

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
PRINCIPAL BENCH, NEW DELHI**

**ORIGINAL APPLICATION NO 622/2024**

**IN THE MATTER OF:**

VARUN GULATI

.....APPLICANT

VERSES

STATE OF HARYANA & ORS.

....RESPONDENTS

**INDEX**

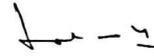
<b>S.NO.</b>	<b>PARTICULARS</b>	<b>PAGE NO</b>
<b>1.</b>	Objections On The Behalf Of Respondent No.3 Haryana State Industrial And Infrastructure Development Corporation Ltd HSIIDC, Industrial Estate, Barhi	<b>3-19</b>
<b>2.</b>	<b>ANNEXURE R/1</b> Copy of work order dated 06.09.2023	<b>20-24</b>
<b>3.</b>	<b>ANNEXURE R/2</b> Copy of work order dated 12.12.2023	<b>25-28</b>
<b>4.</b>	<b>ANNEXURE R/3</b> The photographs regarding completion of DAF	<b>29-30</b>
<b>5.</b>	<b>ANNEXURE R/4</b> Latest test reports by M/s Shri Ram Institute for Industrial Research, Delhi.	<b>31-46</b>
<b>6.</b>	<b>ANNEXURE-R/5.</b> Copy of test reports of Drain NO.6 by M/s Shri Ram Institute For Industrial Research, Delhi.	<b>47-56</b>
<b>7.</b>	<b>ANNEXURE-R/6.</b> The latest test detailed reports of <b>10 MLD CETP</b> carried out by M/S Shri ram institute for industrial	<b>57-80</b>

	research.	
8.	<b>ANNEXURE R/7</b> Copy of the relevant pages of the Joint Committee report	81-95

**New Delhi**

**Dated 28.05.2025**

**Through**



**Filed by**

**Lokesh Sinhal,**

**Sr Addl Advocate General**

**State of Haryana.**

9814103725

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**OBJECTIONS ON THE BEHALF OF RESPONDENT No.3 HARYANA  
STATE INDUSTRIAL AND INFRASTRUCTURE DEVELOPMENT  
CORPORATION LTD HSIIDC, INDUSTRIAL ESTATE, BARHI**

MOST RESPECTFULLY SHOWETH:

That the above application is pending before the Hon'ble Tribunal and is fixed for hearing on dated 29.05.2025. That the present reply is being filed through Sh. Jasbir Singh, Sr Manager (Engg.) who is authorised & competent to file the same on behalf of the Answering Respondent.

1.1 It is submitted that the present total capacity of CETPs at HSIIDC I.E. Barhi is 26 MLD (16 MLD + 10 MLD).

1.2 That the 16 MLD CETP is operational since September, 2017 by the constructing agency, M/s Gharpure Engineering & construction pvt. Ltd. which is now (on 30.01.2025) amalgated with M/s BEIL Infrastructure Ltd., Operation and Maintenance for 120 months is included in the scope of constructing agency up to September 2027.

1.3 That the 10 MLD CETP is operational since March 2024. The planning, designing, construction, operation and maintenance of the said CETP

lies within the scope of the M/s Enviro Infra Engineering Pvt Ltd for a period of 5 years.

1.4 That further, as per the suggestion given by the HSPCB/RPMC committee during the meeting held on 14.06.2023 concerning the entire State of Haryana, it was discussed to prepare Draft Action Plan to remove deficiencies in the CETPs in the State of Haryana. In furtherance of the same, a meeting was held on 24.07.2023 with officials from HSPCB, RPMC, HSIIDC and representatives from the two O&M agencies namely M/S Gharpure Engineering & construction Pvt Ltd and Enviro Infra Engineering Pvt Ltd. Thereafter, the agency i.e M/s Gharpure Engineering & construction pvt. Ltd. has started planning/designing for up-gradation of 16 MLD CETP, INDUSTRIAL ESTATE, BARHI.

1.5 That in order to upgrade the 16 MLD CETP, the design of Dissolved Air Flotation (DAF)/ Oil and Grease Tank has been prepared by the constructing agency and same has been vetted from IIT, DELHI. The work order for construction of DAF has been issued by M/s Gharpure Engineering and Construction Pvt. Ltd. (O & M agency) to M/s Deftech Engineers Pvt. Ltd. vide order no. Barhi O & M /Mech./0175 dated 06-09-2023 for mechanical works with financial effect of Rs. 77.99 Lacs. Copy of work order dated 06.09.2023 is enclosed as ANNEXURE-R/1. Work Order for construction of civil structure (civil part) has been issued to M/s Sethy Infrastructure vide work order no. Barhi O & M/Civil/w/158/Amd-1 Dated 12.12.2023 with financial effect of Rs.72.71 lacs. Copy of work order dated 12.12.2023 is annexed as ANNEXURE-R/2.

1.6 That the construction of DAF has been completed and is operational since 18-12-2024. The photographs regarding completion of DAF are annexed as **ANNEXURE-R/3**. Further, other related work has also been

completed by the O&M agency such as replacement of diffuser membrane which have been procured from M/s SFC Environmental Technologies Pvt. Ltd. (Technology providing agency for 16 MLD CETP) vide work order no. Barhi O & M/mech./176 dated 16.09.2023 with financial effect of Rs. 47.81 Lacs. The diffuser membranes have been replaced from all SBR Basins (total 4 in no.). Further, the work of installation of new Inlet Mechanical Screen, Replacement of Filter media and other required maintenance has been undertaken by the O&M agency.

1.7 That the testing of samples of 16 MLD CETP I.E. BARHI is being done regularly by M/s Shri Ram Institute for Industrial Research, Delhi. The latest test reports by M/s Shri Ram Institute for Industrial Research, Delhi are attached as **ANNEXURE-R/4** for the kind consideration of Hon'ble Tribunal.

**The relevant details & reports of 16 MLD CETP are as under**

**Report No.0000367025 & 0000367026 dated 19/07/2024**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	550	28	30
2	COD	1040	140	250
3	Oil & Grease	8	Below detection limit	10
4	Iron as Fe	14	2.7	3.0
5	TSS	508	50	100

**Report No. 0000384338 & 0000384339 dated 28/01/2025**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	360	30	30
2	COD	720	160	250
3	Oil & Grease	17.6	4.4	10
4	Iron as Fe	8.8	1.7	3.0

5	TSS	360	29	100
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**Report No. 0000384782 & 0000384783 dated 01/02/2025**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	460	30	30
2	COD	900	168	250
3	Oil & Grease	15.6	3.6	10
4	Iron as Fe	4.9	1.8	3.0
5	TSS	332	28	100

**Report No. 0000386763 & 0000386807 dated 28/01/2025**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	359	29	30
2	COD	688	148	250
3	Oil & Grease	26	2	10
4	Iron as Fe	6.5	1	3.0
5	TSS	410	100	100

1.8 The testing of samples at **different locations of drain no 6** is also being done by M/s Shri Ram Institute For Industrial Research, Delhi. Copy of test reports of Drain NO.6 by M/s Shri Ram Institute For Industrial Research, Delhi are annexed as **ANNEXURE-R/5**.

The test results of **outlet of HSIIDC at drain no 6** report no 0000386369 dated 15.02.2025 is as under:-

Sr. No.	Parameter Name	Result Mg/l	Limit Mg/l as per the HSPCB
1	BOD	24	30

2	COD	120	250
3	TSS	30	100
4	Oil & Grease	2	10
5	Iron as Fe	0.8	3

The test results of **outlet of HSIIDC at drain no 6** Report no 000390175 dated 19.03.2025 is as under:-

Sr. No.	Parameter Name	Result Mg/l	Limit Mg/l as per the HSPCB
1	BOD	27	30
2	COD	140	250
3	TSS	48	100
4	Oil & Grease	Below detection limit	10
5	Iron as Fe	2.9	3

The test results of drain no 6 (**Location - Gannaur-Shahpur road – upstream to HSIIDC outlet**) report no 0000386700 dated 15.02.2025. is as under:-

Sr. No.	Parameter Name	Result Mg/l	Limit Mg/l as per the HSPCB
1	BOD	125	30
2	COD	240	250
3	TSS	154	100
4	Oil & Grease	4	10
5	Iron as Fe	0.7	3

The test results of drain no 6 (**Location- at bypass road near ITI chowk Sonipat – downstream to HSIIDC outlet**) report no 0000386687 dated 15.02.2025 is as under:-

Sr. No.	Parameter Name	Result Mg/l	Limit Mg/l as per the HSPCB
1	BOD	242	30
2	COD	480	250
3	TSS	260	100
4	Oil & Grease	30	10
5	Iron as Fe	5.3	3

The test results of drain no 6 (**Location- at crossing drain no 8 near paper mill colony Kundali – upstream to HSIIDC outlet**) report no 0000386668 dated 15.02.2025 is as under:-.

Sr. No.	Parameter Name	Result Mg/l	Limit Mg/l as per the HSPCB
1	BOD	114	30
2	COD	224	250
3	TSS	40	100
4	Oil & Grease	5	10
5	Iron as Fe	1.2	3

2. That the CETP plants of 16MLD + 10 MLD is sufficient to treat effluents from IE Barhi and it is submitted that there is no direct discharge of effluents into the drain no 6 or on the open land. It is important to mention here that the HSPCB has issued Consent to Operate to the industrial units for 14 MLD (approx.) of effluents. Whereas the capacity of CETP at I.E Barhi is 26 MLD. So, the CETP is not under capacity and there is no direct/ untreated discharge into drain no 6.

2.1 Further all the effluent coming either through sewer pipes or through storm water pipes is brought to Main Pumping Station (MPS) of 16 MLD and 10 MLD existing CETPs and only after treatment, the same is disposed off into the Drain no. 6. The HSPCB has issued consent to operate to the industrial units about 14 MLD (approx.). The effluent received at 16 MLD CETP and 10 MLD CETP is 12-14 MLD and 6-8 MLD (approx.), respectively is total 18 -20 MLD, whereas the capacity of CETP at I.E. Barhi is 26 MLD. So, the CETP is not under capacity and there is no direct/ untreated discharge into drain no 6.

2.2 It is submitted that as on date small quantity of effluent reaches in the storm water collecting tank which is sent to the MPS of existing 16 MLD CETP for treatment. The HSIIDC team has been deputed for checking the unauthorized sewerage/effluent connections regularly in

storm water drain and to remove/pluck. This exercise is likely to be completed by 30.06.2025.

**3. Inspection report of Joint Committee comprising of representative of Member Secretary, Central Pollution Control Board (CPCB) and representative of Member Secretary, HSPCB.**

**3.1 Major Key points from the report**

Allegations of Under-Capacity of CETP at I.E. Barhi and non-Compliance of Common Effluent Treatment Plants (CETPs) is denied as wrong. It has been wrongfully alleged that the CETPs are under capacity. However, the analysis and evidence from the Joint Committee Report assert that the CETPs are more than capable of handling the current effluent volumes. The allegations are baseless and do not consider the factual data.

3.2 The HSPCB has issued consent to operate to the industrial units in Barhi Industrial Estates about 14 MLD (approx.). The effluent received at 16 MLD CETP and 10 MLD CETP is 12-14 MLD and 6-8 MLD (approx.), respectively total 18 -20 MLD, whereas the capacity of CETP at I.E Barhi is 26 MLD. So, the CETP is not under capacity and there is no direct/ untreated discharge into drain no 6.

3.3 That the Joint inspection of CETPs (10 MLD & 16 MLD) set up in Barhi industrial Area, Sonipat was carried out by the joint inspection team on 18.07.2024. Composite sampling (24 hrs monitoring at 2 hrs interval) was carried out during July 18, 2024 (10:00 AM onwards) to July 19, 2024 (up to 09:00 AM) for performance evaluation of CETPs. The lab analysis of tests results is as under: -

**Laboratory analysis results of CETP Inlet and Outlet (10 MLD CETP, Barhi) sample taken by Joint committee**

S. no.	Parameter	CETP Inlet	Inlet standards prescribed by HSPCB	CET P Outlet	Discharge norms	Compliance status
1.	pH	7.5	6-9	8	6-9	Complying
2.	BOD (mg/L)	160	500	<b>33</b>	30	<b>Non Complying</b>
3.	COD (mg/L)	549	1400	104	250	Complying
4.	TSS (mg/L)	321	1500	75	100	Complying
5.	<b>TDS (mg/L)</b>	<b>2132</b>	<b>2100</b>	<b>2208</b>	<b>2100</b>	<b>Non-Complying</b>
6.	FDS (mg/L)	1612	2100	1688	2100	Complying
7.	NH3-N (mg/L)	2	-	2	50	Complying
8.	Oil & Grease (mg/L)	BDL	15	BDL	10	Complying
9.	Chloride (mg/L)	694	-	666	1000	Complying
10.	Phosphate	0.9	-	0.4	5	Complying
11.	NO3-N (mg/L)	6.8	-	6.7	10	Complying
12.	Sulphate (mg/L)	211	-	193	1000	Complying
13.	Boron (mg/L)	BDL	-	BDL	-	-
14.	Cr <sup>6+</sup> (mg/L)	BDL	-	BDL	0.1	Complying
15.	Antimony (mg/L)	0.084	-	0.083	-	-
16.	Arsenic (mg/L)	BDL	-	BDL	0.2	Complying
17.	Cadmium (mg/L)	BDL	-	BDL	0.05	Complying
18.	Chromium (mg/L)	0.266	-	0.03	-	-
19.	Cobalt (mg/L)	0.003	-	BDL	-	-
20.	Copper (mg/L)	0.062	-	0.119	3	Complying
21.	Iron (mg/L)	6.585	-	0.758	3	Complying
22.	Lead (mg/L)	0.065	-	BDL	0.1	Complying
23.	Manganese (mg/L)	0.88	-	0.248	2	Complying
24.	Nickel (mg/L)	0.138	-	0.028	3	Complying
25.	Selenium (mg/L)	BDL	-	BDL	0.05	Complying
26.	Vanadium (mg/L)	0.013	-	BDL	0.2	Complying
27.	Zinc (mg/L)	0.311	-	0.152	5	Complying
28.	Mercury	BDL	-	BDL	0.01	Complying

.	(µg/L)					
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In response to the above findings of the Joint Committee, it is submitted that the testing of **10 MLD CETP** has been carried out by M/S Shri ram institute for industrial research regularly and the latest test detailed reports is annexed as **ANNEXURE-R/6**.

