	66.7	64.8	63.7	64.6	64.6
15	20:00 to 21:00	60.4	63.5	62.7	63.6	64.8	62.4
16	21:00 to 22:00	61.2	60.9	61.2	61.5	60.2	61.7
Day Time		<75 dB (A)					

Continue...

Location Name		AIR STRIP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		28-10-2023	25-11-2023	23-12-2023	27-01-2024	21-02-2024	23-03-2024
1	22:00 to 23:00	57.1	60.3	62.3	62.3	60.2	62.1
2	23:00 to 24:00	54.8	58.7	64.3	64.8	62.4	61.8
3	24:00 to 01:00	58.7	63.5	62.8	64.5	63.5	63.8
4	01:00 to 02:00	56.2	60.7	61.7	63.6	63.8	63.1
5	02:00 to 03:00	59.3	58.6	60.4	62.1	61.4	61.4
6	03:00 to 04:00	61.3	61.3	58.9	59.7	60.3	62.7
7	04:00 to 05:00	58.3	59.6	60.1	61.3	59.2	59.2
8	05:00 to 06:00	60.2	61.8	58.5	58.9	57.5	58.2
Day Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	Mar-2024	GPCB LIMIT	Method of Test
			D.G.Set No. S-1 (380 KVA)		
			08-03-2024		
1	Particulate Matter	mg/Nm ³	21.85	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO ₂	ppm	7.80	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO _x	ppm	30.42	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm ³	1.8	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



Nikunj D. Patel
(Chemist)





Jaivik S. Tandel
(Manager - Operations)

RESULTS OF BOREHOLE WATER SAMPLE

Sr. No	Parameters	Method	Unit	12-02-2024
				Nr. CETP
1	pH @ 25 ° C	IS 3025(Part 11)1983	--	8.18
2	Salinity	APHA 23rd Ed.,2017,2520 B	ppt	1.77
3	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:5.0)
4	Hydrocarbon	GC/GCMS	mg/L	Not Detected
5	Lead as Pb	IS 3025 (PART 47) 1994	mg/L	BDL(MDL:0.01)
6	Arsenic as As	APHA 23rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
7	Nickel as Ni	IS 3025 (PART 54) 2003	mg/L	BDL(MDL:0.02)
8	Total Chromium as Cr	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
9	Cadmium as Cd	IS 3025(PART 41) 1992	mg/L	0.036
10	Mercury as Hg	APHA 23rd Ed.,2017, 3112-B	mg/L	BDL(MDL:0.001)
11	Zinc as Zn	IS 3025(PART 49) 1994	mg/L	BDL(MDL:0.05)
12	Copper as Cu	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
13	Iron as Fe	IS 3025(PART 53) 2003	mg/L	0.322
14	Insecticides/Pesticides	USEPA 8081 B	µg/L	Absent
15	Depth of Water Level from Ground Level	--	meter	2.1



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF SOIL SAMPLE

SR. NO.	TEST PARAMETERS	UNIT	12-02-2024
			Near CETP
1	pH	--	9.08
2	Nitrogen as N	%	0.46
3	Phosphorus as P	mg/kg	5114.2
4	Potassium as K	mg/kg	152.3
5	Baron as B	mg/kg	3.05
6	Calcium as Ca	mg/kg	412.3
7	Magnesium as Mg	mg/kg	66.4
8	Iron as Fe	%	1.02
9	Moisture	%	1.84
10	Organic Matter	%	1.56
11	Cation exchange capacity (CEC)	meq/100gm	10.11
12	TVC	CFU/gm	2.2 x 10 ⁶
13	Cadmium as Cd	mg/kg	BDL(MDL:1.0)
14	Thorium as Th	mg/kg	BDL(MDL:1.0)
15	Antimony as Sb	mg/kg	BDL(MDL:1.0)
16	Arsenic as As	mg/kg	BDL(MDL:1.0)

Continue...

