

No. PCC/DDD/NGT-673/2018/18-19/243
Office of the Member Secretary,
Pollution Control Committee,
DD & DNH,
Daman.

Date :- 21/09/2020

To,
The Executive Director (Technical),
NMCG, Ministry of Jal Shakti,
1st floor, Major Dhyan Chand National Stadium,
India Gate, New Delhi - 110032.

Sub.- Compliance of the order of NGT (PB), in O.A. No. 673/2018 dated 06/12/2019 in the matter of news items published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted: CPCB"- reg.

Sir,

With reference to the above mentioned subject, progress report for the month of August, 2020 in respect of UT of DNH and DD as per the format provided is enclosed for your kind perusal and information.

Yours sincerely,


Member Secretary
Pollution Control Committee,
Daman & Diu.
Daman

Copy to :- The Member Secretary,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi – 110032.

**Submission of Progress Report by UT of Dadra Nagar Haveli and Daman & Diu
of the Month of August - 2020
(Hon'ble NGT in the matter of OA No. 673/2018 dated 06.12.2019)**

Sl. No.	Activity to be monitored	Timeline	Compliance Status
1	Ensure 100 % treatment of sewage at least in-situ remediation.	15.07.2020 for District Panchayat, Daman And 31.12.2020 for DMC, Daman.	<ul style="list-style-type: none"> - Desilting work of 38 Natural Drains, 38 Sewage line and 30 culverts have been taken up. - 13 nallahs/ drains have been identified for Phyto remediation and Bioremediation measures. - NEERI has submitted a proposal on Phyto remediation and Bioremediation measures for in-situ treatment of drains. The work initiated for in-situ treatment of the drain near Rajiv Gandhi Setu, Daman on pilot basis.
	Commencement of setting up of STPs and connecting all the drains and other source of generation of sewage to the STPs must be ensured.	30.09.2020 for District Panchayat, Daman And 31.12.2020 for DMC, Daman.	<ul style="list-style-type: none"> - For Moti Daman area, STP of 4.21 MLD capacity is operational. - For Nani Daman area, DPR for STP of 16 MLD capacity and 4.5 KM vacuum sewage network line is ready. The said work have been proposed to be taken up under ENCORE (Enhancing Coastal and Ocean Resource Efficiency) project funded by World Bank and MoEF&CC. - There are total 12 nos Septic tank emptier in Daman District to clean and collect the sewage from septic tank of households and transport it to sewage treatment plant. - The centralized STP and Sewage Networking planned earlier for Panchayat area has been dropped and decided to go for standalone modular STP for each Gram Panchayat. District Panchayat, Daman is working out the details and preparation of DPR. - 04 Panchayats have been proposed for standalone modular STP i.e. Damanwada, Magarwada, Pariyari and Patlara.

			<ul style="list-style-type: none"> - Setting up of 13.00 MLD Sewerage Treatment Plant, Silvassa is completed. Connection of households to the sewerage network is under progress. - There are total 08 nos Septic tank emptier in Dadra Nagar Haveli District to collect the sewage from septic tank of individual households and societies which are not connected to STP Sewer line and transport it to STP. - There is no river in Diu District therefore it is not covered in the Polluted River Stretch Action Plan. - For Diu District, DPR for 7 MLD STP is approved and under Technical Sanction.
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning.	31.03.2021	<ul style="list-style-type: none"> - Setting up of STP at Nani Daman area may take more time. - DPR of the STP is ready and the approval from MoEF & CC and release of fund under ENCORE project is awaited. - Proposal is under process to get the Environmental Clearance for installation of said 16 MLD STP.
3	Chief Secretaries may set up appropriate monitoring mechanism at State Level:		Committee is being constituted at UT level and District level to monitor the progress and implementation.
	Specifying accountability of nodal authorities not below the Secretary level.		Secretary, Urban Development for municipal areas and Secretary, Rural Development for Rural areas.
	Chief secretaries may have an accountable person attached in their office for this purpose.		
	Monitoring at State level must take place.	Fortnightly commencing	

4	<p>Progress report may be furnished by the State/UTs to</p> <ul style="list-style-type: none"> • Secretary, Ministry of Jal Shakti. • Member Secretary, CPCB 		<p>Report as per specified formats will be sent.</p>
5	<p>Progress report may be comprised of details along with completion timelines on:</p>		
	<p>i. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.</p>		<ul style="list-style-type: none"> - Polluting drains contributing to river pollution is already identified in the Action Plan. - Desilting work in all natural drains and sewage drainages in the jurisdiction of District Panchayat areas and Municipal areas have been carried out. - There are 260 industries generating wastewater, 95 Nos. in Daman and 165 Nos. in DNH. All of them have installed Effluent Treatment Plant (ETP) for treatment of wastewater generated. Regular monitoring is carried out to ensure the ETP working and the treated wastewater meets the norms. - There are 59 Nos of Hotels in Daman, out of which 42 have installed Sewage Treatment Plant and - In Dadra Nagar Haveli, 48 Nos of Hotels, out of which 20 Hotels have installed Sewage Treatment Plant, 17 Hotels are under process, 09 have not installed and issued notices, and 02 nos of hotels are closed. - Industries and Hotels are not permitted to discharge wastewater outside the premises and regular monitoring and inspection is being carried out. - For in-situ treatment of drains, proposal is received from NEERI for Phyto-remediation and Bioremediation of drains and river and the same is under process.