**The relevant details and reports of 10 MLD CETP are as under:**

**4.1 Report No. 0000381782 & 000381783 dated 31/12/2024**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	634	12	30
2	COD	1200	76	250
3	Oil & Grease	42	BDL	10
4	Iron as Fe	16.1	0.18	3.0
5	TSS	348	8	100

**4.2 Report No. 0000384340 & 0000384341 dated 28/01/2025**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	441	25	30
2	COD	832	148	250
3	Oil & Grease	16	2	10
4	Iron as Fe	0.2	0.7	3.0
5	TSS	480	40	100

**4.3 Report No. 0000384731 & 0000384733 dated 01/02/2025**

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	503	28	30
2	COD	1040	128	250
3	Oil & Grease	14	0.8	10
4	Iron as Fe	10.7	1.9	3.0
5	TSS	480	10	100

## 4.4 Report No. 0000387466 &amp; 0000387467 dated 15/02/2025

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	290	10	30
2	COD	580	56	250
3	Oil & Grease	8.8	BDL	10
4	Iron as Fe	6.6	1.7	3.0
5	TSS	364	30	100

## 4.5 Report No. 0000387916 &amp; 0000387918 dated 01/03/2025

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	407	13	30
2	COD	784	72	250
3	Oil & Grease	39	BDL	10
4	Iron as Fe	4.5	1.2	3.0
5	TSS	324	5	100

## 4.6 Report No. 0000390178 &amp; 0000390179 dated 19/03/2025

Sr. No.	Parameter Name	Result Mg/l at Inlet	Result Mg/l at Outlet	Limit Mg/l as per the HSPCB
1	BOD	410	14	30
2	COD	820	72	250
3	Oil & Grease	12	0.8	10
4	Iron as Fe	2.8	2.5	3.0
5	TSS	560	27	100

## 4. Laboratory analysis results of CETP Inlet and Outlet (16 MLD CETP, Barhi) sample taken by Joint committee

S. no.	Parameter	CETP Inlet	Inlet standards prescribed by HSPCB	CETP Outlet	Discharge norms	Compliance status
1.	pH	7.3	6-9	7.8	6-9	Complying
2.	BOD (mg/L)	210	500	94	30	Non-complying

3.	COD (mg/L)	616	1400	213	250	Complying
4.	TSS (mg/L)	<b>1852</b>	1500	88	100	Complying
5.	TDS (mg/L)	1780	2100	1948	-	Complying
6.	FDS (mg/L)	1336	2100	1432	2100	Complying
7.	NH <sub>3</sub> -N (mg/L)	10	-	10	50	Complying
8.	Oil & Grease (mg/L)	BDL	15	BDL	10	Complying
9.	Chloride (mg/L)	476	-	542	1000	Complying
10.	Phosphate	0.8	-	0.3	5	Complying
11.	NO <sub>3</sub> -N (mg/L)	7.9	-	8.3	10	Complying
12.	Sulphate (mg/L)	223	-	214	1000	Complying
13.	Boron (mg/L)	BDL	-	BDL	-	Complying
14.	Cr <sup>6+</sup> (mg/L)	BDL	-	BDL	0.1	Complying
15.	Antimony (mg/L)	0.131	-	0.064	-	Complying
16.	Arsenic (mg/L)	BDL	-	BDL	0.2	Complying
17.	Cadmium (mg/L)	BDL	-	BDL	0.05	Complying
18.	Chromium (mg/L)	0.466	-	0.141	-	Complying
19.	Cobalt (mg/L)	0.002	-	BDL	-	Complying
20.	Copper (mg/L)	0.048	-	0.018	3	Complying
21.	Iron (mg/L)	6.455	-	2.763	3	Complying
22.	Lead (mg/L)	0.192	-	0.012	0.1	Complying
23.	Manganese (mg/L)	0.956	-	0.742	2	Complying
24.	Nickel (mg/L)	0.07	-	0.047	3	Complying
25.	Selenium (mg/L)	BDL	-	BDL	0.05	Complying
26.	Vanadium (mg/L)	0.016	-	0.009	0.2	Complying
27.	Zinc (mg/L)	0.21	-	0.132	5	Complying
28.	Mercury (µg/L)	BDL	-	BDL	0.01	Complying

In response to this it is submitted that the analysis reports shows that only 1 parameter i.e., Biological oxygen demand (BOD) is more than the prescribed limit. It is important to mention here that the sample has been taken by the Joint Committee before up-gradation work of 16 MLD CETP. As of now, the plant has been upgraded and the parameters are more improved. And the sample analysis report from

the M/S Shri Ram Institute for Industrial Research has been already been stated above.

5. Response to the specific findings related to the non-meeting of parameters and also to the recommendations etc.

**a) Diluted effluent of BOD as 160 mg/l at inlet of 10 MLD CETP and BOD as 210 mg/l at inlet of 16 MLD CETP.**

With respect to the finding that the diluted effluent of BOD as 160 mg/l at inlet and BOD as 210 mg/l at inlet of 16 MLD CETP indicates that the diluted effluent is being fed into CETP, it is submitted that on the day of inspection the industrial units ran their PETP more efficiently which has caused the BOD in lower side at inlet of CETP. And the Answering Respondent has no role in the dilution of effluent at Inlet of CETP.

**b) TDS of 2208 mg/l at the outlet of 10 MLD CETP**

It is submitted that the same is because of chemical dosing.

**c) Efficiency of treatment Unit is lower than the desired removal efficiency of 90% at 10 MLD CETP.**

With respect to the finding that the efficiency of treatment Unit is lower than the desired removal efficiency of 90%, it is submitted that the as per the Joint Committee report itself, the BOD at outlet is only slightly higher and further substantive reduction of COD and TSS suggest that the Treatment plant is working efficiently. It is also pertinent to mention here that as per regular monitoring and testing get done by answering respondent through Shri Ram

Institute as mentioned in preceding paragraphs, all parameters are within prescribed limits. Hence, it is incorrect to say that Efficiency of treatment Unit is lower than the desired removal efficiency of 90% at 10 MLD CETP.

**d) Recycling of treated effluent**

With respect to recycling of treated effluent, it is submitted that recirculation pipeline network has already been laid in phase III AND in phase 1 and Phase 2 Tender was floated but only one Bidder qualified. SO, the competent Authority directed for re-tender and revision of Scheme for laying of pipeline for re-circulation of treated water in Ph-I & Ph-II is under process.

**e) Provision of designated shaded place for storage of dried sludge at both CETP.**

With respect to the provision of designated shaded place for storage of dried sludge, it is submitted that the same is under process and would be completed before the start of rainy season.

**f) Higher TSS at inlet of 16 MLD CETP**

With respect to the higher TDS at inlet of 16 MLD CETP, it is submitted that same had been released by the industrial units who are duty bound to meet the inlet standards prescribed by the HSPCB.

**g) BOD as 94 mg/l (against norms of 30 mg/l) at 16 MLD CETP.**

With respect to the finding of BOD as 94 mg/l (against norms of 30 mg/l), it is submitted that as per regular monitoring and testing got done by answering respondent through Shri Ram Institute as

mentioned in preceding paragraphs, all parameters are within prescribed limits.

**h) Flow meter at the line discharging storm water into pumping station of CETPs.**

With respect to the recommendation of flow meter at the line discharging storm water into pumping station of CETPs, it is submitted that the same is under process and would be installed within 2 weeks.

6. It is submitted that the 16 MLD and 10 MLD CETP are being operated by the operating agency efficiently and the daily basis logbooks have been maintained by the agencies. The logbook of inlet and outlet daily flow, logbook of chemical consumption, logbook of power consumption, logbook of diesel genset, logbook of sludge, in-house test reports are available at the CETP Plant site and it can be placed on record as and when required by this Hon'ble Tribunal.

**7. Allegations of untreated effluent disposed of into drain no 6:-**

The detailed analysis provided in the Joint Committee Report from **pages 256 to 263** identifies that the primary pollution concerns within Drain No. 6 do not originate from the CETP's of the HSIIDC Barhi. The report specifically notes that the levels of BOD and COD decrease significantly where the treated effluent from the **CETPs at Barhi mixes into Drain No. 6 at D6-upstream of HSIIDC outlet in drain no. 6, at**

**sampling points D7-outlet of HSIIDC in drain no. 6, D8-downstream from HSIIDC outlet indicating effective treatment and dilution.** The subsequent increase in pollution levels downstream, specifically from D9 onwards into Sonipat city. Copy of relevant pages of joint committee report are annexed as **ANNEXURE-R/7.**

***Pollution Source Mapping of Drain No. 6 (as table given above) is as follows:*** The report categorically divides Drain No. 6 into five stretches to assess pollution sources accurately. The focus is particularly on Stretch 2, which spans 22 km and includes the Barhi CETP outlet (D7). The Joint Committee's findings significantly negate the allegations that the industrial discharge from HSIIDC CETP's Barhi Industrial Estate pollutes Drain No. 6. Instead, the data support that CETP Barhi is effectively reducing contaminants. Copy of relevant pages of joint committee report are already annexed as ANNEXURE R/7.

- 8.** That the Answering Respondent remains committed to environmental sustainability, regulatory compliance, and responsible industrial operations and prays for a just and fair assessment of its compliance status.
- 9.** The Answering Respondent further reserves its right to file additional pleadings or affidavits, if necessary, in response to any subsequent developments in the present proceedings.

In view of the above it is humbly prayed before the Hon'ble Tribunal that the present Original Application with respect to Answering Respondent be dismissed.

28.05.2025  
Delhi



Jasbir Singh  
Senior Manager (Engg.)  
H..S.I.I.D.C Industrial Estate Barhi,  
District Sonapat, Haryana

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO 622/2024

IN THE MATTER OF:

VARUN GULATI .....APPLICANT

VERSES

STATE OF HARYANA & ORS. ....RESPONDENTS

**AFFIDAVIT**

I, Jasbir Singh S/o Ombir Singh aged about 47 years posted as Senior Manager (Engg.) at H..S.I.I.D.C Industrial Estate Barhi, District Sonipat, Haryana, presently at New Delhi, do hereby solemnly affirm and declare as under:

1. That I am well conversant with the facts and circumstances of the case in my aforesaid official capacity, therefore, I am competent to swear this affidavit.
2. That I have read the contents of accompanying objections which has been drafted under my instructions.

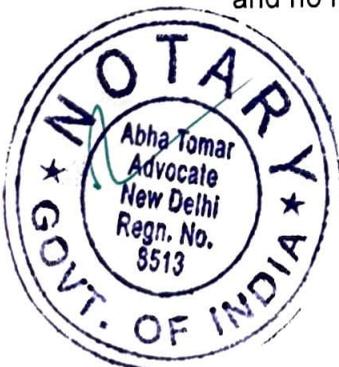
*[Signature]*  
DEPONENT

*[Signature]*  
I certify the deponent/Executant has signed in my presence

VERIFICATION

28 MAY 2025

Verified at ..... on ..... day May, 2025 that the contents of above affidavit are true and correct to my knowledge and on the basis of information derived from the Official record which I believe to be true and no material fact has been concealed therein.