MoEF&CC (GOI) Recognized Environmental
Laboratory under the EPA-1986 (31.03.2023 to 22.09.2024)

QCI-NABET Accredited EIA & GW
Consultant Organization

GPCB Recognized Environmental
Auditor (Schedule-II)

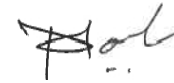
ISO 9001 : 2015
Certified Company

ISO 45001 : 2018
Certified Company

17	Lead as Pb	mg/kg	7.38
18	Chromium as Cr	mg/kg	4.34
19	Cobalt as Co	mg/kg	9.94
20	Copper as Cu	mg/kg	16.2
21	Nickel as Ni	mg/kg	13.92
22	Manganese and Mn	mg/kg	182.24
23	Vanadium as V	mg/kg	8.33



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Minimum Detection Limit

Ambient Air Quality Monitoring

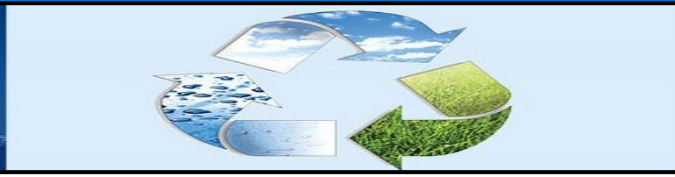
Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
2	Particulate Matter (PM2.5)	µg/m ³	5 µg/m ³
3	Sulphur Dioxide (SO ₂)	µg/m ³	4 µg/m ³
4	Nitrogen Dioxide (NO ₂)	µg/m ³	5 µg/m ³
5	Carbon Monoxide (CO)	mg/m ³	0.01 mg/m ³
6	Ammonia (NH ₃)	µg/m ³	5 µg/m ³
7	Ozone (O ₃)	µg/m ³	5 µg/m ³
8	Lead (Pb)	µg/m ³	0.5 µg/m ³
9	Nickle (Ni)	ng/m ³	1 ng/m ³
10	Arsenic (As)	ng/m ³	1 ng/m ³
11	Benzene	µg/m ³	1µg/m ³
12	Benzo(o)Pyrene	ng/m ³	0.1 ng/m ³
13	Hydro Carbon	µg/m ³	1 µg/m ³

Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	SuspeNOT DETECTEDed particulate matter	mg/Nm ³	2 mg/Nm ³
2	Sulphur Dioxide SOX	mg/Nm ³	4 mg/Nm ³
3	Oxides of Nitrogen NOX	mg/Nm ³	5 mg/Nm ³

CETP water

Sr. No.	Test Parameter	Unit	MDL
1	pH @ 27 ° C	--	2
2	Temperature	OC	5
3	Colour	Pt. Co. Scale	5
4	Total SuspeNOT DETECTEDed Solids	mg/L	4
5	Oil & Grease	mg/L	2
6	Phenolic CompouNOT DETECTED	mg/L	0.1
7	Fluoride	mg/L	0.2
8	Iron as Fe	mg/L	0.1
9	Zinc as Zn	mg/L	0.05
10	Trivalent Chromium	mg/L	0.05
11	Sulphide	mg/L	0.05
12	Ammonical Nitrogen	mg/L	2
13	BOD (3 days at 27 OC)	mg/L	1
14	COD	mg/L	2
15	Chloride (as Cl) ⁻	mg/L	1
16	Sulphate (as SO ₄)	mg/L	1
17	Total Dissolved Solids	mg/L	4
18	Total Residual Chlorine	mg/L	0.1
19	Copper as Cu	mg/L	0.05
20	Bio Assay test (%)	%	--



“Half Yearly Environmental Monitoring Reports “

For,
adani
Ports and
Logistics

M/S. MPSEZ Utilities Ltd. (MUL)

Survey No. 141, Village - Mundra, APSEZ, Tal: Mundra, Dist.: Kutch – 370 421

Monitoring Period: April - 2023 to September - 2023

Submitted By

UniStar
Environment and Research Labs Pvt. Ltd.

UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF CETP INLET WATER

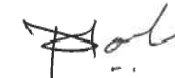
SR.NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23		
			26-04-2023	29-05-2023	29-06-2023	13-07-2023	08-08-2023	13-09-2023		
1.	pH @ 27 ° C	--	7.41	7.39	7.44	7.87	7.78	7.24	6.5 to 8.5	APHA 23 rd Ed.,2017,4500-H ⁺ B
2.	Temperature	°C	30.5	31	30.5	30.1	30	30.2	--	IS 3025(Part 9)1984
3.	Colour	Pt. Co. Scale	80	80	70	50	80	70	100	IS 3025(Part 4)
4.	Total Suspended Solids	mg/L	40	64	82	16	42	26	800	APHA 23 rd Ed.,2017,2540 –D
5.	Oil & Grease	mg/L	6	8	9	BDL(MDL:2.0)	3	4	20	IS 3025(Part39)1991, Amd. 2
6.	Phenolic Compound	mg/L	0.54	1.09	1.12	BDL(MDL:0.1)	0.34	0.86	2	IS 3025(Part 43)1992, Amd.2
7.	Fluoride	mg/L	1.35	1.16	1.06	0.8	0.86	0.69	2	APHA 23 rd Ed.,2017,4500 F, D
8.	Iron as Fe	mg/L	0.138	0.204	0.186	0.29	0.346	0.312	3	IS 3025(Part 53)2003,
9.	Zinc as Zn	mg/L	0.104	0.128	0.142	BDL(MDL:0.05)	0.124	0.105	15	IS 3025(Part 49)1994
10.	Trivalent Chromium	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	By Calculation
11.	Sulphide	mg/L	1.2	1.04	1.16	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	APHA 23 rd Ed.,2017,4500-H ⁺ B

Continue...

SR.NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23		
			26-04-2023	29-05-2023	29-06-2023	13-07-2023	08-08-2023	13-09-2023		
12.	Ammonical Nitrogen	mg/L	31.5	39.6	42.4	21.2	28.4	22.8	50	IS 3025(Part 9)1984
13.	BOD (3 days at 27 °C)	mg/L	40	97	82	50	67	75	1000	IS 3025(Part 4)
14.	COD	mg/L	144.4	347.7	290.8	180.5	238.6	270.4	2000	APHA 23 rd Ed.,2017,2540 –D
15.	Chloride (as Cl ⁻)	mg/L	707.2	814.8	840.2	724.3	781.9	798.1	1000	IS 3025(Part39)1991, Amd. 2
16.	Sulphate (as SO ₄)	mg/L	50.3	48	44	75.3	80.2	84.4	1000	IS 3025(Part 43)1992, Amd.2
17.	Total Dissolved Solids	mg/L	1640	1634	1620	1476	1510	1524	2100	APHA 23 rd Ed.,2017,4500 F, D
18.	Total Residual Chlorine	mg/L	0.55	0.64	0.78	0.94	0.96	0.94	2	IS 3025(Part 53)2003,
19.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	IS 3025(Part 49)1994



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF CETP OUTLET WATER

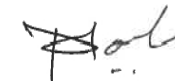
SR.NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP Outlet	TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23		
			26-04-2023	29-05-2023	29-06-2023	13-07-2023	08-08-2023	13-09-2023		
1.	pH @ 27 °C	--	7.4	7.62	7.51	7.92	7.86	7.21	6.0 – 9.0	APHA 23 rd Ed.,2017,4500-H+B
2.	Temperature	°C	30.5	31	30.5	30.1	30	30.2	Shall not exceed more than 5 °C above received water temperature	IS 3025(Part 9)1984
3.	Colour	Pt. Co. Scale	50	50	40	40	50	50	100	IS 3025(Part 4)
4.	Total SuspeNOT DETECTED Solids	mg/L	14	22	18	BDL(MDL:4.0)	12	8	100	APHA 23 rd Ed.,2017,2540 –D
5.	Oil & Grease	mg/L	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	10	IS 3025 (Part39)1991, Amd. 2
6.	Phenolic CompouNOT DETECTED	mg/L	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	1	IS 3025(Part 43)1992, Amd.2
7.	Fluoride	mg/L	1.34	1.24	1.36	0.3	0.42	0.38	2	APHA 23 rd Ed.,2017,4500F, D
8.	Iron as Fe	mg/L	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	0.178	0.202	0.184	3	IS 3025(Part 53)2003,
9.	Zinc as Zn	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	15	IS 3025(Part 49)1994
10.	Trivalent Chromium	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	By Calculation

Continue...

SR.NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23		
			26-04-2023	29-05-2023	29-06-2023	13-07-2023	08-08-2023	13-09-2023		
11.	Sulphide	mg/L	0.4	0.72	0.77	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	APHA 23 rd Ed.,2017,4500-H*B
12.	Ammonical Nitrogen	mg/L	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:2.0)	21.5	50	IS 3025(Part 9)1984
13.	BOD (3 days at 27 °C)	mg/L	29	40	35	30	40	42	100	IS 3025(Part 4)
14.	COD	mg/L	104.2	143.9	124.8	106.1	133.5	150.4	250	APHA 23 rd Ed.,2017,2540 –D
15.	Chloride (as Cl) ⁻	mg/L	655.4	853.4	864.5	512.5	602.2	684	1000	IS 3025(Part39)1991, Amd. 2
16.	Sulphate (as SO ₄)	mg/L	41.9	44	38.2	70.4	74.6	80	1000	IS 3025(Part 43)1992, Amd.2
17.	Total Dissolved Solids	mg/L	1564	1590	1588	1112	1186	1222	2100	APHA 23 rd Ed.,2017,4500F, D
18.	Total Residual Chlorine	mg/L	0.52	0.88	0.84	0.91	0.94	0.82	1	IS 3025(Part 53)2003,
19.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	IS 3025(Part 49)1994
20.	Bio Assay test (%)	%	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	IS:6582-1971