			<p>The technology will be proposed at the drain near Rajiv Gandhi Setu, Daman is considered on pilot basis for in-situ treatment</p>																
	<p>ii. <u>Status of STPs, I&D and sewerage networks.</u> Details of existing infrastructure, Gap analysis, Proposed along with completion timeline.</p>	<p>31.03.2021</p>	<ul style="list-style-type: none"> - For Moti Daman area, STP of 4.21 MLD capacity is operational. - Performance of STP : <table border="1" data-bbox="813 533 1437 636"> <thead> <tr> <th rowspan="2">Location</th> <th rowspan="2">Technology</th> <th colspan="4">Compliance status</th> </tr> <tr> <th>pH</th> <th>TSS</th> <th>COD</th> <th>BOD</th> </tr> </thead> <tbody> <tr> <td>Daman</td> <td>SBR</td> <td>7.7</td> <td>7.1</td> <td>36</td> <td>6</td> </tr> </tbody> </table> <ul style="list-style-type: none"> - For Nani Daman area, STP of 16 MLD capacity is under process. - The centralized STP and Sewage Networking Project planned earlier for Panchayat area is dropped. It is proposed to have modular level STP in each Gram Panchayat and preparation of DPR for Four Panchayat area in Daman are on. - STP of 13 MLD capacity is located near Piparia Industrial area, Silvassa. STP is functional from 19/01/2019. A total of 3332 households have been connected to the sewerage scheme so far against 24,105 households. Currently, 1.93 MLD is received at STP and 100% is treated. Moreover, 0.024 MLD treated water is being reused daily for works such as road washing, horticulture, soil compaction, irrigation etc. - Sewerage networking is carried out under 2 Phase: <ul style="list-style-type: none"> <u>Phase-I</u> : Sewerage Pipeline network of 31.6 km along with 08 pumping stations have been completed. <u>Phase-II</u> : This phase is implemented in 02 parts. <ul style="list-style-type: none"> <u>Part – 01</u> : Project aims to provide chambers near households and / or to connect with sewerage network. Physical progress of the project is 78 % and the work is likely to be completed by 31/03/2021. 	Location	Technology	Compliance status				pH	TSS	COD	BOD	Daman	SBR	7.7	7.1	36	6
Location	Technology	Compliance status																	
		pH	TSS	COD	BOD														
Daman	SBR	7.7	7.1	36	6														

Part – 01 : Project aims to lay down the sewerage network for the remaining part of SMC area. Additional 04 pumping stations & 02 lifting stations are under construction. Physical progress of the project is 55 % and the work is likely to be completed by 31/03/2021.

- Silvassa Municipal Council is advised to expedite the connections of household with sewer lines and STP.
- Performance of STP :

Location	Technology	Compliance status			
		pH	TSS	COD	BOD
Dadra Nagar Haveli (DNH)	SBR	7.15	5	80	8

- There is no river in Diu District therefore it is not covered in the Polluted River Stretch Action Plan.
- For Diu District, STP of 7 MLD is approved under Diu Smart City. The DPR is approved by PWD and tendered, only one response is received.
- Now the Diu Municipal Council has revised the STP capacity to 7 MLD with 10 years consequently here is a change in the cost estimate and file resubmitted for revised Technical Sanction.

iii. Status of CETPs.
 Details of existing CETP and ETP infrastructure, Gap analysis, Proposed along with completion timeline, No. of industries and complying status.

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- There is no CETP installed in the UT of Daman and Dadra Nagar Haveli.
- All the wastewater generating industries have installed ETP. 95 Nos. in Daman and 165 Nos. in DNH. All of them have installed effluent treatment plant for treatment of wastewater generated.

City/ District	Total no. of wastewater generating Industries	Total quantity of wastewater generation (KL/Day)	Total capacity of ETP (KL)
Daman	95	2020.74	3746.2

			<table border="1"> <tr> <td>Dadra Nagar Haveli (DNH)</td> <td>165</td> <td>4515</td> <td>7652</td> </tr> </table>	Dadra Nagar Haveli (DNH)	165	4515	7652
Dadra Nagar Haveli (DNH)	165	4515	7652				
			- No industry is permitted to discharge industrial effluent outside the premises.				
<p>iv. <u>Status of Solid Waste Management & Details of Processing Facilities.</u> Details of existing infrastructure, Proposed along with completion timeline.</p>	31/12/2020	<p><u>Existing Infrastructure –</u></p> <ul style="list-style-type: none"> - 100% Door to Door garbage collection have been initiated in Municipal area and all the 14 Gram Panchayats of Daman district. - The garbage collected is transported to the solid waste processing site of Daman Municipal Council at Dunetha with the resource of respective Gram Panchayat / District Panchayat and operated by agency "M/s. C D Transport" the said waste is processed at a rate of Rs. 786/MT as per the Solid Waste Management Rules, 2016. - Composting plant of 100 MT/Day is installed and operational. - 100 % processing is achieved by collection, segregation, composting and recycling in Daman district. - The recycled waste is being sent by the Waste Processing unit to the following Cement Factories to be used as Refused Derived Fuel (RDF):- <ul style="list-style-type: none"> 1. Ambuja cement in Kodinar, Gujarat. 2 Ultra Tech Cement in Dhar, Madhya Pradesh and Rajula, Gujarat. - At DNH, 100% Door-to-Door segregated waste is collected. 100% all the waste collected from Silvassa Municipal Area and District Panchayat area of DNH is processed at Solid Waste Management Plant at Kharadpada. - The facility has a capacity to process 150 MT/Day. 					

<p>v. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river.</p>	<p>--</p>	<ul style="list-style-type: none"> - Pollution Control Committee, DNH and DD carry out water quality monitoring at 10 location in the River Damanganga and 02 discharge points located in Gujarat i.e. Outlet of CETP, Vapi and Outlet of ETP of M/s GHCL, Bhilad, Gujarat. - The data for the month of July, 2020 is as under : <ul style="list-style-type: none"> 1. DO : 4 to 6.5 2. BOD : <1(at all location) 3. Total Coliform :40 to 1600 4. Fecal Streptococci : 4 to 280 - Phyto-remediation and Bioremediation proposal for the identified drain has been received from NEERI and the same is under process. The drain near Rajiv Gandhi Setu, Daman is being considered for in-situ treatment on pilot basis.
<p>vi. Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc.</p>	<p>On regular basis</p>	<ul style="list-style-type: none"> - To prevent illegal dumping of waste, regular monitoring carried out by Municipal Council and Panchayat. - Dumping of waste is prohibited and the waste generated is transported to the processing site of Daman Municipal Council at Dunetha. - Waste from Hotel and Industries are managed and process by themselves. - Awareness programmes and community mobilisation is being carried out. - Generated bio-medical waste disposed through the CBMWTFDF M/s En-clear Pvt. Ltd., Surat, Gujarat. - Plastic waste generated from residential and commercial area is being collected by Municipal council and Panchayat and disposed through the recycler. - Other bio-degradable waste is being processed through Composing Plant of capacity 100 tww/Day.