Certified that the foregoing statement was declared on solemn affirmation before me which has been read over to the deponent who has admitted

*[Signature]*  
DEPONENT

It is correct ..... Notary DELHI

28 MAY 2025

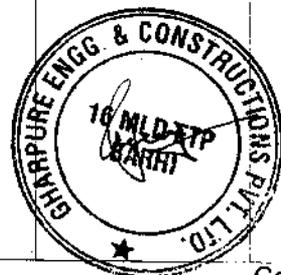
4216

**GHARPURE ENGINEERING & CONSTRUCTIONS PVT LTD**

C/O 16 MLD HSIDC CETP, PHASE III,  
GANANUR, SONEPAT - 131101, HARYANA  
COMPANY PAN NO: AABCG3506F, GST NO: 06AABCG3506F1Z4

<b>Delivery Address</b> GHARPURE ENGINEERING & CONSTRUCTIONS PVT LTD 16 MLD, CETP - HSIIDC, BARHI, PHASE - III, NEAR GANNAUR CITY, DELHI - CHANDIGARH HIGHWAY SONIPAT-131001, HARYANA	<b>Order No</b> ETP BARHI O & M\Mech\0175	<b>Date</b> 6-Sep-23
	<b>Order Valid Till</b>	<b>Mode/Terms of payment</b>
	<b>Quotation Ref</b>	<b>Other Ref</b>
	<b>Dispatched Through</b> By Road	<b>Destination</b> 16 MLD, CETP, BARHI
<b>Supplier</b> DAFTECH ENGINEERS PVT LTD - BARHI O&M VILLAGE SAIDPURA, BARWALA ROAD, INDUSTRIAL PARK, BLOCK B, DERABASSI, SAS NAGAR, PUNJAB GSTIN: 03AABCD3323M1ZZ <b>Kind Attn : SHAJU PETER - 9814127804</b>	<b>Terms &amp; Conditions</b>	

S.No.	Description of Item	Quantity	Rate	Amount
1	<b>Mechanical Equipments</b> FTC 657 Basic unit in PU-coated MS with Performance Guarantee of Parameter Reduction Given in Your Quotation No: FTC 657/2664 Dated: 24-Feb-2023 & Your Email Dated: 8th & 18th Aug 2023. Guaranted Parameter at Outlet:- TSS - 100ppm, O&G - 10ppm	1.0000 Nos	34,30,000.00	34,30,000.00
2	<b>Accessories (Set)</b> Accessories for DAF System 1] High Pressure Pump with Motor (Rs.3,40,000) 2] Poly Dosing Pump with Motor (Rs.2,45,000) 3] Dosing Pump for Coagulant (Rs.2,45,000) 4] Dosing Tanks for 2 Nos (Rs. 2,80,000/-) 5] Agitators 2 Nos (Rs. 5,40,000/-) 6] Compressor (Rs. 1,40,000/-) 7] Supply & Installation of Pipeline Including Valves (Rs.4,20,000/-) 8] Support Structure, Walkway, Ladder Etc. (Rs. 3,70,000/-) 9] Electrical Panel ( Rs.6,00,000/-) (However GECPL Reserves the Right to Purchase Accessories (Sr.No.2) Directly From Manufacturer) Balance Scope of Supply & Work - As Per Your Quotation No: FTC 657/2664 Dated: 24-Feb-2023 and	1.0 Sets	31,80,000.00	31,80,000.00



*Shaju Peter*  
06/09/23

**GHARPURE ENGINEERING & CONSTRUCTIONS PVT LTD**

C/O 16 MLD HSIDC CETP, PHASE III,  
GANANUR, SONEPAT - 131101, HARYANA  
COMPANY PAN NO: AABCG3506F, GST NO: 06AABCG3506F1Z4

**Delivery Address**

GHARPURE ENGINEERING & CONSTRUCTIONS PVT LTD  
16 MLD, CETP - HSIIDC, BARHI, PHASE - III,  
NEAR GANNAUR CITY, DELHI - CHANDIGARH HIGHWAY  
SONIPAT-131001, HARYANA

**Order No**

ETP BARHI O &amp; M\Mech\0175

**Date**

6-Sep-23

**Order Valid Till****Mode/Terms of payment****Quotation Ref****Other Ref****Dispatched Through**

By Road

**Destination**

16 MLD, CETP, BARHI

**Supplier**

DAFTECH ENGINEERS PVT LTD - BARHI O&M  
VILLAGE SAIDPURA, BARWALA ROAD,  
INDUSTRIAL PARK, BLOCK B, DERABASSI,  
SAS NAGAR, PUNJAB  
GSTIN: 03AABCD3323M1ZZ

**Terms & Conditions**Kind Attn : **SHAJU PETER - 9814127804**

S.No.	Description of Item	Quantity	Rate	Amount
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Subsequent Mails &amp; Discussions.

Remark: GST applicable @ 18%

**Sub Total****66,10,000.00****IGST CREDIT (INPUT) HARYANA****11,89,800.00**

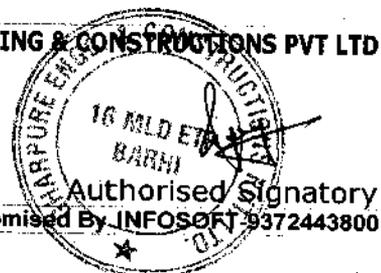
Indian Rupees Seventy Seven Lakh Ninety Nine Thousand Eight Hundred Only

**₹ 77,99,800.00**

GHARPURE ENGINEERING &amp; CONSTRUCTIONS PVT LTD

This is Computer Generated Order

Tally.ERP9 Customised By INFOSOFT 9372443800

**SUBJECT TO PUNE JURISDICTION**

**01. Scope of Work:**

Design, Manufacturing, Testing, Transportation, Supply & Supervision of Installation & Commissioning of DAF Unit (Type Circular) & its accessories specified in our requirement.

**02. Price Schedule:**

Basic Value: Rs. 66,10,000.00 (Rs. Sixty Six Lakh Ten Thousand Only) GST applicable @ 18% extra.

Erection charges @ Rs. 90,000/--+ GST will be paid extra. (Including Labour, Tools -Tackles & Machineries)

**03. Price Basis:**

Prices once quoted shall remain firm within the validity or any extension thereof for placement of order, till complete execution of the order, without any escalation/increase for any reason, whatsoever, unless specifically provided for in the enquiry or PO. Goods shall be delivered on ' F.O.R. Destination' basis to the site.

**04. Transit Insurance:**

Included in GECPL scope.

**05. Price Validity:**

Firm Till completion of this Order.

**06. Transportation:**

Transportation charges extra at actual to GECPL scope.

**07. Delivery :**

1] You shall Supply within 90 days from the date of PO & Approved documents. You shall submit detailed drawings, datasheet, QAP and technical writeup within 7 days for our Client/Consultant approval. You shall provide necessary technical support while getting approval from Client/Consultant(IIT DELHI or IIT ROORKEE).

2] Supervision for Erection, Testing & Commissioning to be completed within 10 days from site clearance.

**08. Payment Terms:**

1] 35% Advance Payment against order acceptance. If accessories bought by GECPL directly, advance will be paid only for DAF.

2] 65% Payment against submission of Proforma Invoice after inspection.

**9. Guarantee :**

The warranty shall be for a period of 18 months from the date of Supply or 12 Months from the date of commissioning whichever is earlier. If the delivery is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or mutually agreed period. DAF will have to be designed to achieve a TSS and Oil & Grease reduced 92% to 95% of Inlet Parameters and you shall stand guarantee for the above parameters.

**10. Inspection:**

Dispatch clearance would be given after the successful inspection by the GECPL/Client/ third party as per approved QAP. In case of waiver of inspection M/s Daftech Engineers Pvt Ltd to take prior permission before dispatches.

**11. Other Terms:**

1] For any genuine concerns related to Fraud, Bribery, Collusive Practice, Coercion and Conflict of Interest please refer our whistle blower policy uploaded on the company website [www.beil.co.in](http://www.beil.co.in).

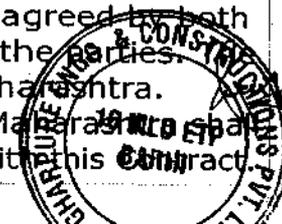
1] Subject to force majeure conditions, penalty shall be 0.5% per week of delay or part thereof, subject a maximum of 5% of undelivered portion. However, 15 days grace period will be allowed before applying LD.

3] Arbitration: In the event of any dispute or difference of opinion between the PARTIES arising out of or in connection with this CONTRACT or with regard to performance of any obligation hereunder by either PARTY, the PARTIES hereto shall use their best efforts to settle such dispute or difference of opinion amicably by mutual negotiations.

Should agreement not be reached, either PARTY may forthwith give to the other notice in WRITING of the existing of such question, dispute, or difference, and the same shall be referred to Dispute resolving committee of three members. One to be nominated by GECPL, One by CONTRACTOR and third member shall be a person of repute as agreed to by both parties. The recommendation of the committee shall be binding to both the parties. The venue of all such dispute resolve committee meetings shall be Pune Maharashtra.

4] Subject to the arbitration in terms of Clause above, the Courts at Pune Maharashtra shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

*[Handwritten Signature]*



- 4219
- 5] Supervision of erection & commissioning included in your scope.
  - 6] This order is subject to approval of documents (GAD, QAP and Technical datasheet) from our client.
  - 7] If the shipment is not lifted due to reasons beyond our control, no damages/losses incurred by you would be payable.
  - 8] Material Test Certificates & Internal Test Reports to be sent to us along with material, Material will be Tested at site & any rejections shall be replaced free of cost.
  - 9] You shall have to Provide e-invoice having IRN. You shall file GSTR-1 on due date & your invoice should reflect in GST Portal Report GSTR-2A, failing which GST Amount will be withheld from your payment or shall be recovered from you.
  - 10] Kindly submit acceptance of PO within 3 days otherwise it will be deemed accepted.

For Gharpure Engg. & Const. Pvt. Ltd.

  
Authorised Signatory

**Terms of Order No: ETP BARHI O&M\Mech\0175 Date:6-Sep-2023**

**Integrity compliance undertaking:**

Integrity compliance undertaking & Exhibits shall have to be submitted by Business partners /prospective seller / Vendor / Supplier / Service Provider / Consultant. It is a tool to ensure that activities and transactions between the company and its business partners / Suppliers / Vendors / bidders / contractors / Service providers are handled in a fair, transparent and corruption free manner. A compliance officer (CO) have been appointed to oversee implementation of Integrity compliance undertaking in company.

**Anti-Bribery and Corruption Policy:**

The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to company's Anti Bribery and Corruption policy displayed on company website and shall immediately bring to the notice of company Management about any fraud or suspected fraud as soon as it comes to their notice.

**Commitment by Company:**

Company commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. Company will during the tender process treat all bidder(s) in a transparent and fair manner, and with equity.

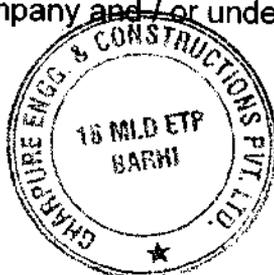
**Commitment by bidder / Supplier / Contractor:**

The bidder / supplier / contractor / Service Provider commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal code, 1860 or any other law in force in India.

The bidder / supplier / contractor / Service Provider will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by company.

The bidder / supplier / contractor / Service Provider will perform / execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business / money / reputation to company.

If any bidder / supplier / contractor / Service Provider during pre-tendering / tendering / post tendering / award / execution / post execution stage indulges in mal-practices, cheating, bribery, fraud or / and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then action may be taken against such bidder / supplier / contractor / Service Provider as decided by company and / or under applicable legal provisions.



For Gharpure Engg. & Consts. Pvt Ltd

Authorized Signatory

**GHARPURE ENGINEERING & CONSTRUCTIONS PVT LTD**

C/O 16 MLD HSIDC CETP, PHASE III,  
GANANUR, SONPAT - 131101, HARYANA  
COMPANY PAN NO: AABCG3506F, GST NO: 06AABCG3506F1Z4

**Delivery Address**

GHARPURE ENGINEERING & CONSTRUCTIONS PVT LTD  
16 MLD, CETP - HSIIDC, BARHI, PHASE - III,  
NEAR GANNAUR CITY, DELHI - CHANDIGARH HIGHWAY  
HARYANA

**Order No**

ETP BARHI O &amp; M\Civil\W\158

**Date**

12-Dec-23

**Order Valid Till****Mode/Terms of payment****Quotation Ref****Other Ref****Dispatched Through****Destination**

16 MLD CETP Barhi

Terms &amp; Conditions :

**Supplier**

SETHY INFRASTRUCTURE - BARHI O&M  
PLOT NO. 69/B, A-BLOCK,  
SECTOR - 18, KAMOTHE,  
NAVI MUMBAI  
GSTIN 27CBWPS1488R1Z6

Kind Attn :

S.No.	Description of Item	Quantity	Rate	Amount
1	Excavation Work (Cum)	475.00 CUM	190.00	90,250.00
2	Soiling Work (Cum) Stone Soiling Work	55.00 CUM	3,325.00	1,82,875.00
3	PCC Work (Cum) RMC PCC (M-15)	25.00 CUM	6,650.00	1,66,250.00
4	Steel Reinforcement Work (MT)	23.000 MT	83,980.01	19,31,540.23
5	Shuttering Work	745.000 Sq.Mtr	831.25	6,19,281.25
6	RCC Work (Cum) RCC Work M-25	215.00 CUM	7,695.00	16,54,425.00
7	Filling Work (Cum) Back Filling Work	180.00 CUM	95.00	17,100.00
8	Rendering Work (Sq.Mtr)	670.000 Sq.Mtr	85.50	57,285.00
9	Painting Work (Sqm) Painting (External Paint)	670.000 Sq.Mtr	109.25	73,197.50
10	Painting Work (Rmt) Hand Railing (GI) Including Painting	150.00 RMT	498.75	74,812.50

Remark: GST @18%

<b>Sub Total</b>	<b>48,67,016.48</b>
<b>IGST CREDIT (INPUT) HARYANA</b>	8,76,062.96
<b>ROUND OFF-CIVIL</b>	0.56

Indian Rupees Fifty Seven Lakh Forty Three Thousand Eighty Only

₹ 57,43,080.00



GHARPURE ENGINEERING &amp; CONSTRUCTIONS PVT LTD

Authorised Signatory

Tally.ERP9 Customised By INFOSOFT-9372443800

This is Computer Generated Order

**SUBJECT TO PUNE JURISDICTION**

Accepted w/o

For SETHY INFRASTRUCTURE

Proprietor

**Terms of Order No.: ETP BARHI O & M\Civil\W\158**

**01. Scope of Work:**

Civil Construction Work Of DAF Tank at 16 MLD CETP Barhi site.