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		WTP- Nr. CETP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
1.	03-04-2023	82.89	37.62	20.13	28.84	NOT DETECTED	13.24	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
2.	06-04-2023	89.64	44.19	27.64	36.26	--	--	--	--	--	--	--	--
3.	10-04-2023	79.13	38.86	22.61	29.1	--	--	--	--	--	--	--	--
4.	13-04-2023	81.68	32.79	18.36	14.53	--	--	--	--	--	--	--	--
5.	17-04-2023	85.54	37.81	24.93	31.58	--	--	--	--	--	--	--	--
6.	20-04-2023	81.38	39.23	22.47	27.84	--	--	--	--	--	--	--	--
7.	24-04-2023	89.73	34.57	21.99	26.37	--	--	--	--	--	--	--	--
8.	27-04-2023	83.56	36.03	25.83	32.44	--	--	--	--	--	--	--	--
9.	01-05-2023	83.93	39.62	24.19	29.61	--	--	--	--	--	--	--	--
10.	04-05-2023	88.59	44.38	30.26	36.73	--	--	--	--	--	--	--	--
11.	08-05-2023	76.61	46.15	34.83	39.68	--	--	--	--	--	--	--	--
12.	11-05-2023	84.55	41.78	29.45	34.28	--	--	--	--	--	--	--	--
13.	15-05-2023	87.15	37.28	24.03	29.77	--	--	--	--	--	--	--	--
14.	18-05-2023	79.36	39.51	27.47	32.58	--	--	--	--	--	--	--	--
15.	22-05-2023	85.25	36.73	23.58	27.65	--	--	--	--	--	--	--	--

Continue...

Name of Location		WTP- Nr. CETP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
16.	25-05-2023	78.16	34.42	21.29	26.35	--	--	--	--	--	--	--	--
17.	29-05-2023	82.45	38.89	26.43	31.59	--	--	--	--	--	--	--	--
18.	01-06-2023	85.18	36.24	28.51	33.28	--	--	--	--	--	--	--	--
19.	05-06-2023	88.36	31.78	25.84	29.63	--	--	--	--	--	--	--	--
20.	08-06-2023	74.39	33.46	29.37	31.89	--	--	--	--	--	--	--	--
21.	12-06-2023	85.48	29.75	26.2	30.71	--	--	--	--	--	--	--	--
22.	15-06-2023	70.25	22.64	18.25	22.23	--	--	--	--	--	--	--	--
23.	19-06-2023	57.23	20.44	12.5	15.23	--	--	--	--	--	--	--	--
24.	22-06-2023	51.23	18.25	6.25	10.36	--	--	--	--	--	--	--	--
25.	26-06-2023	50.24	16.52	7.15	11.54	--	--	--	--	--	--	--	--
26.	29-06-2023	48.25	15.2	7.54	10.26	--	--	--	--	--	--	--	--
27.	03-07-2023	45.85	16.37	11.4	14.63	NOT DETECTED	6.13	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED
28.	06-07-2023	52.56	18.73	14.59	18.42	--	--	--	--	--	--	--	--
29.	10-07-2023	43.29	15.88	12.47	16.73	--	--	--	--	--	--	--	--
30.	13-07-2023	47.89	16.42	15.99	18.41	--	--	--	--	--	--	--	--
31.	17-07-2023	54.10	19.62	17.11	20.58	--	--	--	--	--	--	--	--

Continue...