			<ul style="list-style-type: none"> - In DNH, to manage plastic waste, Solid Waste Management (Handling and Management) (Amendment) Bye-Laws, 2018 has been approved and published in Extra Ordinary Gazette on date: 10th January 2020. Further, plastic shredding machine is installed in Dadra and Nagar Haveli to convert plastic waste in refused derived fuel (RDF). Agreement is also done with authorised recyclers and cement industry to recycle plastic and use RDF. As per policy, solid waste is being processed centrally in SMC area. Silvassa Municipal Council have convinced Bulk waste generators such as Hoteliers with accommodation capacity of 100 beds or above to process their waste through composting in their respective premises. 02 hotels have already commenced to process their waste to compost. Bio-medical waste management is under the purview of Department of Health & Family Welfare, D&NH and DD.
vii. Ground regulation.	water	31.09.2020	<ul style="list-style-type: none"> - 67 bore well and 33 open wells have been successfully recharged through rooftop recharging system in 14 Gram Panchayats of Daman district. - Additional location for recharge of ground water is being identified in each Gram Panchayats and each Gram Panchayats have taken the Rain Water Harvesting / Recharge work under their respective Action Plan. - In industrial area, all the industries were directed to obtain No Objection Certificate (NOC) from Central Ground Water Authority (CGWA). - All the upcoming construction and industrial projects shall be issued strict instruction for providing a suitable rainwater harvesting system. - Training and awareness programme under Jal Shakti Abhiyan will be organized.

			organized.
	viii. Adopting good irrigation practices,	--	<ul style="list-style-type: none"> - Farm ponds have been created for ground water rejuvenation. Terrace cultivation is being practiced in the undulating terrains of DNH. - Farm ponds have been maintained to check and reduce runoff. - Training programme for awareness on Jal Shakti Abhiyan and micro irrigation projects for Farmers was conducted at FTC, Kachigam on 15th October, 2019
	ix. Protection and management of Flood plain Zones (FPZ),		<ul style="list-style-type: none"> - 8 check dams in the catchment area of Damanganga River and 3 percolation ponds have been constructed. - Nearly 45 checkdams constructed in the previous year are being maintained. - Plantation have also been carried out along the stream and nallahs.
	x. Rain water harvesting,	31.09.2020	<ul style="list-style-type: none"> - 7 Conventional RWH structures were built under Adarsh Gram Panchayat by PWD, District Panchayat, Daman. - 67 Nos. of rooftop rain water harvesting structures have been installed to recharge bore wells and 33 Nos. of open wells in 14 Panchayats of Daman district. - 2 Ponds have been successfully recharged during Jal Shakti Abhiyan. - Gram Panchayats have undertaken the Rain Water Harvesting / Recharge work under their respective Action Plan. All the government premises located in Panchayat areas are being implemented RWH systems in their premises. - All new industrial units and construction projects shall provide suitable rainwater harvesting system to reduce dependency over ground water resource or to recharge the ground water table.

			<ul style="list-style-type: none"> - In DNH rain water harvesting for 8 nos. of Borewell, 16 nos. of openwell recharge and 02 nos. of rooftop through injection well system at Mandoni and Sindoni Panchayat under Jal Shakti Abhiyan is provided. - Silvassa Municipal Council (SMC) have constructed Rooftop rain water harvesting systems in 15 schools & 45 Govt. buildings in SMC area to recharge ground water table.
	xi. Maintaining minimum environmental flow of river,		Minimum environmental flow for the river is maintained at various locations.
	xii. Plantation on both sides of the river,		<ul style="list-style-type: none"> - Tree plantations were carried out along the nallah, and inlets in upstream area and along the river. - 36 Ha of Mangroves in Diu and 4lakh in Daman along Damanganga river near Moti Daman have been taken up. - Total 7500 nos. of trees are planted under Jal Shakti Abhiyan. Necessary initiatives shall be taken by the local bodies and forest department to increase the plantation on both the sides of the river by creating awareness programs. In addition to that regular plantation carried out at various location.
	xiii. Setting up biodiversity parks on flood plains by removing encroachment.		<p>Following bio-diversity parks had been setup in the Damanganga River catchment area:</p> <ol style="list-style-type: none"> 1. Nakshatra Van. 2. City Park. 3. Butterfly Garden 4. Precedent Garden.

Industrial Wastewater Management in UT of DNH & DD

S. No.	City / Town	Total No. of Industries	Total no. of wastewater generating Industries	Total quantity of wastewater generation (KL/Day)	Total capacity of ETP	Total quantity of treated wastewater (KL/Day)	Utilization
1	Daman	3379	95	2020.74	3746.2 KL	2020.74	Discharge is not permitted, only reuse or recycle in manufacturing process/ Boiler/ Toilet flushing/ Gardening
2	Dadra Nagar Haveli	3953	165	4515	7652 KL	4515	
3	Diu	55	02	7	11	7	

Sewage Treatment Plant in UT of DNH & DD

S. No.	City/Town	No of STP	Sewage generation	STP installed (MLD)	STP proposed (MLD)	Technology	Status
1	Daman	01	7.5 MLD	4.21 MLD	16 MLD	SBR	- 4.21 MLD operational. - 16 MLD under approval of ENCORE and MoEF&CC.
2	Dadra Nagar Haveli	01	1.93 MLD	13 MLD	--	SBR	13 MLD STP operational
3	Diu	01	3.2 MLD	--	7 MLD	SBR	Under approval of Technical Sanction

Sewage Treatment Plant in Hotels

S. No.	City / Town	Total No. of Hotels	Hotel have installed STP	Under progress	Not installed	Action taken
1	Daman	59	42	Nil	17	Under process
2	Dadra Nagar Haveli	48	20	17	09 (02 closed)	Notice issued
3	Diu	45	45	Nil	Nil	