**02. PriceSchedule:**

Basic Value: Rs. 48,67,016.00 (Rs. Forty Eight Lakhs Sixty Seven Thousand And Sixteen Only.) GST @18% Extra.

**03. PriceBasis:**

Prices shall be firm during the contract period and no escalation what so ever shall levied on the above price for site.

**04. Transit Insurance:**

N.A.

**05. Price Validity:**

Firm Till completion of this Order.

**06. Transportation:**

Included in above Rates.

**07. Delivery :**

Within 8-10 Weeks.

**08. Payment Terms:**

- 1] Rs. 10 Lakhs Advance along with Order Acceptance
- 2] Payment Will be Release within 7 Days After submission of RA Bills duly certified by engineer incharge.
- 3] 5% retention will be on hold in each RA Bill & Which will be released after successful completion of work duly certified engineer incharge.

**9. Guarantee :**

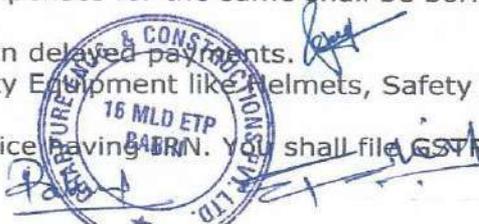
Workmanship valid up to minimum of 12 months from commissioning. The Contractor shall rectify the defects if any at his own costs & expenses within reasonable time.

**10. Inspection:**

Material/workmanship will be inspected at site. Any rejections shall have to be replaced by you free of cost.

**11. OtherTerms:**

- 1] For any genuine concerns related to Fraud, Bribery, Collusive Practice, Coercion and Conflict of Interest please refer our whistle blower policy uploaded on the company website www.beil.co.in.
- 2] Subject to force majeure conditions, penalty shall be 0.5% of the total order value per week of delay or part thereof, subject a maximum of 5% of the total order value. Total order value above shall be item wise, lot wise order value. Any deviation based on specific requirement shall be specified separately.
- 3] Arbitration: In the event of any dispute or difference of opinion between the PARTIES arising out of or in connection with this CONTRACT or with regard to performance of any obligation hereunder by either PARTY, the PARTIES hereto shall use their best efforts to settle such dispute or difference of opinion amicably by mutual negotiations. Should agreement not be reached, either PARTY may forthwith give to the other notice in WRITING of the existing of such question, dispute, or difference, and the same shall be referred to Dispute resolving committee of three members. One to be nominated by GECPL, One by CONTRACTOR and third member shall be a person of repute as agreed by both parties. The recommendation of the committee shall be binding to both the parties. The venue of all such dispute resolve committee meetings shall be Pune Maharashtra.
- 4] Subject to the arbitration in terms of Clause above, the Courts at Pune Maharashtra shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.
- 5] TDS will be deducted as per Govt. Norms.
- 6] Qty. may vary as per scope of site & certified by Engineer In-charge.
- 7] Absolute Safety has to be observed by the agency to ensure no minor or major accident happens at site. In any event of such accident M/s Sethy Infrastructure shall be held responsible and whatever expenses for the same shall be borne by M/s Sethy Infrastructure only.
- 8] No interest charges will be paid on delayed payments.
- 9] Contractor to use their own Safety Equipment like Helmets, Safety belts at height, Safety goggles.
- 10] You shall have to Provide e-invoice having BARRN. You shall file GSTR-1 on due date &



Accepted w/o

For SETHY INFRASTRUCTURE

P. Sethy

Proprietor

your invoice should reflect in GST Portal Report GSTR-2A, failing which GST Amount will be withheld from your payment or shall be recovered from you.

- 11] Kindly submit acceptance of WO within 3 days otherwise it will be deemed accepted.
- 12] Please mention SAC code of work for above Work Order No. & Date in Your Invoice.



For Gharpure Engg. & Constructions Pvt. Ltd.

*[Handwritten Signature]*  
Authorised Signatory

Accepted w/o

For SETHY INFRASTRUCTURE

*P. SETHY*

Proprietor

Terms of Order : ETP BARHI O& M\Civil\W\158      Date: 12 DEC -2023

**Integrity compliance undertaking:**

Integrity compliance undertaking & Exhibits shall have to be submitted by Business partners /prospective seller / Vendor / Supplier / Service Provider / Consultant. It is a tool to ensure that activities and transactions between the company and its business partners / Suppliers / Vendors / bidders / contractors / Service providers are handled in a fair, transparent and corruption free manner. A compliance officer (CO) have been appointed to oversee implementation of Integrity compliance undertaking in company.

**Anti-Bribery and Corruption Policy:**

The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to company's Anti Bribery and Corruption policy displayed on company website and shall immediately bring to the notice of company Management about any fraud or suspected fraud as soon as it comes to their notice.

**Commitment by Company:**

Company commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. Company will during the tender process treat all bidder(s) in a transparent and fair manner, and with equity.

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The bidder / supplier / contractor / Service Provider commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal code, 1860 or any other law in force in India.

The bidder / supplier / contractor / Service Provider will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by company.

The bidder / supplier / contractor / Service Provider will perform / execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business / money / reputation to company.

If any bidder / supplier / contractor / Service Provider during pre-tendering / tendering / post tendering / award / execution / post execution stage indulges in mal-practices, cheating, bribery, fraud or / and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then action may be taken against such bidder / supplier / contractor / Service Provider as decided by company and / or under applicable legal provisions.



For Gharpure Enng. & Consts. Pvt. Ltd

*[Handwritten signature]*

Authorized Signatory

*Accepted w/o*

**For SETHY INFRASTRUCTURE**

*P. Setty*

**Proprietor**

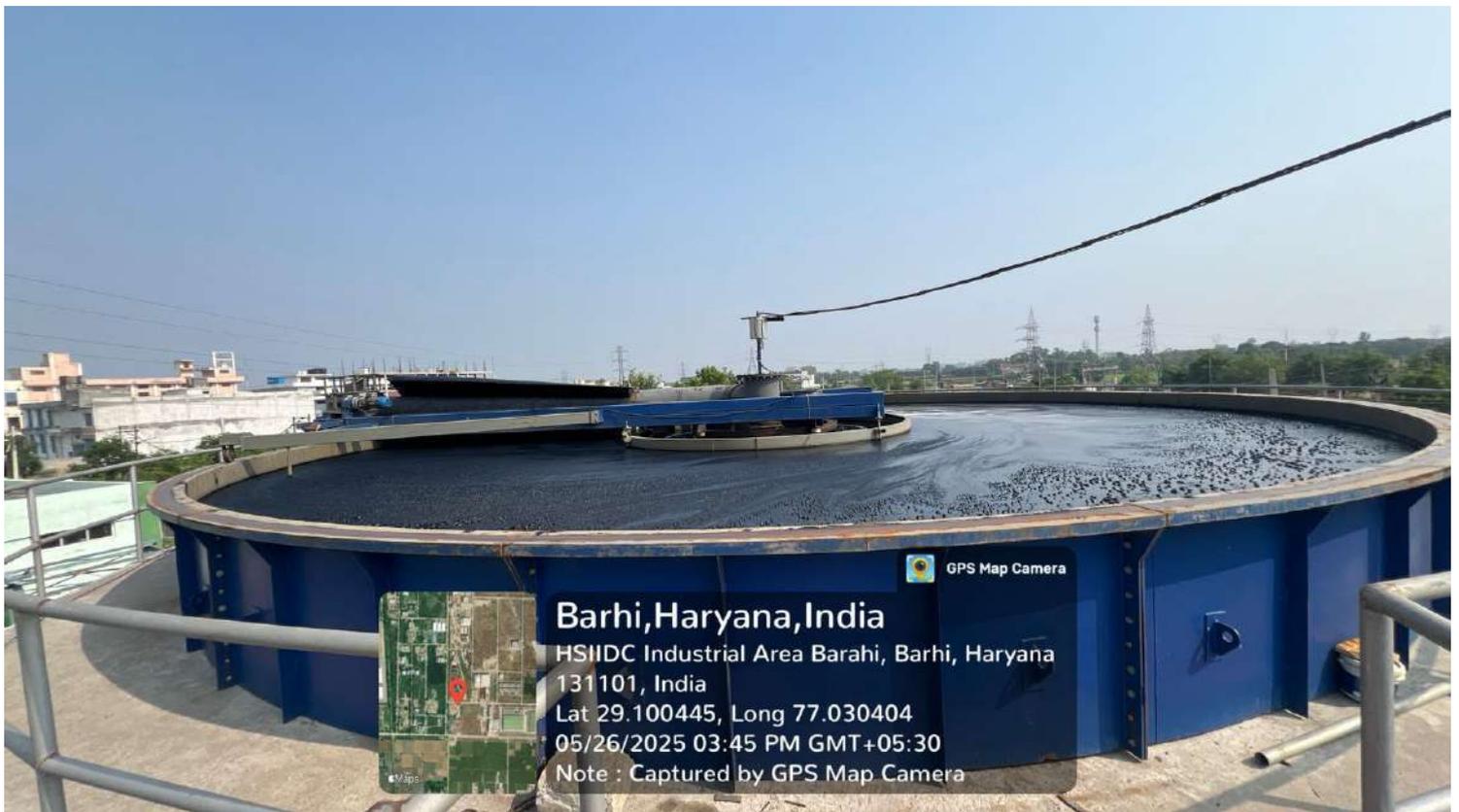


 GPS Map Camera



**Barhi, Haryana, India**  
HSI IDC Industrial Area Barahi, Barhi, Haryana  
131101, India  
Lat 29.100659, Long 77.030801  
05/26/2025 03:41 PM GMT+05:30  
Note : Captured by GPS Map Camera

Apple Maps





# SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH

(A unit of Shriram Scientific and Industrial Research Foundation)

19, University Road, Delhi - 110007 (India)  
An ISO - 9001, 14001 & 45001 Certified Institute

Website : www.shriraminstitute.org  
E-mail id : customercare@shriraminstitute.org  
qad@shriraminstitute.org

ULR NO. : TC54442400009318F

TEST REPORT

NO : C1/0000367025

6142/918



Issued To :  
Client Code : (SONTOIH0089)  
H.S.I.L.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 03-08-2024  
Job No : 2407-1-411-1702  
Booking No : RG2425/1/3543  
Booking Date : 20-07-2024  
Customer Ref No. : HSIA:B:2024:286  
Customer Ref Dt. : 19-07-2024  
Location : Laboratory

**Sample Description:** Job No. 2407-1-411-1702

ONE COMPOSITE SAMPLE OF CETP WATER, MARKED AS "INLET, DATED 18.07.2024", LOCATION :- 16 MLD, CETP AT INDL. ESTATE BARHI, PHASE-III, WAS RECEIVED.

Note: The sampling was not carried out by Shriram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by party.