Name of Location		WTP- Nr. CETP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
32.	20-07-2023	51.58	18.07	15.78	17.35	--	--	--	--	--	--	--	--
33.	24-07-2023	59.74	20.48	17.34	21.42	--	--	--	--	--	--	--	--
34.	27-07-2023	62.53	23.16	20.48	23.85	--	--	--	--	--	--	--	--
35.	31-07-2023	58.69	21.74	16.13	20.88	--	--	--	--	--	--	--	--
36.	03-08-2023	74.31	28.74	15.48	17.55	--	--	--	--	--	--	--	--
37.	07-08-2023	70.62	30.12	16.53	19.64	--	--	--	--	--	--	--	--
38.	10-08-2023	73.58	32.76	18.23	21.38	--	--	--	--	--	--	--	--
39.	14-08-2023	71.43	29.76	16.89	18.65	--	--	--	--	--	--	--	--
40.	17-08-2023	74.75	32.17	17.54	20.81	--	--	--	--	--	--	--	--
41.	21-08-2023	72.47	36.89	19.32	22.56	--	--	--	--	--	--	--	--
42.	24-08-2023	70.38	38.63	20.74	24.11	--	--	--	--	--	--	--	--
43.	28-08-2023	73.64	33.22	17.16	19.75	--	--	--	--	--	--	--	--
44.	31-08-2023	71.20	35.47	19.31	21.49	--	--	--	--	--	--	--	--
45.	04-09-2023	70.16	32.63	17.41	21.86	--	--	--	--	--	--	--	--
46.	07-09-2023	73.86	35.87	20.28	24.65	--	--	--	--	--	--	--	--
47.	11-09-2023	75.91	39.81	24.17	29.52	--	--	--	--	--	--	--	--

Continue...

Name of Location		WTP- Nr. CETP											
Sr. No.	Date of Monitoring	Parameter with Results											
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³
48.	14-09-2023	72.36	34.25	19.84	23.57	--	--	--	--	--	--	--	--
49.	18-09-2023	70.63	31.93	16.71	20.66	--	--	--	--	--	--	--	--
50.	21-09-2023	71.85	30.79	15.3	18.76	--	--	--	--	--	--	--	--
51.	25-09-2023	73.97	33.47	17.84	21.49	--	--	--	--	--	--	--	--
52.	28-09-2023	74.76	36.16	20.12	24.65	--	--	--	--	--	--	--	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR/SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
1.	03-04-2023	89.84	35.63	23.58	28.73	0.09	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	--
2.	06-04-2023	75.48	26.16	13.35	19.63	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
3.	10-04-2023	87.57	36.38	19.85	24.74	1.12	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
4.	13-04-2023	83.16	31.92	15.26	21.88	0.08	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
5.	17-04-2023	88.27	28.31	18.46	26.14	0.07	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
6.	20-04-2023	72.14	25.84	13.29	17.15	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
7.	24-04-2023	81.65	28.51	21.89	25.52	0.08	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
8.	27-04-2023	87.86	32.47	22.53	28.13	1	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
9.	01-05-2023	81.46	39.24	22.46	25.31	0.09	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
10.	04-05-2023	84.38	33.68	17.37	20.92	1.17	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
11.	08-05-2023	78.17	37.82	21.79	25.63	1	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
12.	11-05-2023	87.84	33.68	19.74	21.62	0.07	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
13.	15-05-2023	74.13	30.61	15.33	18.26	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
14.	18-05-2023	68.83	27.47	17.83	23.54	0.15	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
15.	22-05-2023	78.55	32.18	20.75	25.81	0.92	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
16.	25-05-2023	72.38	25.53	18.25	21.67	1	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
17.	29-05-2023	80.02	31.49	21.72	24.62	1.12	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
18.	01-06-2023	89.61	36.26	20.73	24.16	0.1	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
19.	05-06-2023	85.43	32.89	17.54	21.38	0.08	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
20.	08-06-2023	78.1	27.47	14.69	17.42	0.1	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
21.	12-06-2023	83.32	31.41	18.83	23.35	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
22.	15-06-2023	62.15	20.21	17.52	21.84	0.03	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
23.	19-06-2023	50.23	18.5	11.84	16.23	0.02	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
24.	22-06-2023	48.44	15.23	7.25	11.2	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
25.	26-06-2023	45.21	14.2	7.4	10.36	0.02	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
26.	29-06-2023	44.23	13.87	6.85	10.25	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
27.	03-07-2023	47.19	19.53	10.46	13.89	NOT DETECTED	<5.0	<5.0	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	NOT DETECTED	--
28.	06-07-2023	56.73	22.64	12.42	16.58	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
29.	10-07-2023	45.39	19.25	9.63	12.56	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
30.	13-07-2023	41.47	17.11	8.62	10.65	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
31.	17-07-2023	50.61	20.48	10.54	14.32	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
32.	20-07-2023	43.83	18.51	9.88	12.54	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
33.	24-07-2023	47.99	18.78	10.64	14.29	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
34.	27-07-2023	53.15	20.21	13.52	17.69	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
35.	31-07-2023	56.72	22.54	15.76	19.42	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
36.	03-08-2023	52.76	20.37	10.24	15.99	0.04	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
37.	07-08-2023	57.43	22.56	12.53	17.11	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
38.	10-08-2023	63.98	23.71	14.76	18.58	0.07	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
39.	14-08-2023	70.14	25.68	15.96	23.53	0.08	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
40.	17-08-2023	67.62	23.02	13.51	17.54	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
41.	21-08-2023	74.92	26.59	16.47	21.72	0.07	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
42.	24-08-2023	81.56	28.31	17.48	24.65	0.1	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
43.	28-08-2023	78.23	27.42	15.31	22.49	0.08	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
44.	31-08-2023	72.75	25.54	14.68	19.84	0.05	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
45.	04-09-2023	69.79	24.26	14.29	17.31	0.02	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
46.	07-09-2023	73.51	26.83	15.84	18.1	0.04	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED

Continue...

Name of Location		AIR STRIP												
Sr. No.	Date of Monitoring	Parameter with Results												
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	NH ₃ µg/m ³	Ozone µg/m ³	Pb µg/m ³	Ni ng/m ³	As ng/m ³	Benzene µg/m ³	B(a)P ng/m ³	HC
47.	11-09-2023	75.36	27.63	17.11	20.75	0.03	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
48.	14-09-2023	81.16	29.79	20.51	23.28	0.06	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
49.	18-09-2023	62.85	22.4	13.65	16.49	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
50.	21-09-2023	65.36	24.81	14.38	17.65	NOT DETECTED	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
51.	25-09-2023	70.49	25.68	15.39	18.91	0.02	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
52.	28-09-2023	73.56	27.41	17.85	20.52	0.03	--	--	--	--	--	NOT DETECTED	--	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	400	100	1	20	6	5	1	---
Test Method		IS - 5182, Part - 23	UERL/AIR /SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	UERL/AIR /SOP/05	IS - 5182, Part - 9	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 22	IS - 5182, Part - 11	IS - 5182, Part - 12	Gas analyzer



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		WTP- Nr. CETP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		12-04-2023	06-05-2023	03-06-2023	05-07-2023	05-08-2023	06-09-2023
1	06:00 to 07:00	60.5	64.5	61.9	58.3	60.7	64.1
2	07:00 to 08:00	58.4	63.5	63.5	63.2	61.4	62.5
3	08:00 to 09:00	62.5	62.8	58.9	66.8	64.7	65.7
4	09:00 to 10:00	66.1	60.5	63.5	64.5	66.3	68.4
5	10:00 to 11:00	65.4	65.3	67.8	68.6	65.3	66.9
6	11:00 to 12:00	66.3	62.8	68.5	65.2	62.8	67.3
7	12:00 to 13:00	65.5	66.7	65.5	67.1	65.9	69.3
8	13:00 to 14:00	67.3	69.8	62.6	66.1	67.8	63.2
9	14:00 to 15:00	65.8	65.5	63.5	69	64.6	64.7
10	15:00 to 16:00	62.8	68.2	66.7	68.2	66.9	66.5
11	16:00 to 17:00	65.4	66.5	68.5	66.9	63.7	68.6
12	17:00 to 18:00	66.1	66.1	66.9	62.8	65.8	67.1
13	18:00 to 19:00	63.8	67.3	62.5	65.8	63.6	63.7
14	19:00 to 20:00	63.5	66.7	65.2	61.3	60.8	64.8
15	20:00 to 21:00	66.4	65.4	62.3	68.9	64.6	62.1
16	21:00 to 22:00	60.7	63.9	60.7	64.1	63.1	61.2
Day Time		<75 dB (A)					

Continue...