1. At Madhuban Dam, DNH

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	30	30	31	31	32		30
2	pH		7.57	7.86	7.72	7.65	7.69		7.72
3	Conductivity	µs/cm	248.1	145.2	274.2	232.8	261.5		254.9
4	Dissolve Oxygen	mg/L	6.6	6.7	6.4	6.1	6.2		6.5
5	BOD	mg/L	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)
6	COD	mg/L	BDL(<2.0)	BDL(<2.0)	3.8	7.5	7.5		BDL(<2.0)
7	TDS	mg/L	164	92	180	152	168		164
8	TFS	mg/L	102	58	116	6	106		104
9	TSS	mg/L	BDL(<4.0)	12	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)		BDL(<4.0)
10	Turbidity	NTU	0.1	0.1	0.1	0.1	0.1		1
11	Hardness	mg/L	67.7	81.5	84.7	77.6	77.6		65.3
12	Total-Alkalinity	mg/L	98.5	93.6	101.5	86.3	91.4		80.4
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)		BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)		0.12
15	Nitrate as N	mg/L	0.2	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)		0.6
16	Ammonia as N	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)
17	TKN	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)
18	Boron	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.		N.D.
19	Chloride	mg/L	9.6	7.8	11.2	8.4	10.9		13.3
20	Sulphate	mg/L	4.1	9.2	10.8	6.1	3.6		3.1
21	Phosphate	mg/L	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)		0.16
22	Sodium	mg/L	22.5	14.2	18.6	12.2	14.9		17.2
23	Potassium	mg/L	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)
24	Calcium	mg/L	16.6	24.1	19.8	16.3	16.3		14.6
25	Magnesium	mg/L	6.4	5.2	8.6	9	9		7
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)
27	Nickel	mg/L	BDL(<0.02)	BDL(<0.02)	0.038	0.026	0.028		BDL(<0.02)
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)		BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)
31	Cadmium	mg/L	BDL(<0.003)	0.006	0.006	BDL(<0.003)	BDL(<0.003)		BDL(<0.003)
32	Zinc	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)
34	Iron	mg/L	0.176	0.138	0.134	0.109	0.116		0.116
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)		BDL(<0.04)
37	Gama BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)		BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)		BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)		BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)		BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)		BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)		BDL(<30.0)
46	Carbaryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)		BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)		BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	27	39	33				40
51	Fecal Coliform	MPN Index/100 ml	7	11	7				7
52	Fecal streptococci	MPN Index/100 ml	4	4	4				4

3. At Lawacha Temple, State Gujarat

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	31	30	32		32	32	31
2	pH		8.09	8.04	8.08		7.82	8.01	7.33
3	Conductivity	µs/cm	335.5	239.1	315.5		329.5	263.3	267.2
4	Dissolve Oxygen	mg/L	6.5	6.3	5.9		6.2	6.6	5.9
5	BOD	mg/L	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
6	COD	mg/L	8.2	12	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
7	TDS	mg/L	220	154	208		208	170	174
8	TFS	mg/L	144	98	136		142	106	112
9	TSS	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)		BDL(<4.0)	BDL(<4.0)	32
10	Turbidity	NTU	0.1	0.1	0.1		0.1	0.1	1
11	Hardness	mg/L	75.2	71.8	92.4		85.4	81.7	84.5
12	Total-Alkalinity	mg/L	118.2	83.7	116.7		106.6	101.1	90.5
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)		BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)		BDL(<0.1)	BDL(<0.1)	BDL(<0.1)
15	Nitrate as N	mg/L	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)		BDL(<0.1)	0.2	0.3
16	Ammonia as N	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
17	TKN	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
18	Boron	mg/L	N.D.	N.D.	N.D.		N.D.	N.D.	N.D.
19	Chloride	mg/L	15.2	13.4	19.4		19.8	13.1	8.9
20	Sulphate	mg/L	10.1	5.5	7.3		9	3.3	14.2
21	Phosphate	mg/L	0.12	BDL(<0.1)	BDL(<0.1)		BDL(<0.1)	0.14	0.12
22	Sodium	mg/L	36.2	16.3	18.1		27.2	18.5	16.8
23	Potassium	mg/L	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	1	1.1
24	Calcium	mg/L	20.3	20.2	24.7		21	21.3	22.3
25	Magnesium	mg/L	5.9	5.2	7.5		8	6.9	7
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)		BDL(<0.02)	BDL(<0.02)	BDL(<0.02)
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)		BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)		BDL(<0.003)	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.204	0.209	0.112		0.105	BDL(<0.1)	0.222
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)		BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)		BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)		BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)		BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)		BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)		BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)		BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)		BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)		BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	94	70	63			70	70
51	Fecal Coliform	MPN Index/100 ml	40	23	26			33	40
52	Fecal streptococci	MPN Index/100 ml	13	11	11			21	13