**Discipline : Chemical**  
**Group: Pollution & Environment**

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Colour	Blackish	Visual
3	Odour	Disagreeable	IS: 3025 Pt-5-2018
4	Total Suspended Solids, mg/l	508	IS: 3025 Pt-17-2022
5	Total Dissolved Solids, mg/l	1720	IS: 3025 Pt-16 - 2023
6	Oil & Grease, mg/l	8	APHA 24th Ed., 5520
7	Sulphate (as SO <sub>4</sub> ), mg/l	646	IS: 3025 Pt-24/Sec-1-2019
8	Sulphide (as S), mg/l	3.4	IS: 3025 Pt-29-1986, RA 2019
9	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	0.1	IS: 3025 Pt-43/Sec-1-2022
10	Chemical Oxygen Demand, mg/l	1040	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l	550	APHA 24th Ed., 5210
12	Iron (as Fe), mg/l	14	IS: 3025 Pt-2-2019

Reviewed and Authorized by  
EMPLOYEE CODE: (4105)



# SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH

(A unit of Shriram Scientific and Industrial Research Foundation)

19, University Road, Delhi - 110007 (India)  
An ISO - 9001, 14001 & 45001 Certified Institute

Website : [www.shriraminstitute.org](http://www.shriraminstitute.org)  
E-mail id : [customercare@shriraminstitute.org](mailto:customercare@shriraminstitute.org)  
[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC54442400009318F

## TEST REPORT

NO : C1/0000367025



13	Nickel (as Ni), mg/l	0.2	IS: 3025 Pt-2-2019
14	Total Chromium (as Cr), mg/l	0.6	IS: 3025 Pt-2-2019
15	MPN Fecal Coliform/100 ml	3300000 Organisms	IS: 1622:1981, RA-2019
Date of Receipt		: 20.07.2024	
Date of Start		: 20.07.2024	
Date of Completion		: 05.08.2024	

—End of Report —

*Aath*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

GC-01(Rev-05)

Note: The results relate only to the items tested / calibrated above.  
Scanned copies/photocopies or any other copies should be authenticated by reference to the original report.

Phone : 91-11-35200445, 35200499      Fax : 91-11-35200455  
See overleaf for terms & conditions



# SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH

(A unit of Shriram Scientific and Industrial Research Foundation)

19, University Road, Delhi – 110007 (India)  
An ISO - 9001, 14001 & 45001 Certified Institute

Website : www.shriraminstitute.org  
E-mail id : customercare@shriraminstitute.org  
qad@shriraminstitute.org

ULR NO. : TC54442400009319F

TEST REPORT

NO : C1/0000367026

Issued To :

Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 03-08-2024  
Job No : 2407-1-411-1703  
Booking No : RG2425/1/3543  
Booking Date : 20-07-2024  
Customer Ref No. : HSIA:B:2024:286  
Customer Ref Dt. : 19-07-2024  
Location : Laboratory



## Sample Description:

Job No. 2407-1-411-1703

ONE COMPOSITE SAMPLE OF CETP WATER, MARKED AS "OUTLET, DATED 18.07.2024",  
LOCATION :- 16 MLD, CETP AT INDL. ESTATE BARHI, PHASE-III, WAS RECEIVED.

Note: The sampling was not carried out by Shriram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group: Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.7	IS: 3025 Pt-11-2022
2	Colour	Reddish	Visual
3	Odour	Agreeable	IS: 3025 Pt-5-2018
4	Total Suspended Solids, mg/l	50	IS: 3025 Pt-17-2022
5	Total Dissolved Solids, mg/l	1856	IS: 3025 Pt-16 - 2023
6	Oil & Grease, mg/l (Detection Limit: 0.5 mg/l)	Below Detection Limit	APHA 24th Ed., 5520
7	Sulphate (as SO <sub>4</sub> ), mg/l	428	IS: 3025 Pt-24/Sec-1-2019
8	Sulphide (as S), mg/l (Detection Limit: 0.1 mg/l)	Below Detection Limit	IS: 3025 Pt-29-1986, RA 2019
9	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43/Sec-1-2022
10	Chemical Oxygen Demand, mg/l	140	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l	28	APHA 24th Ed., 5210
12	Iron (as Fe), mg/l	2.7	IS: 3025 Pt-2-2019

Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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Note: The results relate only to the items tested / calibrated above.  
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Fax : 91-11-35200455

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544424000009319F

## TEST REPORT

NO : C1/0000367026



13	Nickel (as Ni), mg/l	0.08	IS: 3025 Pt-2-2019
14	Total Chromium (as Cr), mg/l	0.1	IS: 3025 Pt-2-2019
15	MPN Fecal Coliform/100 ml	2600 Organisms	IS: 1622:1981, RA-2019
Date of Receipt : 20.07.2024			
Date of Start : 20.07.2024			
Date of Completion : 05.08.2024			

—End of Report—

# INDUSTRIAL RESEARCH

*Jaiti*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

GC-01(Rev-05)  
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gad@shriraminstitute.org

58  
②  
14342

ULR NO. : TC54442500001728F

TEST REPORT

NO : C1/0000384339

**Issued To :**

Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (ENGG)

Date of issue : 10-02-2025  
Job No : 2501-1-411-2402  
Booking No : RG2425/1/8517  
Booking Date : 29-01-2025  
Customer Ref No. : HSENGG:B:2025:789  
Customer Ref Dt. : 28-01-2025  
Location : Laboratory



**Sample Description:**

**Job No. 2501-1-411-2402**

One Grab tape sealed Sample of Water, Drawn by our representative on 28.01.2025, from Location : 16 MLD CEPT at Indl. Estate, HSIIDC, Barhi, Phase - III, Sonipat (H.R.) , Marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

**Discipline : Chemical**

**Group : Pollution & Environment**

SNo.	Tests	Results	Protocol
1	pH	7.8	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Light Yellow	Visual
4	Electrical Conductivity, $\mu$ S/cm	3888	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	2488	IS:3025 Pt-16-2023
6	Sulphate (as SO <sub>4</sub> ), mg/l	222	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.09	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	1.7	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.1	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	29	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	160	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	30	APHA 24th Ed., 5210

*Aarti*  
Reviewed and Authorized by  
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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000001728F

## TEST REPORT

NO : C1/0000384339



13	Sulphide (as S), mg/l	0.8	IS: 3025 Pt-29-2022
14	Oil & Grease, mg/l	4.4	APHA 24th Ed., 5520
15	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
16	MPN Fecal Coliform per 100 ml	221 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

- a. During Sampling : 16°C
- b. During transportation: 4-6 °C
- Date of Receipt : 29.01.2025
- Date of Start : 29.01.2025
- Date of Completion : 10.02.2025

—End of Report—

*Chitra*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC544425000001727F

TEST REPORT

NO : C1/0000384338

Issued To :

Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (ENGG)

Date of issue : 10-02-2025  
Job No : 2501-1-411-2401  
Booking No : RG2425/1/8517  
Booking Date : 29-01-2025  
Customer Ref No. : HSENGG-B:2025:789  
Customer Ref Dt. : 28-01-2025  
Location : Laboratory



**Sample Description:**

Job No. 2501-1-411-2401

One Grab tape sealed Sample of Water, Drawn by our representative on 28.01.2025, from Location : 16 MLD CEPT at Indl. Estate, HSIIDC, Barhi, Phase - III, Sonipat (H.R.) , Marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

**Discipline : Chemical**

**Group : Pollution & Environment**

SNo.	Tests	Results	Protocol
1	pH	7.2	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Electrical Conductivity, $\mu\text{S}/\text{cm}$	3730	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	2462	IS:3025 Pt-16-2023
6	Sulphate (as $\text{SO}_4$ ), mg/l	256	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.1	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	8.8	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.3	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	360	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	720	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	360	APHA 24th Ed., 5210

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ULR NO. : TC544425000001727F

TEST REPORT

NO : C1/0000384338



13	Sulphide (as S), mg/l	5.8	IS: 3025 Pt-29-2022
14	Oil & Grease, mg/l	17.6	APHA 24th Ed., 5520
15	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	0.1	IS: 3025 Pt-43 (Sec - 1) -2022
16	MPN Fecal Coliform per 100 ml	390000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions :-

a. During Sampling : 16°C

b. During transportation: 4-6 °C

Date of Receipt : 29.01.2025

Date of Start : 29.01.2025

Date of Completion : 10.02.2025

—End of Report—

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ULR NO. : TC544425000001955F

## TEST REPORT

NO : C1/0000384782

14646

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 13-02-2025  
Job No : 2502-1-411-180  
Booking No : RG2425/1/8694  
Booking Date : 03-02-2025  
Customer Ref No : NO HSIA:B:2025:SP:111  
Customer Ref Dt : 01-02-2025  
Location : Laboratory



### Sample Description:

Job No. 2502-1-411-180

One Grab tape sealed Sample of CETP Water drawn by our representative on 01.02.2025, from 16 MLD, CETP at Industrial. Estate Barhi, Phase-III, Marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.7	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Total Dissolved Solids, mg/l	2159	IS:3025 Pt-16-2023
5	Sulphate (as SO <sub>4</sub> ), mg/l	329	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.1	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	4.9	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.2	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	332	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	900	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	460	APHA 24th Ed., 5210

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ULR NO. : TC544425000001955F

## TEST REPORT

NO : C1/0000384782



12	Sulphide (as S), mg/l	5.6	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l	15.6	APHA 24th Ed., 5520
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	0.3	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	390000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 22°C

b. During transportation: 4-6 °C

Date of Receipt : 03.02.2025

Date of Start : 03.02.2025

Date of Completion : 13.02.2025

—End of Report —

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2/2

*Domnh*  
*Aarti*  
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ULR NO. : TC54442500001956F

TEST REPORT

NO : C1/0000384783

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.L.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 13-02-2025  
Job No : 2502-1-411-181  
Booking No : RG2425/1/8694  
Booking Date : 03-02-2025  
Customer Ref No : NO HSIA.B.2025.SP.111  
Customer Ref Dt : 01-02-2025  
Location : Laboratory



**Sample Description:**

**Job No. 2502-1-411-181**

One Grab tape sealed Sample of CETP Water drawn by our representative on 01.02.2025, from 16 MLD, CETP at Industrial. Estate Barhi, Phase-III, Marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

**Discipline : Chemical**

**Group : Pollution & Environment**

SNo.	Tests	Results	Protocol
1	pH	7.5	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Light Yellow	Visual
4	Total Dissolved Solids, mg/l	2744	IS:3025 Pt-16-2023
5	Sulphate (as SO <sub>4</sub> ), mg/l	356	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.08	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	1.8	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.1	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	28	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	168	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	30	APHA 24th Ed., 5210

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ULR NO. : TC544425000001956F

## TEST REPORT

NO : C1/0000384783



12	Sulphide (as S), mg/l	0.8	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l	3.6	APHA 24th Ed., 5520
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	320 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions :-

a. During Sampling : 22°C

b. During transportation: 4-6 °C

Date of Receipt : 03.02.2025

Date of Start : 03.02.2025

Date of Completion : 13.02.2025

—End of Report —

*Dr. Anshu* *Aarti*  
Reviewed and Authorized by  
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ULR NO. : TC544425000002956F

TEST REPORT

NO : C1/0000386763 <sup>15755</sup>

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 04-03-2025  
Job No : 2502-1-411-1231  
Booking No : RG2425/1/9120  
Booking Date : 17-02-2025  
Customer Ref No. : NO:HSIA:B:2025:858  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory



**Sample Description: Job No. 2502-1-411-1231**

One Grab tape sealed Sample of CETP Water drawn by our representative on 15.02.2025, from 16 MLD CETP, Industrial Estate, Barhi, marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.8	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Total Dissolved Solids, mg/l	2100	IS:3025 Pt-16-2023
5	Sulphate (as SO <sub>4</sub> ), mg/l	629	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.1	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	6.5	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.3	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	410	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	688	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	359	APHA 24th Ed., 5210

*Haiti*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC544425000002956F

## TEST REPORT

NO : C1/0000386763



12	Sulphide (as S), mg/l	1.2	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l	26	APHA 24th Ed., 5520
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	0.02	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	1400000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

- a. During Sampling : 24°C
- b. During transportation: 4-6 °C

Date of Receipt : 17.02.2025  
 Date of Start : 17.02.2025  
 Date of Completion : 04.03.2025

—End of Report—

*Devi* *Auth*  
 Reviewed and Authorized by  
 EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC544425000002993F

TEST REPORT

NO : C1/0000386807

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 04-03-2025  
Job No : 2502-1-411-1232  
Booking No : RG2425/1/9120  
Booking Date : 17-02-2025  
Customer Ref No. : NO:HSIA:B:2025:858  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory



### Sample Description:

Job No. 2502-1-411-1232

One Grab tape sealed Sample of CETP Water drawn by our representative on 15.02.2025, from 16 MLD CETP, Industrial Estate, Barhi, marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.7	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Brown	Visual
4	Total Dissolved Solids, mg/l	2350	IS:3025 Pt-16-2023
5	Sulphate (as SO <sub>4</sub> ), mg/l	472	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.07	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	1.0	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.08	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	100	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	148	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	29	APHA 24th Ed., 5210

Reviewed and Authorized by  
EMPLOYEE CODE: (4105)

GC-01(Rev-05)

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Note: The results relate only to the items tested / calibrated above.  
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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000002993F

## TEST REPORT

NO : C1/0000386807



12 Sulphide (as S), mg/l	0.1	IS: 3025 Pt-29-2022
13 Oil & Grease, mg/l	2	APHA 24th Ed., 5520
14 Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit:- 0.01mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
15 MPN Fecal Coliform per 100 ml	330 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 24°C

b. During transportation: 4-6 °C

Date of Receipt : 17.02.2025

Date of Start : 17.02.2025

Date of Completion : 04.03.2025

—End of Report—

*[Signature]* Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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gad@shriraminstitute.org