Location Name		WTP- Nr. CETP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		12-04-2023	06-05-2023	03-06-2023	05-07-2023	05-08-2023	06-09-2023
1	22:00 to 23:00	60.5	59.6	59.6	59.3	57.3	56.2
2	23:00 to 24:00	59.5	59.9	60.3	59.1	60.3	59.8
3	24:00 to 01:00	60.5	62.6	60.5	61.6	62.8	61.3
4	01:00 to 02:00	58.1	61.8	55.4	56.4	61.8	60.1
5	02:00 to 03:00	60.5	55.4	59.4	57.3	64.3	58.3
6	03:00 to 04:00	57.5	55.5	60.2	53.1	61.7	56.4
7	04:00 to 05:00	55.6	55.2	59.8	58.4	58.9	58.2
8	05:00 to 06:00	55.5	56.2	56.4	57.5	54.8	60.4
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		AIR STRIP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		22-04-2023	27-05-2023	24-06-2023	22-07-2023	25-08-2023	23-09-2023
1	06:00 to 07:00	63.9	63.4	61.1	62.6	61.5	60.7
2	07:00 to 08:00	67.8	64.2	68.5	68.3	64.7	63.6
3	08:00 to 09:00	68.9	65.5	65.5	64.2	62.6	65.8
4	09:00 to 10:00	67.1	64.9	64.1	69.8	65.7	66.2
5	10:00 to 11:00	68.5	63.6	68.9	65.8	66.3	65.8
6	11:00 to 12:00	69.1	65.3	67.1	68.1	64.7	62.5
7	12:00 to 13:00	67.5	62.8	68.3	67.2	66.8	65.7
8	13:00 to 14:00	66.9	60.4	64.2	62.5	64.1	66.1
9	14:00 to 15:00	61.8	59.4	62.3	67.1	65.3	63.7
10	15:00 to 16:00	63.8	67.3	69.4	61.5	63.7	65.9
11	16:00 to 17:00	66.7	64.8	66.5	65.6	67.9	63.1
12	17:00 to 18:00	65.3	64.1	62.6	68.8	65.8	60.7
13	18:00 to 19:00	66.7	62.6	65.9	65.4	63.2	63.6
14	19:00 to 20:00	62.9	60.5	63.5	61.7	60.7	62.6
15	20:00 to 21:00	64.2	63.6	61.7	59.5	58.3	61.8
16	21:00 to 22:00	60.1	59.8	60.1	57.7	58.1	59.3
Day Time		<75 dB (A)					

Continue...

Location Name		AIR STRIP					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		22-04-2023	27-05-2023	24-06-2023	22-07-2023	25-08-2023	23-09-2023
1	22:00 to 23:00	61.3	59.6	58.1	57.8	59.1	60.1
2	23:00 to 24:00	59.7	57.8	60.4	58.3	56.9	62.3
3	24:00 to 01:00	57.4	58.3	57.8	61.2	60.3	59.8
4	01:00 to 02:00	56.9	61.2	57.6	59	63.8	57.4
5	02:00 to 03:00	59.4	59	60.3	58.7	64.1	54.3
6	03:00 to 04:00	60.3	58.7	56.2	61.1	61.9	57.8
7	04:00 to 05:00	58.4	61.1	56.9	57.3	58.8	58.2
8	05:00 to 06:00	60.6	58.2	57.1	54.7	56.4	60.2
Day Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	Sep-2023	GPCB LIMIT	Method of Test
			D.G.Set No. S-1 (380 KVA)		
			16-09-2023		
1	Particulate Matter	mg/Nm ³	24.74	150	IS 11255 (Part - 1)
2	Sulphur Dioxide as SO ₂	ppm	9.3	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO _x	ppm	33.58	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm ³	4.9	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



Nikunj D. Patel
(Chemist)



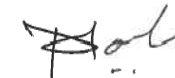

Jaivik S. Tandel
(Manager - Operations)

RESULTS OF BOREHOLE WATER SAMPLE

Sr. No	Parameters	Method	Unit	01-09-2023
				Nr. CETP
1	pH @ 25 ° C	IS 3025(Part 11)1983	--	8.12
2	Salinity	APHA 23rd Ed.,2017,2520 B	ppt	1.75
3	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:5.0)
4	Hydrocarbon	GC/GCMS	mg/L	Not Detected
5	Lead as Pb	IS 3025 (PART 47) 1994	mg/L	BDL(MDL:0.01)
6	Arsenic as As	APHA 23rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
7	Nickel as Ni	IS 3025 (PART 54) 2003	mg/L	0.079
8	Total Chromium as Cr	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
9	Cadmium as Cd	IS 3025(PART 41) 1992	mg/L	0.04
10	Mercury as Hg	APHA 23rd Ed.,2017, 3112-B	mg/L	BDL(MDL:0.001)
11	Zinc as Zn	IS 3025(PART 49) 1994	mg/L	0.09
12	Copper as Cu	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
13	Iron as Fe	IS 3025(PART 53) 2003	mg/L	0.331
14	Insecticides/Pesticides	USEPA 8081 B	µg/L	Absent
15	Depth of Water Level from Ground Level	--	meter	2.2