4. At Near Surat Beverages, Dadra, DNH

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	31	29	32		31	31	31
2	pH		8.03	7.94	7.7		7.54	8.15	7.52
3	Conductivity	µs/cm	339.5	259.9	367.1		344.2	270.5	247.9
4	Dissolve Oxygen	mg/L	6.2	6.4	6.1		6.4	6.8	5.8
5	BOD	mg/L	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
6	COD	mg/L	BDL(<2.0)	4	3.8		3.8	BDL(<2.0)	BDL(<2.0)
7	TDS	mg/L	224	172	244		226	178	162
8	TFS	mg/L	142	106	156		144	114	104
9	TSS	mg/L	BDL(<4.0)	8	BDL(<4.0)		BDL(<4.0)	BDL(<4.0)	38
10	Turbidity	NTU	0.1	0.1	0.1		0.1	0.1	5
11	Hardness	mg/L	94	87.3	95.5		89.2	83.6	82.6
12	Total-Alkalinity	mg/L	108.3	103.4	111.7		101.5	95.8	95.5
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)		BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)		BDL(<0.1)	0.28	0.33
15	Nitrate as N	mg/L	0.2	0.7	0.8		0.4	BDL(<0.1)	0.2
16	Ammonia as N	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
17	TKN	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
18	Boron	mg/L	N.D.	N.D.	N.D.		N.D.	N.D.	N.D.
19	Chloride	mg/L	25.8	8.9	17.5		15.9	13.6	8.9
20	Sulphate	mg/L	6.3	6.2	7.5		7.8	2	5.3
21	Phosphate	mg/L	0.16	BDL(<0.1)	BDL(<0.1)		BDL(<0.1)	BDL(<0.1)	0.15
22	Sodium	mg/L	24.5	16.2	24.4		19.8	15.2	13.8
23	Potassium	mg/L	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	1.2
24	Calcium	mg/L	22.6	25.3	25.3		21.8	21.3	20
25	Magnesium	mg/L	9.1	5.8	7.9		8.5	7.4	7.9
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)		BDL(<0.02)	BDL(<0.02)	0.083
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)		BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	BDL(<0.003)	0.005	BDL(<0.003)		BDL(<0.003)	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)		BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.146	0.282	0.102		0.114	BDL(<0.1)	0.457
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)		BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gama BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)		BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)		BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)		BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)		BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)		BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)		BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)		BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyrifos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)		BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)		BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)		BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	70	84	79			63	70
51	Fecal Coliform	MPN Index/100 ml	21	17	13			11	21
52	Fecal streptococci	MPN Index/100 ml	13	8	6			2	6

S. At Vapi Weir, Vapi, State Gujarat

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	30	29	31	31	33	31	30
2	pH		8.07	7.75	7.93	7.86	8.06	8.11	7.15
3	Conductivity	µs/cm	362.7	256.4	385.2	231.9	269.9	316	256.9
4	Dissolve Oxygen	mg/L	5.9	6.5	6.2	5.9	6.5	4.4	5.1
5	BOD	mg/L	2	1.2	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
6	COD	mg/L	16.3	22.2	3.8	8.2	3.7	BDL(<2.0)	8
7	TDS	mg/L	238	168	256	148	178	208	168
8	TFS	mg/L	158	108	166	92	112	128	108
9	TSS	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	90
10	Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.1	5
11	Hardness	mg/L	92.1	87.3	103.2	79.5	85.4	95	80.6
12	Total-Alkalinity	mg/L	133	108.4	121.8	91.4	106.6	111.8	90.5
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	0.52	BDL(<0.1)	BDL(<0.1)	0.12	0.19	BDL(<0.1)	BDL(<0.1)
15	Nitrate as N	mg/L	0.2	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	0.2	0.4	0.5
16	Ammonia as N	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
17	TKN	mg/L	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
18	Boron	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
19	Chloride	mg/L	21.3	7.4	20.4	15.9	11.4	18.9	7.5
20	Sulphate	mg/L	7.3	4.1	5.9	2.9	3.4	6.9	14.5
21	Phosphate	mg/L	0.25	BDL(<0.1)	BDL(<0.1)	0.22	0.27	0.17	0.17
22	Sodium	mg/L	32.6	15.9	20.6	17.1	18.9	22.7	15.5
23	Potassium	mg/L	1.2	1.2	2.7	BDL(<1.0)	BDL(<1.0)	1.2	1.5
24	Calcium	mg/L	22.6	24.1	27.8	20.2	22.5	26.6	20
25	Magnesium	mg/L	8.7	6.6	8.2	7.1	7.1	6.9	7.5
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)	BDL(<0.02)
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.145	BDL(<0.1)	0.124	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	0.224
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carbaryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	540	540	540			280	540
51	Fecal Coliform	MPN Index/100 ml	220	280	170			90	140
52	Fecal streptococci	MPN Index/100 ml	50	50	240			80	50

6. At 100 mtr Downstream of Outlet of CETP, Vapi, State Gujarat

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	30	30	32	31	32	32	31
2	pH		7.41	7.44	7.56	7.64	7.94	7.83	7.23
3	Conductivity	µs/cm	1860	1606	1870	1380	1342	998	2230
4	Dissolve Oxygen	mg/L	4.5	4.9	5.1	4.6	5.8	5.5	4
5	BOD	mg/L	2.8	2.3	2.9	3.4	6	BDL(<1.0)	18
6	COD	mg/L	24.5	22.8	18	28.5	52.6	12	145
7	TDS	mg/L	1212	1062	1248	928	852	656	1482
8	TFS	mg/L	870	708	818	608	558	426	998
9	TSS	mg/L	6	24	12	BDL(<4.0)	BDL(<4.0)	6	108
10	Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.1	10
11	Hardness	mg/L	368.6	232.8	400.4	250.3	263.8	237.5	378.2
12	Total-Alkalinity	mg/L	157.6	221.6	86.3	126.9	137	181	165.8
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	0.53	0.49	0.54	0.37	0.46	BDL(<0.1)	0.89
15	Nitrate as N	mg/L	1	3	3.2	2.1	2.4	0.5	2
16	Ammonia as N	mg/L	18.2	6	7.4	2.3	2.8	7.8	11.8
17	TKN	mg/L	25.4	11.4	14.8	7.7	9.9	14.6	18.9
18	Boron	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
19	Chloride	mg/L	430.9	294.9	383.7	245.7	258.1	208.8	410.2
20	Sulphate	mg/L	158	165	286	154.6	151.4	44.3	365.2
21	Phosphate	mg/L	0.58	1.7	2.2	BDL(<0.1)	BDL(<0.1)	4	0.72
22	Sodium	mg/L	286	229.1	263.4	142.5	155.2	106.3	345.6
23	Potassium	mg/L	6.5	6.3	7.6	5.8	6.4	8	14.6
24	Calcium	mg/L	81.6	66.1	92.6	52.1	57.5	60.9	73.1
25	Magnesium	mg/L	40.1	16.5	41.2	29.2	29.2	20.8	47.6
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	0.043	BDL(<0.02)	0.057	0.048	0.051	BDL(<0.02)	0.081
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	0.057	BDL(<0.05)	0.17
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	0.087
31	Cadmium	mg/L	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	0.058	BDL(<0.05)	0.176	0.187	0.241	BDL(<0.05)	0.286
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.163	0.435	1.018	0.259	0.337	BDL(<0.1)	4.608
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyrifos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carbaryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	>1600	>1600	>1600			>1600	>1601
51	Fecal Coliform	MPN Index/100 ml	1600	1600	1600			1600	1600
52	Fecal streptococci	MPN Index/100 ml	900	900	900			140	280