ULR NO. : TC54442500002751F

TEST REPORT

NO : C1/0000386369

15522

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 28-02-2025  
Job No : 2502-1-411-1226  
Booking No : RG2425/1/9117  
Booking Date : 17-02-2025  
Customer Ref No : NO.HSIA.B:2025:856  
Customer Ref Dt : 15-02-2025  
Location : Laboratory



### Sample Description:

Job No. 2502-1-411-1226

One Grab tape sealed Sample of Water drawn by our representative on 15.02.2025, from Final Outlet at Drain No.6, HSIIDC Limited, Industrial Estate Barhi, Sonipat, was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.5	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Brown	Visual
4	Total Dissolved Solids, mg/l	2410	IS:3025 Pt-16-2023
5	Sulphate (as SO <sub>4</sub> ), mg/l	789	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.06	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	0.8	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.05	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	30	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	120	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	24	APHA 24th Ed., 5210

GC-01(Rev-05)

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000002751F

## TEST REPORT

NO : C1/0000386369



12	Sulphide (as S), mg/l (Detection Limit: 0.1 mg/l)	Below Detection Limit	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l	2	APHA 24th Ed., 5520
14	Phenolic Compound (as C6H5OH), mg/l (Detection Limit: 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	1100 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

- a. During Sampling : 24°C
- b. During transportation: 4-6 °C
- Date of Receipt : 17.02.2025
- Date of Start : 17.02.2025
- Date of Completion : 28.02.2025

—End of Report —

*Quilo* *Aarti*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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qad@shriraminstitute.org

ULR NO. : TC544425000004698F

TEST REPORT

NO : C1/0000390175

+ B11  
186

## Issued To :

Client Code : (SONT01H0089)

H.S.I.L.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Kind Attn: --SR MANAGER (ENGG)

Date of issue : 04-04-2025  
Job No : 2503-1-411-1848  
Booking No : RG2425/1/10459  
Booking Date : 20-03-2025  
Customer Ref No. : HSENGG:B:2025:961  
Customer Ref Dt. : 19-03-2025  
Location : Laboratory**Sample Description:****Job No. 2503-1-411-1848**

One Grab tape sealed Sample of Drain Water drawn by our representative on 19.03.2025, from Drain No.6, CETP Outlet, Near Village Bhogipur, Tehsil - Gannaur, Dist.- Sonipat (HR), In presence of HSIIDC officials, O & M agency Sub.- Testing of sample of Drain No. 6 at INDL Estate Barhi, was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

**Discipline : Chemical****Group : Pollution & Environment**

<u>SNo.</u>	<u>Tests</u>	<u>Results</u>	<u>Protocol</u>
1	pH	7.6	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Light brown	Visual
4	Total Dissolved Solids, mg/l	2744	IS:3025 Pt-16-2023
5	Electrical conductivity, $\mu$ S/cm at 25°C	4012	IS: 3025 Pt-14-2019
6	Sulphate (as SO <sub>4</sub> ), mg/l	1157	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.06	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	2.9	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.1	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	48	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	140	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	27	APHA 24th Ed., 5210

*Aarti*  
Reviewed and Authorized by  
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Note: The results relate only to the items tested / calibrated above.  
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ULR NO. : TC544425000004698F

TEST REPORT

NO : C1/0000390175



## SHRIRAM INSTITUTE

13	Sulphide (as S), mg/l (Detection Limit: 0.1 mg/l)	Below Detection Limit	IS: 3025 Pt-29-2022
14	Oil & Grease, mg/l (Detection Limit: 0.5 mg/l)	Below Detection Limit	APHA 24th Ed., 5520
15	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
16	MPN Fecal Coliform per 100 ml	940 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 26°C

b. During transportation: 4-6 °C

Date of Receipt : 20.03.2025

Date of Start : 20.03.2025

Date of Completion : 04.04.2025

—End of Report —

*Donny* *Aarti*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC54442500002903F

## TEST REPORT

NO : C1/0000386700

+ R111  
16/12



Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (IA)

Date of issue : 03-03-2025  
Job No : 2502-1-411-1244  
Booking No : RG2425/1/9124  
Booking Date : 17-02-2025  
Customer Ref No. : NO.HSIA:B:2025:857  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory

### Sample Description: Job No. 2502-1-411-1244

One Grab tape sealed Sample of Water drawn by our representative on 15.02.2025, from Drain No.6, at Gannaur Shahpur Road (Near Village Gannaur), HSIIDC Limited, Industrial Estate Barhi, Sonipat, Sub : Testing of samples at different location of drain no. 6 at district Sonipat was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical  
Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.1	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Greay	Visual
4	Total Dissolved Solids, mg/l	1430	IS:3025 Pt-16-2023
5	Sulphate (as SO4), mg/l	112	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.02	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	0.7	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.05	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	154	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	240	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	125	APHA 24th Ed., 5210

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ULR NO. : TC54442500002903F

TEST REPORT

NO : C1/0000386700



12	Sulphide (as S), mg/l	0.3	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l	4	APHA 24th Ed., 5520
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	0.01	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	390000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions :-

- a. During Sampling : 24°C
- b. During transportation: 4-6 °C

Date of Receipt : 17.02.2025  
 Date of Start : 17.02.2025  
 Date of Completion : 03.03.2025

—End of Report —

*[Signature]*  
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ULR NO. : TC54442500002893F

TEST REPORT

NO : C1/0000386687

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (IA)

Date of issue : 11-03-2025  
Job No : 2502-1-411-1245  
Booking No : RG2425/1/9124  
Booking Date : 17-02-2025  
Customer Ref No. : NO:HSIA:B:2025:857  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory



### Sample Description:

Job No. 2502-1-411-1245

One Grab tape sealed Sample of Water drawn by our representative on 15.02.2025, from Drain No.6, at Bypass Road, near ITI Chowk, Sonipat, HSIIDC Limited, Industrial Estate Barhi, Sonipat, Subject: Testing of samples at different location of drain no. 6 at district Sonipat was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.7	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Brown	Visual
4	Total Dissolved Solids, mg/l	1048	IS:3025 Pt-16-2023
5	Sulphate (as SO4), mg/l	181	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.06	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	5.3	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.09	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	260	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	480	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	242	APHA 24th Ed., 5210
12	Sulphide (as S), mg/l	0.3	IS: 3025 Pt-29-2022

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Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC544425000002893F

TEST REPORT

NO : C1/0000386687



13	Oil & Grease, mg/l	30	APHA 24th Ed., 5520
14	Phenolic Compound (as C6H5OH), mg/l	0.02	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	700000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 24°C

b. During transportation: 4-6 °C

Date of Receipt : 17.02.2025

Date of Start : 17.02.2025

Date of Completion : 03.03.2025

—End of Report —

*[Signature]*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC544425000002889F

TEST REPORT

NO : C1/0000386668

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (IA)

Date of issue : 03-03-2025  
Job No : 2502-1-411-1246  
Booking No : RG2425/1/9124  
Booking Date : 17-02-2025  
Customer Ref No. : NO.HSIA:B:2025:857  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory



**Sample Description:** Job No. 2502-1-411-1246

One Grab tape sealed Sample of Water drawn by our representative on 15.02.2025, from Drain No.6, at Crossing Drain No. 8, Near Paper Mill Colony Kundli, HSIIDC Limited, Industrial Estate Barhi, Sonipat, Subject: Testing of samples at different location of drain no. 6 at district Sonipat was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

**Discipline : Chemical**  
**Group : Pollution & Environment**

<u>SNo.</u>	<u>Tests</u>	<u>Results</u>	<u>Protocol</u>
1	pH	7.2	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Greyish	Visual
4	Total Dissolved Solids, mg/l	2519	IS:3025 Pt-16-2023
5	Sulphate (as SO4), mg/l	728	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.07	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	1.2	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.08	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	40	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	224	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	114	APHA 24th Ed., 5210

*Jati*  
Reviewed and Authorized by  
EMPLOYEE CODE:( 4105 )

GC-01(Rev-05)

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ULR NO. : TC544425000002889F

TEST REPORT

NO : C1/0000386668



12	Sulphide (as S), mg/l	0.3	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l	5	APHA 24th Ed., 5520
14	Phenolic Compound (as C6H5OH), mg/l	0.03	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	260000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

- a. During Sampling : 24°C
- b. During transportation: 4-6 °C
- Date of Receipt : 17.02.2025
- Date of Start : 17.02.2025
- Date of Completion : 03.03.2025

—End of Report —

*Das*  
*Santi*  
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qad@shriraminstitute.org

ULR NO. : TC54442500000516F

TEST REPORT

NO : C1/0000381782

ANNEXURE R/6

Issued To :

Client Code : (SONT01H0089)

H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,

BARHI,

SONIPAT

HARYANA-131101

Kind Attn: --SR MANAGER (ENGG)

Date of issue : 16-01-2025  
Job No : 2501-1-411-492  
Booking No : RG2425/1/7811  
Booking Date : 06-01-2025  
Customer Ref No. : HSENGG:B:2024:714  
Customer Ref Dt. : 31-12-2024  
Location : Laboratory



## Sample Description:

Job No. 2501-1-411-492

One Tape Sealed Sample of Water, Location: 10 MLD CETP at Indl. Estate, Barhi, Phase-III, marked as "CETP Inlet, dt.30.12.2024" was received.

Note :- The sampling was not carried out by Shriram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.7	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Electrical Conductivity, $\mu\text{S}/\text{cm}$	3763	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	2544	IS:3025 Pt-16-2023
6	Sulphate (as $\text{SO}_4$ ), mg/l	479	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.1	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	16.1	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.4	IS: 3025 Pt-2-2019

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1/2

*Auth*  
Reviewed and Authorized by  
EMPLOYEE CODE:( 4105 )

Note: The results relate only to the items tested / calibrated above.  
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Phone : 91-11-35200445, 35200449

Fax : 91-11-35200455

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC54442500000516F

## TEST REPORT

NO : C1/0000381782



10	Total Suspended Solids, mg/l	348	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	1200	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	634	APHA 24th Ed., 5210
13	Oil & Grease, mg/l	42	APHA 24th Ed., 5520

Note: Remaining tests could not be carried out due to insufficient quantity of the Sample.

Date of Receipt : 06.01.2025  
Date of Start : 06.01.2025  
Date of Completion : 16.01.2025

—End of Report—

INDUSTRIAL RESEARCH

*Handwritten Signature*  
Reviewed and Authorized by  
EMPLOYEE CODE:( 4105 )

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NO : C1/0000381783

ULR NO. : TC54442500000517F

TEST REPORT



Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (ENGG)

Date of issue : 16-01-2025  
Job No : 2501-1-411-493  
Booking No : RG2425/1/7811  
Booking Date : 06-01-2025  
Customer Ref No. : HSENGG:B:2024:714  
Customer Ref Dt. : 31-12-2024  
Location : Laboratory

## Sample Description:

Job No. 2501-1-411-493

One Tape Sealed Sample of Water, Location: 10 MLD CETP at Indl. Estate, Barhi, Phase-III, marked as "CETP Outlet, dt.30.12.2024" was received.

Note :- The sampling was not carried out by Shriram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

<u>SNo.</u>	<u>Tests</u>	<u>Results</u>	<u>Protocol</u>
1	pH	6.7	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Reddish	Visual
4	Electrical Conductivity, $\mu$ S/cm	2487	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	1516	IS:3025 Pt-16-2023
6	Sulphate (as SO <sub>4</sub> ), mg/l	233	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.02	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	0.18	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.01	IS: 3025 Pt-2-2019

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EMPLOYEE CODE:( 4105 )

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Note: The results relate only to the items tested / calibrated above.  
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Fax : 91-11-35200455

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC54442500000517F

TEST REPORT

NO : C1/0000381783



TC-5444

10	Total Suspended Solids, mg/l	8	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	76	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	12	APHA 24th Ed., 5210
13	Oil & Grease, mg/l (detection Limit: 0.5mg/l)	BDL	APHA 24th Ed., 5520

BDL: Below Detection Limit

Note: Remaining tests could not be carried out due to insufficient quantity of the Sample.