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Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF SOIL SAMPLE

SR. NO.	TEST PARAMETERS	UNIT	01-09-2023
			Near CETP
1	pH	--	9.12
2	Nitrogen as N	%	0.38
3	Phosphorus as P	mg/kg	502.5
4	Potassium as K	mg/kg	164.5
5	Baron as B	mg/kg	2.99
6	Calcium as Ca	mg/kg	401.4
7	Magnesium as Mg	mg/kg	62.2
8	Iron as Fe	%	0.88
9	Moisture	%	1.72
10	Organic Matter	%	1.42
11	Cation exchange capacity (CEC)	meq/100gm	10.02
12	TVC	CFU/gm	2.0 x 10 ⁶
13	Cadmium as Cd	mg/kg	BDL(MDL:1.0)
14	Thorium as Th	mg/kg	BDL(MDL:1.0)
15	Antimony as Sb	mg/kg	BDL(MDL:1.0)
16	Arsenic as As	mg/kg	BDL(MDL:1.0)

Continue...

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (31.03.2023 to 22.09.2024)

QCI-NABET Accredited EIA & GW Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001 : 2015 Certified Company

ISO 45001 : 2018 Certified Company

17	Lead as Pb	mg/kg	7.44
18	Chromium as Cr	mg/kg	4.31
19	Cobalt as Co	mg/kg	9.84
20	Copper as Cu	mg/kg	15.94
21	Nickel as Ni	mg/kg	13.75
22	Manganese and Mn	mg/kg	180.62
23	Vanadium as V	mg/kg	8.21



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Minimum Detection Limit

Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
2	Particulate Matter (PM2.5)	µg/m ³	5 µg/m ³
3	Sulphur Dioxide (SO ₂)	µg/m ³	4 µg/m ³
4	Nitrogen Dioxide (NO ₂)	µg/m ³	5 µg/m ³
5	Carbon Monoxide (CO)	mg/m ³	0.01 mg/m ³
6	Ammonia (NH ₃)	µg/m ³	5 µg/m ³
7	Ozone (O ₃)	µg/m ³	5 µg/m ³
8	Lead (Pb)	µg/m ³	0.5 µg/m ³
9	Nickle (Ni)	ng/m ³	1 ng/m ³
10	Arsenic (As)	ng/m ³	1 ng/m ³
11	Benzene	µg/m ³	1µg/m ³
12	Benzo(o)Pyrene	ng/m ³	0.1 ng/m ³
13	Hydro Carbon	µg/m ³	1 µg/m ³

Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	SuspeNOT DETECTEDed particulate matter	mg/Nm ³	2 mg/Nm ³
2	Sulphur Dioxide SO _X	mg/Nm ³	4 mg/Nm ³
3	Oxides of Nitrogen NO _X	mg/Nm ³	5 mg/Nm ³

CETP water

Sr. No.	Test Parameter	Unit	MDL
1	pH @ 27 ° C	--	2
2	Temperature	OC	5
3	Colour	Pt. Co. Scale	5
4	Total SuspeNOT DETECTEDed Solids	mg/L	4
5	Oil & Grease	mg/L	2
6	Phenolic CompouNOT DETECTED	mg/L	0.1
7	Fluoride	mg/L	0.2
8	Iron as Fe	mg/L	0.1
9	Zinc as Zn	mg/L	0.05
10	Trivalent Chromium	mg/L	0.05
11	Sulphide	mg/L	0.05
12	Ammonical Nitrogen	mg/L	2
13	BOD (3 days at 27 OC)	mg/L	1
14	COD	mg/L	2
15	Chloride (as Cl) ⁻	mg/L	1
16	Sulphate (as SO ₄)	mg/L	1
17	Total Dissolved Solids	mg/L	4
18	Total Residual Chlorine	mg/L	0.1
19	Copper as Cu	mg/L	0.05
20	Bio Assay test (%)	%	--