7. At Namdha Village, Vapi, State Gujarat

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	30	30	31	31	32	32	30
2	pH		7.42	7.39	6.94	7.91	8.08	7.67	7.3
3	Conductivity	µs/cm	2770	4250	2590	520.5	534	1065	300.9
4	Dissolve Oxygen	mg/L	4.5	4.2	4.3	5	5.6	3.5	5.2
5	BOD	mg/L	2.8	2.4	2.8	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
6	COD	mg/L	28.2	24.1	24	11.9	15	20.1	BDL(<2.0)
7	TDS	mg/L	1842	2820	1732	346	338	708	196
8	TFS	mg/L	1452	1908	1136	222	220	492	124
9	TSS	mg/L	46	26	BDL(<4.0)	BDL(<4.0)	4	BDL(<4.0)	56
10	Turbidity	NTU	1	0.1	0.1	0.1	0.1	0.1	5
11	Hardness	mg/L	554.6	504.4	366.5	124.2	130	275.5	76.8
12	Total-Alkalinity	mg/L	162.5	167.5	132	106.5	116.7	138.4	90.5
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	0.52	0.51	0.39	0.17	0.22	BDL(<0.1)	BDL(<0.1)
15	Nitrate as N	mg/L	2	1.5	2.1	0.4	0.7	2.1	0.4
16	Ammonia as N	mg/L	9.4	4	2.8	BDL(<2.0)	BDL(<2.0)	8.4	BDL(<2.0)
17	TKN	mg/L	16.6	9.6	10.8	5.1	5.7	15.5	7.6
18	Boron	mg/L	0.48	0.29	0.18	0.15	0.11	0.12	N.D.
19	Chloride	mg/L	1084.8	1239.7	777.1	64	69	204	25.1
20	Sulphate	mg/L	409	388.2	357	32.8	37	138.2	13.1
21	Phosphate	mg/L	0.5	0.4	0.2	0.2	0.2	0.1	0.17
22	Sodium	mg/L	677.9	732	624.8	46.5	51.7	116.3	28
23	Potassium	mg/L	30.9	30.5	23.1	1.9	2.3	7.9	1.8
24	Calcium	mg/L	86.6	81.6	62.3	28.8	31.9	53.3	19.2
25	Magnesium	mg/L	82.2	73.1	51.3	12.7	12.3	34.6	7
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	0.062	0.059	0.039	0.022	0.025	1.025	BDL(<0.02)
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	0.009	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	0.063	0.053	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.809	0.747	0.215	BDL(<0.1)	BDL(<0.1)	0.851	1.278
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	>1600	>1600	>1600			540	>1600
51	Fecal Coliform	MPN Index/100 ml	1600	1600	1600			350	500
52	Fecal streptococci	MPN Index/100 ml	350	430	300			50	110

8. At Zari Causeway, Kachigam

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	30	29	32	33	32	32	30
2	pH		7.53	7.38	7.08	7.26	7.34	7.62	7.63
3	Conductivity	µs/cm	7010	7985	3440	3210	3440	4010	304.2
4	Dissolve Oxygen	mg/L	4.5	4.3	4.4	4.8	4.8	4.6	5.2
5	BOD	mg/L	2.4	2.2	2.7	BDL(<1.0)	BDL(<1.0)	4	BDL(<1.0)
6	COD	mg/L	26.5	22.8	28	11.3	7.5	32.1	4
7	TDS	mg/L	4692	5312	2292	2144	2242	2672	192
8	TFS	mg/L	3082	3552	1608	1492	1520	1798	122
9	TSS	mg/L	12	14	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	28	104
10	Turbidity	NTU	0.1	0.1	0.1	0.1	0.1	0.1	10
11	Hardness	mg/L	996.4	950.6	342.7	465.6	432.6	541.5	78.7
12	Total-Alkalinity	mg/L	177.3	162.5	126.9	60.9	55.8	133.1	90.5
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	0.54	0.6	0.38	0.45	0.38	BDL(<0.1)	BDL(<0.1)
15	Nitrate as N	mg/L	2.5	1.5	1.5	3	2.1	1	0.3
16	Ammonia as N	mg/L	8.8	4	2.6	BDL(<2.0)	2.3	BDL(<2.0)	BDL(<2.0)
17	TKN	mg/L	15.7	9.7	9.4	7.4	7.4	6.3	BDL(<2.0)
18	Boron	mg/L	0.41	0.32	0.22	0.16	0.15	0.23	N.D.
19	Chloride	mg/L	2159.5	2719	796.5	1136.5	1116.2	1199.6	15
20	Sulphate	mg/L	461	561.8	496	176.7	143.6	377.6	16.8
21	Phosphate	mg/L	1.1	0.3	0.26	0.23	0.18	4.6	0.39
22	Sodium	mg/L	1348	1429.5	724	560.6	684	752.2	22
23	Potassium	mg/L	65	66.5	25.5	26.8	19.6	35.2	2
24	Calcium	mg/L	135.6	105	64.8	104.1	88.6	60.9	20
25	Magnesium	mg/L	159.8	167.4	43.9	50	51.4	94.6	7
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	0.086	0.089	0.046	0.046	0.039	0.023	BDL(<0.02)
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	0.037	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	0.059	0.056	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.51	0.452	0.228	BDL(<0.1)	0.146	BDL(<0.1)	1.199
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	>1600	>1600	>1600			920	>1600
51	Fecal Coliform	MPN Index/100 ml	1600	1600	1600			500	1600
52	Fecal streptococci	MPN Index/100 ml	240	280	280			140	220