Date of Receipt : 06.01.2025

Date of Start : 06.01.2025

Date of Completion : 16.01.2025

—End of Report—

  
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EMPLOYEE CODE: ( 4105 )

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Note: The results relate only to the items tested / calibrated above.  
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4.2

# RESEARCH

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00384341

ULR NO. : TC544425000001730F

## TEST REPORT



Issued To :  
Client Code : (SONT01H0089)  
H.S.I.L.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR MANAGER (ENGG)

Date of issue : 10-02-2025  
Job No : 2501-1-411-2411  
Booking No : RG2425/1/8522  
Booking Date : 29-01-2025  
Customer Ref No. : HSENGG:B:2025:790  
Customer Ref Dt. : 28-01-2025  
Location : Laboratory

### Sample Description:

Job No. 2501-1-411-2411

One Grab tape sealed Sample of Water, Drawn by our representative on 28.01.2025, from Location : 10 MLD CEPT at Indl. Estate, HSIIDC, Barhi, Phase - III, Sonipat (H.R.) , Marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.8	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Light Brown	Visual
4	Electrical Conductivity, $\mu$ S/cm	4271	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	2520	IS:3025 Pt-16-2023
6	Sulphate (as SO <sub>4</sub> ), mg/l	1017	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.1	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	0.7	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.08	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	40	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	148	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	25	APHA 24th Ed., 5210

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EMPLOYEE CODE: (4905)

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000001730F

TEST REPORT

NO : C1/0000384341



13 Sulphide (as S), mg/l	0.2
14 Oil & Grease, mg/l	2
16 MPN Fecal Coliform per 100 ml	172 Organisms

IS: 3025 Pt-29-2022  
APHA 24th Ed., 5520  
IS: 1622:1981, RA 2019

Note :- Remaning test will be reported later.

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions :-

- a. During Sampling : 16°C
- b. During transportation: 4-6 °C

Date of Receipt : 29.01.2025  
Date of Start : 29.01.2025  
Date of Completion : 10.02.2025

—End of Report—

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EMPLOYEE CODE:( 4105 )

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000001729F

TEST REPORT

NO : C1/0000384340

Issued To :

Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --,SR-MANAGER (ENGG)

Date of issue : 10-02-2025  
Job No : 2501-1-411-2410  
Booking No : RG2425/1/8522  
Booking Date : 29-01-2025  
Customer Ref No. : HSENGG:B:2025:790  
Customer Ref Dt. : 28-01-2025  
Location : Laboratory



### Sample Description:

Job No. 2501-1-411-2410

One Grab tape sealed Sample of Water, Drawn by our representative on 28.01.2025, from Location : 10 MLD CEPT at Indl. Estate, HSIIDC, Barhi, Phase - III, Sonipat (H.R.) , Marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.7	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Electrical Conductivity, $\mu\text{S}/\text{cm}$	3906	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	2460	IS:3025 Pt-16-2023
6	Sulphate (as $\text{SO}_4$ ), mg/l	433	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.2	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	8.6	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.2	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	480	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	832	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	441	APHA 24th Ed., 5210

*[Signature]*  
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EMPLOYEE CODE: ( 4105 )

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Note: The results relate only to the items tested / calibrated above.  
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ULR NO. : TC544425000001729F

TEST REPORT

NO : C1/0000384340



13 Sulphide (as S), mg/l	4	IS: 3025 Pt-29-2022
14 Oil & Grease, mg/l	16	APHA 24th Ed., 5520
16 MPN Fecal Coliform per 100 ml	940000 Organisms	IS: 1622:1981, RA-2019

Note :- Remaning test will be reported later.

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions :-

- a. During Sampling : 16°C
- b. During transportation: 4-6 °C

Date of Receipt : 29.01.2025  
 Date of Start : 29.01.2025  
 Date of Completion : 10.02.2025

—End of Report—

*Quita*  
*Anti*  
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9.3

ULR NO. : TC54442500001915F

TEST REPORT

NO : C1/0000384731

14607



Issued To :  
Client Code : (SONT01H0089)  
H.S.I.L.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 13-02-2025  
Job No : 2502-1-411-204  
Booking No : RG2425/1/8700  
Booking Date : 03-02-2025  
Customer Ref No. : NO:HSIA.B:2025:SP-11  
Customer Ref Dt. : 01-02-2025  
Location : Laboratory

### Sample Description: Job No. 2502-1-411-204

One Grab Tape Sealed Sample of Water drawn by our representative on 01.02.2025 from M/S 10 MLD, CETP at Indl. Estate Barhi, Phase-III, marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.8	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Phenolic Compounds (as C6H5OH), mg/l	0.08	IS: 3025 Pt-43/Sec-1-2022
5	Total Dissolved Solids, mg/l	2228	IS:3025 Pt-16-2023
6	Sulphate (as SO4), mg/l	782	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.3	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	10.7	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.6	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	480	IS: 3025 Pt-17-2022

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EMPLOYEE CODE:( 4105 )

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qad@shriraminstitute.org

ULR NO. : TC54442500001915F

## TEST REPORT

NO : C1/0000384731



11	Chemical Oxygen Demand, mg/l	1040	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	503	APHA 24th Ed., 5210
13	Oil & Grease, mg/l	14	APHA 24th Ed., 5520
14	Sulphide (as S), mg/l	8	IS: 3025 Pt -29-2022
15	MPN Fecal Coliform per 100 ml	2000000 Organisms	IS: 1622:1981, RA-2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

- a. During Sampling : 22.0 °C
- b. During transportation: 4-6 °C
- Date of Receipt : 03.02.2025
- Date of Start : 04.02.2025
- Date of Completion : 13.02.2025

—End of Report—

*[Signature]*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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ULR NO. : TC544425000001916F

TEST REPORT

NO : C1/0000384733

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 13-02-2025  
Job No : 2502-1-411-205  
Booking No : RG2425/1/8700  
Booking Date : 03-02-2025  
Customer Ref No. : NO:HSIA.B.2025:SP-11  
Customer Ref Dt. : 01-02-2025  
Location : Laboratory



### Sample Description:

Job No. 2502-1-411-205

One Grab Tape Sealed Sample of Water drawn by our representative on 01.02.2025 from M/S 10 MLD, CETP at Indl. Estate Barhi, Phase-III, marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.1	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Light Grey	Visual
4	Phenolic Compounds (as C6H5OH), mg/l (Detection Limit: 0.01 mg/l)	BDL	IS: 3025 Pt-43/Sec-1-2022
5	Total Dissolved Solids, mg/l	2700	IS:3025 Pt-16-2023
6	Sulphate (as SO4), mg/l	640	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.06	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	1.9	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.04	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	10	IS: 3025 Pt-17-2022

Reviewed and Authorized by  
EMPLOYEE CODE: (4105)

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Note: The results relate only to the items tested / calibrated above.  
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E-mail id : [customercare@shriraminstitute.org](mailto:customercare@shriraminstitute.org)  
[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000001916F

## TEST REPORT

NO : C1/0000384733



11	Chemical Oxygen Demand, mg/l	128	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	28	APHA 24th Ed., 5210
13	Oil & Grease, mg/l	0.8	APHA 24th Ed., 5520
14	Sulphide (as S), mg/l (Detection Limit: 0.1 mg/l)	BDL	IS: 3025 Pt -29-2022
15	MPN Fecal Coliform per 100 ml	260 Organisms	IS: 1622:1981, RA-2019

BDL: Below Detection Limit

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 22.0 °C

b. During transportation: 4-6 °C

Date of Receipt : 03.02.2025

Date of Start : 04.02.2025

Date of Completion : 13.02.2025

—End of Report—

Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

# SHRIRAM INSTITUTE FOR INDUSTRIAL RESEARCH

(A unit of Shriram Scientific and Industrial Research Foundation)

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Website : www.shriraminstitute.org  
E-mail id : customercare@shriraminstitute.org  
gad@shriraminstitute.org

ULR NO. : TC54442500003349F

## TEST REPORT

NO : C1/0000387467

16/13

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 10-03-2025  
Job No : 2502-1-411-1228  
Booking No : RG2425/1/9118  
Booking Date : 17-02-2025  
Customer Ref No. : NO:HSIA:B:2025:859  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory



### Sample Description:

Job No. 2502-1-411-1228

One Grab tape sealed Sample of CETP Water drawn by our representative on 15.02.2025, from 10 MLD, CETP at Industrial. Estate Barhi, Marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

S.No.	Tests	Results	Protocol
1	pH	6.7	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Reddish	Visual
4	Total Dissolved Solids, mg/l	3126	IS:3025 Pt-16-2023
5	Sulphate (as SO4), mg/l	533	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.05	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	1.7	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.03	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	30	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	56	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	10	APHA 24th Ed., 5210

*[Signature]*  
Reviewed and Authorized by  
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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC54442500003349F

## TEST REPORT

NO : C1/0000387467



12	Sulphide (as S), mg/l (Detection Limit: 0.1 mg/l)	Below Detection Limit	IS: 3025 Pt-29-2022
13	Oil & Grease, mg/l (Detection Limit: 0.5 mg/l)	Below Detection Limit	APHA 24th Ed., 5520
14	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
15	MPN Fecal Coliform per 100 ml	940 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

- a. During Sampling : 25°C
- b. During transportation: 4-6 °C

Date of Receipt : 17.02.2025  
 Date of Start : 17.02.2025  
 Date of Completion : 10.03.2025

—End of Report—

*Domini* *Arati*  
 Reviewed and Authorized by  
 EMPLOYEE CODE: ( 4105 )

GC-01(Rev.05)

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ULR NO. : TC544425000003348F

## TEST REPORT

NO : C1/0000387466



Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101

Date of issue : 10-03-2025  
Job No : 2502-1-411-1227  
Booking No : RG2425/1/9118  
Booking Date : 17-02-2025  
Customer Ref No. : NO:HSIA:B:2025:859  
Customer Ref Dt. : 15-02-2025  
Location : Laboratory

### Sample Description:

Job No. 2502-1-411-1227

One Grab tape sealed Sample of CETP Water drawn by our representative on 15.02.2025, from 10 MLD, CETP at Industrial. Estate Barhi, Marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	6.4	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Total Dissolved Solids, mg/l	2898	IS:3025 Pt-16-2023
5	Sulphate (as SO <sub>4</sub> ), mg/l	618	IS: 3025 Pt-24/Sec-1-2019
6	Nickel (as Ni), mg/l	0.2	IS: 3025 Pt-2-2019
7	Iron (as Fe), mg/l	6.6	IS: 3025 Pt-2-2019
8	Total Chromium (as Cr), mg/l	0.4	IS: 3025 Pt-2-2019
9	Total Suspended Solids, mg/l	364	IS: 3025 Pt-17-2022
10	Chemical Oxygen Demand, mg/l	580	IS: 3025 Pt-58-2023
11	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	290	APHA 24th Ed., 5210

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EMPLOYEE CODE:( 4105 )

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000003348F

## TEST REPORT

NO : C1/0000387466



12 Sulphide (as S), mg/l	4	IS: 3025 Pt-29-2022
13 Oil & Grease, mg/l	8.8	APHA 24th Ed., 5520
14 Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit: 0.01 mg/l)	0.02	IS: 3025 Pt-43 (Sec - 1) -2022
15 MPN Fecal Coliform per 100 ml	3300000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 25°C

b. During transportation: 4-6 °C

Date of Receipt : 17.02.2025

Date of Start : 17.02.2025

Date of Completion : 10.03.2025

—End of Report —

Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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E-mail id : customercare@shriraminstitute.org  
qad@shriraminstitute.org

ULR NO. : TC54442500003586F

## TEST REPORT

NO : C1/0000387916

SP 2  
16433

Issued To :

Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn. --,SR MANAGER (ENGG)

Date of issue : 17-03-2025  
Job No : 2503-1-411-210  
Booking No : RG2425/1/9757  
Booking Date : 03-03-2025  
Customer Ref No. : HSENGG:B:2025:899  
Customer Ref Dt. : 01-03-2025  
Location : Laboratory



### Sample Description:

Job No. 2503-1-411-210

One tape sealed Sample of CETP Water collected by SRI Staff on 01.03.2025 in presence of HSIIDC officials, O&M Agency & HSPCB Officials, Marked as "CETP Inlet", Location: 10 MLD CETP at Indl. Estate Barhi, Phase-III was received.

Note: The sampling was not carried out by Shriram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.1	IS: 3025 Pt-11-2022
2	Odour	Disagreeable	IS: 3025 Pt-5-2018
3	Colour	Blackish	Visual
4	Electrical Conductivity, $\mu\text{S}/\text{cm}$	3690	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	2692	IS:3025 Pt-16-2023
6	Sulphate (as $\text{SO}_4$ ), mg/l	518	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.3	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	4.5	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.5	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	324	IS: 3025 Pt-17-2022

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000003586F

TEST REPORT

NO : C1/0000387916



11	Chemical Oxygen Demand, mg/l	784	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	407	APHA 24th Ed., 5210
13	Sulphide (as S), mg/l	2.4	IS: 3025 Pt-29-2022
14	Oil & Grease, mg/l	39	APHA 24th Ed., 5520

Note: Phenolic Compounds and MPN Fecal Coliform tests could not be carried out due to insufficient quantity of sample.

Date of Receipt : 03.03.2025  
Date of Start : 03.03.2025  
Date of Completion : 17.03.2025

—End of Report—

Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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gad@shriraminstitute.org

ULR NO. : TC544425000003588F

TEST REPORT

NO : C1/0000387918

Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --SR MANAGER (ENGG)

Date of issue : 17-03-2025  
Job No : 2503-1-411-211  
Booking No : RG2425/1/9757  
Booking Date : 03-03-2025  
Customer Ref No. : HSENGG:B:2025:899  
Customer Ref Dt. : 01-03-2025  
Location : Laboratory



## Sample Description:

Job No. 2503-1-411-211

One tape sealed Sample of CETP Water collected by SRI Staff on 01.03.2025 in presence of HSIIDC officials, O&M Agency & HSPCB Officials, Marked as "CETP Outlet", Location: 10 MLD CETP at Indl. Estate Barhi, Phase-III was received.