9. At D/S of Discharge Point of Distillery, Daman

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	30	30					
2	pH		8.03	7.34					
3	Conductivity	µs/cm	28710	16950					
4	Dissolve Oxygen	mg/L	4.8	4.7					
5	BOD	mg/L	2.3	1.9					
6	COD	mg/L	26.5	19.3					
7	TDS	mg/L	19122	11082					
8	TFS	mg/L	12592	7462					
9	TSS	mg/L	40	56					
10	Turbidity	NTU	1	1					
11	Hardness	mg/L	4042	2211.6					
12	Total-Alkalinity	mg/L	192.1	167.5					
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)					
Inorganic									
14	Fluoride	mg/L	0.92	0.91					
15	Nitrate as N	mg/L	2.5	1					
16	Ammonia as N	mg/L	BDL(<2.0)	7.2					
17	TKN	mg/L	5.2	14					
18	Boron	mg/L	1.29	1.25					
19	Chloride	mg/L	10138.7	5484.1					
20	Sulphate	mg/L	1854	1230.5					
21	Phosphate	mg/L	0.6	0.31					
22	Sodium	mg/L	5362.5	2766					
23	Potassium	mg/L	242	118					
24	Calcium	mg/L	414.4	174.9					
25	Magnesium	mg/L	730.9	431.3					
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)					
27	Nickel	mg/L	0.355	0.22					
28	Copper	mg/L	BDL(<0.05)	BDL(<0.05)					
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)					
30	Chromium	mg/L	0.057	73					
31	Cadmium	mg/L	0.187	0.116					
32	Zinc	mg/L	0.141	0.094					
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)					
34	Iron	mg/L	0.927	0.833					
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)					
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)					
37	Gama BHC	ppb	BDL(<2.0)	BDL(<2.0)					
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)					
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)					
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)					
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)					
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)					
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)					
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)					
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)					
46	Carbaryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)					
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)					
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)					
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)					
Biological Testing									
50	Total Colliform	MPN Index/100 ml	430	350					
51	Fecal Colliform	MPN Index/100 ml	110	130					
52	Fecal streptococci	MPN Index/100 ml	34	30					

10. At Motl Daman Jetty

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	<C	30	29	31	32	31	31	30
2	pH		8.01	7.72	7.1	7.56	7.41	7.7	7.83
3	Conductivity	µs/cm	32820	19850	21390	26910	22940	27110	3370
4	Dissolve Oxygen	mg/L	5.8	5.5	5.4	5.9	4.5	4.3	5.1
5	BOD	mg/L	1.9	2.2	1.4	2.2	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
6	COD	mg/L	36.5	30.1	22	28.3	15	32.1	8
7	TDS	mg/L	21620	13108	14208	17820	14980	17882	2172
8	TFS	mg/L	14248	8692	10128	12012	10520	12028	1428
9	TSS	mg/L	58	56	10	14	10	158	172
10	Turbidity	NTU	0.1	5	5	0.1	0.1	1	10
11	Hardness	mg/L	5076	3220.4	3850	3278.6	3212.6	3097	432
12	Total-Alkalinity	mg/L	187.1	157.6	157.3	126.9	106.6	138.4	110.6
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	1.29	1.09	1.15	1.21	1.1	BDL(<0.1)	BDL(<0.1)
15	Nitrate as N	mg/L	3	1	1.4	2.1	1.8	0.5	0.2
16	Ammonia as N	mg/L	3.9	BDL(<2.0)	2.8	BDL(<2.0)	2.3	BDL(<2.0)	BDL(<2.0)
17	TKN	mg/L	10.3	7.3	8.5	8	7.7	6.3	8.4
18	Boron	mg/L	0.36	0.27	0.31	0.26	0.26	0.16	N.D.
19	Chloride	mg/L	11760.9	6451.9	6813.9	10025.3	7940.8	9616.2	1037.3
20	Sulphate	mg/L	1917	1666	1824	1157	1068	1456	136.5
21	Phosphate	mg/L	1	0.28	0.35	0.13	0.11	2.7	0.3
22	Sodium	mg/L	5719.5	2970	3012	4896	3592	5069	581.9
23	Potassium	mg/L	277	135	192	270	158	228	29.6
24	Calcium	mg/L	226	248.8	925.8	326.6	307.9	205.6	42.3
25	Magnesium	mg/L	1096.4	726	374.2	598.7	594	627.9	79.3
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	0.443	0.334	0.466	0.408	0.412	0.543	0.042
28	Copper	mg/L	0.06	0.053	0.054	0.059	0.039	0.071	BDL(<0.05)
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	0.078	0.107	0.083	0.076	0.069	0.071	BDL(<0.05)
31	Cadmium	mg/L	0.241	0.175	0.235	0.18	0.195	0.249	0.015
32	Zinc	mg/L	0.169	0.109	0.156	0.104	0.137	0.081	BDL(<0.05)
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	0.863	0.881	1.095	0.379	1.051	0.709	0.468
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	350	220	170			130	350
51	Fecal Coliform	MPN Index/100 ml	40	50	50			33	40
52	Fecal streptococci	MPN Index/100 ml	27	27	33			21	30

12. At Outlet of CETP, Vapi, State Gujarat

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	31	29	31	31	33	32	31
2	pH		7.22	7.24	7.03	7.42	7.8	7.52	6.91
3	Conductivity	µs/cm	10936	8870	12100	8940	8410	7170	8310
4	Dissolve Oxygen	mg/L	2.4	1.5	1.9	2.1	2.2	3	3.5
5	BOD	mg/L	28	23	24	29	25.5	10	16
6	COD	mg/L	242	192.6	214	238	229.1	80.3	124.9
7	TDS	mg/L	7310	5908	8052	5986	5512	4792	5464
8	TFS	mg/L	5282	3898	5332	3940	3804	3324	3604
9	TSS	mg/L	44	14	8	18	26	34	24
10	Turbidity	NTU	1	0.1	0.1	1	1	1	1
11	Hardness	mg/L	2745.1	2298.9	2787.4	1641.2	1658.7	1425	2256
12	Total-Alkalinity	mg/L	256.1	280.7	263.9	294.4	319.7	404.7	135.7
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	1.1	0.82	0.96	0.9	5.2	BDL(<0.1)	0.52
15	Nitrate as N	mg/L	2.5	3	3.6	5.5	4.5	2	1.9
16	Ammonia as N	mg/L	41.9	40.8	42.6	23.9	26.1	48.3	18
17	TKN	mg/L	49.3	48.4	50.3	31.3	33.5	55.2	25.3
18	Boron	mg/L	0.52	0.47	0.51	0.38	0.34	0.22	0.16
19	Chloride	mg/L	2691.8	2239.7	3496.8	1961.9	1980.2	1699.8	2216
20	Sulphate	mg/L	923	951.5	892	1134	1189	1136	725.4
21	Phosphate	mg/L	1.1	0.25	0.34	1.3	1.8	3	0.34
22	Sodium	mg/L	1225.5	885	1230	1315	1340	1009.7	725.3
23	Potassium	mg/L	50	28.1	37.8	24.6	30	59.3	55.2
24	Calcium	mg/L	847.7	808.9	956.7	334.3	346	266.5	792.6
25	Magnesium	mg/L	153.1	73.1	97.3	196.1	193.3	184.7	67.7
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	0.243	0.175	0.284	0.184	0.219	0.191	0.166
28	Copper	mg/L	0.134	0.063	0.074	BDL(<0.05)	BDL(<0.05)	0.146	0.139
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	0.154	0.121	0.119	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	0.099	0.056	0.12	0.048	0.076	0.065	0.068
32	Zinc	mg/L	0.717	0.2	0.222	0.169	0.218	0.15	0.132
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	2.836	1.16	2.083	0.681	0.758	1.243	2.556
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyriphos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	>1600	>1600	>1600			>1600	>1601
51	Fecal Coliform	MPN Index/100 ml	1600	1600	1600			1600	1600
52	Fecal streptococci	MPN Index/100 ml	500	900	900			900	500

13. At Outlet of GHCL, Bhilad, State Gujarat

S. No.	Parameter	Unit	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20
Basic Parameter									
1	Temperature	°C	31	29	31	31	31	31	30
2	pH		8.03	7.56	7.45	7.61	7.9	8.06	7.83
3	Conductivity	µs/cm	3308	1905	3290	2340	1910	2350	3220
4	Dissolve Oxygen	mg/L	2.2	2.9	2.4	3.9	4.1	3.8	3.7
5	BOD	mg/L	44	36	38	30	16	6	20
6	COD	mg/L	228.7	210.3	167.7	142.5	142.3	52.2	161.1
7	TDS	mg/L	2196	1262	2198	1560	1248	1562	2112
8	TFS	mg/L	1456	846	1482	1022	842	1098	1408
9	TSS	mg/L	88	86	16	36	54	40	104
10	Turbidity	NTU	5	5	5	1	1	1	5
11	Hardness	mg/L	291	194	381.9	261.9	279.4	199.5	249.6
12	Total-Alkalinity	mg/L	788	458	390.8	182.7	197.9	362.1	668.3
13	P-Alkalinity	mg/L	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)	BDL(<4.0)
Inorganic									
14	Fluoride	mg/L	0.36	0.45	0.52	0.44	0.59	BDL(<0.1)	0.78
15	Nitrate as N	mg/L	0.2	0.4	0.6	1.6	3.1	4.5	0.8
16	Ammonia as N	mg/L	9.9	3.9	4.5	2.3	2.3	4.2	29.3
17	TKN	mg/L	16.7	10.3	11.9	7.9	9.1	11.3	36.6
18	Boron	mg/L	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
19	Chloride	mg/L	430.9	179.7	582.8	358.8	377.2	281.7	315.9
20	Sulphate	mg/L	215	234.8	412	189	213.4	345.5	340.6
21	Phosphate	mg/L	1.1	BDL(<0.1)	BDL(<0.1)	BDL(<0.1)	0.29	3.3	5
22	Sodium	mg/L	542.6	305.5	668.7	261.5	282.2	449.5	585.2
23	Potassium	mg/L	41.1	6.7	9.2	12.5	24	37.8	43.6
24	Calcium	mg/L	62.2	58.7	64.8	59.1	63.8	45.7	53.9
25	Magnesium	mg/L	33	11.8	53.5	27.8	29.2	20.8	28
Heavy Metals									
26	Arsenic	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
27	Nickel	mg/L	0.029	BDL(<0.02)	0.056	0.047	0.055	BDL(<0.02)	0.06
28	Copper	mg/L	0.057	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	0.061
29	Mercury	mg/L	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)	BDL(<0.001)
30	Chromium	mg/L	0.098	0.053	0.081	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)
31	Cadmium	mg/L	0.006	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	0.019	BDL(<0.003)	BDL(<0.003)
32	Zinc	mg/L	0.538	BDL(<0.05)	0.056	BDL(<0.05)	BDL(<0.05)	BDL(<0.05)	0.139
33	Lead	mg/L	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
34	Iron	mg/L	2.66	0.32	0.224	0.127	BDL(<0.1)	0.774	0.933
Pesticides									
35	Alpha BHC	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
36	Beta BHC	ppb	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)	BDL(<0.04)
37	Gamma BHC	ppb	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)
38	OP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
39	PP DDT	ppb	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
40	Alpha Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
41	Beta Endosulphan	ppb	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)	BDL(<0.4)
42	Dieldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
43	2-4 D	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
44	Aldrin	ppb	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)	BDL(<0.03)
45	Chloropyrifos	ppb	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)	BDL(<30.0)
46	Carboryl (Carbamate)	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
47	Methyl Parathin	ppb	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)	BDL(<0.3)
48	Anilophos	ppb	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
49	Malathian	ppb	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)	BDL(<190.0)
Biological Testing									
50	Total Coliform	MPN Index/100 ml	>1600	>1600	>1600			>1600	>1601
51	Fecal Coliform	MPN Index/100 ml	1600	1600	1600			1600	1600
52	Fecal streptococci	MPN Index/100 ml	900	900	900			140	900