Note: The sampling was not carried out by Shriram Institute for Industrial Research. The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

<u>SNo.</u>	<u>Tests</u>	<u>Results</u>	<u>Protocol</u>
1	pH	7.5	IS: 3025 Pt-11-2022
2	Odour	Agreeable	IS: 3025 Pt-5-2018
3	Colour	Light Brown	Visual
4	Electrical Conductivity, $\mu$ S/cm	2990	IS: 3025 Pt-14-2019
5	Total Dissolved Solids, mg/l	1996	IS:3025 Pt-16-2023
6	Sulphate (as SO <sub>4</sub> ), mg/l	455	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.09	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	1.2	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.07	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	5	IS: 3025 Pt-17-2022

*Jaiti*  
Reviewed and Authorized by  
EMPLOYEE CODE:( 4105 )

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000003588F

TEST REPORT

NO : C1/0000387918



11	Chemical Oxygen Demand, mg/l	72	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	13	APHA 24th Ed., 5210
13	Sulphide (as S), mg/l (Detection Limit: 0.1 mg/l)	Below Detection Limit	IS: 3025 Pt-29-2022
14	Oil & Grease, mg/l (Detection Limit: 0.5 mg/l)	Below Detection Limit	APHA 24th Ed., 5520

Note: Phenolic Compounds and MPN Fecal Coliform tests could not be carried out due to insufficient quantity of sample.

Date of Receipt : 03.03.2025

Date of Start : 03.03.2025

Date of Completion : 17.03.2025

—End of Report—

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qad@shriraminstitute.org

ULR NO. : TC54442500004700F

## TEST REPORT

NO : C1/0000390179

187  
514



Issued To :  
Client Code : (SONT01H0089)  
H.S.I.I.D.C LIMITED,  
INDUSTRIAL ESTATE,  
BARHI,  
SONIPAT  
HARYANA-131101  
Kind Attn: --SR MANAGER (ENGG)

Date of issue : 04-04-2025  
Job No : 2503-1-411-1831  
Booking No : RG2425/1/10456  
Booking Date : 20-03-2025  
Customer Ref No. : HSENGG:B:2025:959  
Customer Ref Dt. : 19-03-2025  
Location : Laboratory

### Sample Description: Job No. 2503-1-411-1831

One Grab tape sealed Sample of CETP Water, drawn by our representative on 19.03.2025, in presence of HSIIDC Officials, and O&M Agency, from 10 MLD, CETP, at Indl. Estate, HSIIDC Barhi, Phase-III, Disst. Sonipat (HR), Subject: Testing of sample of 10 MLD CETP at Indl. Estate Barhi, Phase-III, Marked as "CETP Outlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical  
Group : Pollution & Environment

SNo.	Tests	Results	Protocol
1	pH	7.7	IS: 3025 Pt-11-2022
2	Electrical Conductivity, $\mu$ S/cm	4352	IS: 3025 Pt-14-2019
3	Odour	Agreeable	IS: 3025 Pt-5-2018
4	Colour	Reddish	Visual
5	Total Dissolved Solids, mg/l	2806	IS:3025 Pt-16-2023
6	Sulphate (as SO <sub>4</sub> ), mg/l	418	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.07	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	2.5	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.05	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	27	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	72	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	14	APHA 24th Ed., 5210

Reviewed and Authorized by  
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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000004700F

## TEST REPORT

NO : C1/0000390179



13 Sulphide (as S), mg/l	0.3	IS: 3025 Pt-29-2022
14 Oil & Grease, mg/l	0.8	APHA 24th Ed., 5520
15 Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l (Detection Limit : 0.01 mg/l)	Below Detection Limit	IS: 3025 Pt-43 (Sec - 1) -2022
16 MPN Fecal Coliform per 100 ml	260 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 31.°C

b. During transportation: 4-6 °C

Date of Receipt : 20.03.2025

Date of Start : 20.03.2025

Date of Completion : 04.04.2025

—End of Report —

*[Signature]* *[Signature]*  
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EMPLOYEE CODE:( 4105 )

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ULR NO. : TC54442500004699F

TEST REPORT

NO : C1/0000390178

Issued To :

Client Code : (SONT01H0089)

H.S.I.I.D.C LIMITED,

INDUSTRIAL ESTATE,

BARHI,

SONIPAT

HARYANA-131101

Kind Attn: --SR MANAGER (ENGG)

Date of issue : 04-04-2025  
Job No : 2503-1-411-1830  
Booking No : RG2425/1/10456  
Booking Date : 20-03-2025  
Customer Ref No. : HSENGG:B:2025:959  
Customer Ref Dt. : 19-03-2025  
Location : Laboratory



## Sample Description:

Job No. 2503-1-411-1830

One Grab tape sealed Sample of CETP Water, drawn by our representative on 19.03.2025, in presence of HSIIDC Officials, and O&M Agency, from 10 MLD, CETP, at Indl. Estate, HSIIDC Barhi, Phase-III, Disst. Sonipat (HR), Subject: Testing of sample of 10 MLD CETP at Indl. Estate Barhi, Phase-III, Marked as "CETP Inlet" was received.

Note: The sample details provided in the test certificate are based on the declaration by party.

Discipline : Chemical

Group : Pollution & Environment

<u>SNo.</u>	<u>Tests</u>	<u>Results</u>	<u>Protocol</u>
1	pH	7.6	IS: 3025 Pt-11-2022
2	Electrical Conductivity, $\mu$ S/cm	3512	IS: 3025 Pt-14-2019
3	Odour	Disagreeable	IS: 3025 Pt-5-2018
4	Colour	Blackish	Visual
5	Total Dissolved Solids, mg/l	2458	IS:3025 Pt-16-2023
6	Sulphate (as SO <sub>4</sub> ), mg/l	475	IS: 3025 Pt-24/Sec-1-2019
7	Nickel (as Ni), mg/l	0.2	IS: 3025 Pt-2-2019
8	Iron (as Fe), mg/l	2.8	IS: 3025 Pt-2-2019
9	Total Chromium (as Cr), mg/l	0.7	IS: 3025 Pt-2-2019
10	Total Suspended Solids, mg/l	560	IS: 3025 Pt-17-2022
11	Chemical Oxygen Demand, mg/l	820	IS: 3025 Pt-58-2023
12	Biochemical Oxygen Demand, mg/l (at 20°C for 5 days)	410	APHA 24th Ed., 5210

*Auth*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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[qad@shriraminstitute.org](mailto:qad@shriraminstitute.org)

ULR NO. : TC544425000004699F

TEST REPORT

NO : C1/0000390178



13	Sulphide (as S), mg/l	5.6	IS: 3025 Pt-29-2022
14	Oil & Grease, mg/l	12	APHA 24th Ed., 5520
15	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	0.01	IS: 3025 Pt-43 (Sec - 1) -2022
16	MPN Fecal Coliform per 100 ml	940000 Organisms	IS: 1622:1981, RA 2019

Sampling Method : APHA 24th Ed.1060 & 9060-2023

Environmental Conditions : -

a. During Sampling : 31.°C

b. During transportation: 4-6 °C

Date of Receipt : 20.03.2025

Date of Start : 20.03.2025

Date of Completion : 04.04.2025

—End of Report —

*Damini Jaiti*  
Reviewed and Authorized by  
EMPLOYEE CODE: ( 4105 )

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SRI-C1 (Rev. 05)

### ANNEXURE – V: Pollution source mapping of Drain no. 6

In compliance of Hon'ble NGT order dated 28.05.2024 in O.A. No. 622/2024 in the matter of Varun Gulati Vs State of Haryana & Ors., the joint committee carried out mapping (including collection of wastewater samples) of drain no. 06 from origin (Samalkha, district Panipat in Haryana) to confluence with Supplementary drain 1 near Bakhtavarpur Radha Krishna Mandir on NH-1 (including collection of samples from Najafgarh drain a/c of Supplementary drains b/c river Yamuna) to ascertain the impact of sources of pollution in terms of discharge of sewage and industrial effluents into drain no. 6. The details of sampling points in different stretches of drain no. 6 is provided below in Table 1:

**Table 1: Stretch-wise sampling locations of drain no. 6 from Samalkha (Panipat) to Wazirabad (Delhi)**

S. No.	Stretch	Sampling locations	Waterbody	Latitude	Longitude	Location code
1.	Stretch 1 (Haryana) Approx. 13 km	Drain no. 6 near railway flyover of Chulkana Road, Samalkha	Drain no. 6	29.233289	77.004224	D1
2.		Drain no. 6 near Downstream Haryana organics, Chulkana Road	Drain no. 6	29.215494	76.997186	D2
3.		Drain no. 6 near Village BhouraRasulpur	Drain no. 6	29.178515	76.986630	D3
4.		Drain no. 6 near Village Gumar	Drain no. 6	29.131608	76.997361	D4
5.		Drain no. 6 downstream to Ganaur STP (07 MLD)	Drain no. 6	29.117825	77.002935	D5
6.	Stretch 2 (Haryana) Approx. 22 km	Drain no. 6 at Upstream of CETP Barhi outlet near Rajulu village	Drain no. 6	29.106427	76.996210	D6
7.		Barhi CETP outlet before discharge in drain no. 6 near Rajulu village	Drain no. 6 and CETP Barhi(16 MLD & 10 MLD) outlet	29.100534	76.994908	D7
8.		Drain no. 6 downstream of CETP Barhi near Ralu village	Drain no. 6	29.096278	76.996746	D8
9.		Drain no. 6 near Jawahari village (entry to Sonipat city)	Drain no. 6	29.027203	77.016483	D9
10.		Drain no. 6 near Beej (seed) market bridge	Drain no. 6	28.999209	77.022873	D10

S. No.	Stretch	Sampling locations	Waterbody	Latitude	Longitude	Location code
11.		Drain no. 6 at upstream of 30 MLD Ratadhana STP outlet	Drain no. 6	28.95986	77.04416	D11
12.		Drain no. 6 near Ratadhana village on Sonipat-Narela Road, downstream of Ratadhana STP outlet	Drain no. 6	28.953864	77.042414	D12
13.	<b>Stretch 3 (Haryana) Approx. 13 km</b>	Storm water drain (carrying sewage of 25 MLD STP, Kakroi road, Sonipat)	Storm water drain	28.937885	77.044384	D13
14.		Drain no. 6 post siphon of drain 8 at AkbarpurBarota, Sonapat	Drain no. 6	28.911003	77.06605	D14
15.		Drain no. 6 at exit point from drain 8 at PiyauManiyari b/c of pipeline from CETP Kundli	Drain no. 6	28.883770	77.108489	D15
16.		Drain no. 6 at confluence point of CETP Kundli pipeline in Drain no. 6 at PiyauManiyari, Kundli	Drain no. 6 & CETP Kundli outlet	28.883482	77.108649	D16
17.		Drain No.6 at Harshwardhan colony/Paper Mill colony d/s 500 m to CETP Kundli discharge at PiyauManiyari	Drain6	28.880090	77.10909	D17
18.	<b>Stretch 4 (Delhi) Approx. 17 km</b>	Drain no. 6 near Singhu Border entry point in Delhi	Drain no. 6	28.851269	77.125380	D18
19.		Drain No. 6 at NH-1 at Alipur flyover before confluence supplementary 1 drain at PallaBakhtavarpur Road	Drain no. 6	28.802507	77.142697	D19
20.		Supplementary drain 1 (near Radha Krishna hanuman Mandir) at Culvert b/c of drain no. 6	Supplementary drain 1	28.782730	77.141685	D20
21.		Drain no. 6 just before b/c with Supplementary drain at Budhpur-Makhmalpur road, Delhi	Drain no. 6	28.78278	77.144267	D21

S. No.	Stretch	Sampling locations	Waterbody	Latitude	Longitude	Location code
22.	Stretch 5 (Delhi) Approx. 16 km	Supplementary 2 drain (from Mungeshpur drain) from HaiderpurBadli before joining supplement 1 drain near Mukarba Chowk	Supplementary drain 2 (Mungeshpur drain)	28.735599	77.155228	D22
23.		Najafgarh drain b/c of supplementary drain-1 (near Delhi Transco office)	Najafgarh drain	28.709164	77.225598	D23
24.		Supplementary drain 1 b/c Najafgarh drain near Nehru Nagar, Delhi	Supplementary drain 1	28.711262	77.227345	D24
25.		Najafgarh drain a/c of supplementary drains and drain no. 6 b/c river Yamuna (near signature bridge)	(Najafgarh drain)	28.708276	77.230258	D25

The sampling locations are depicted on map below in Figure 1:

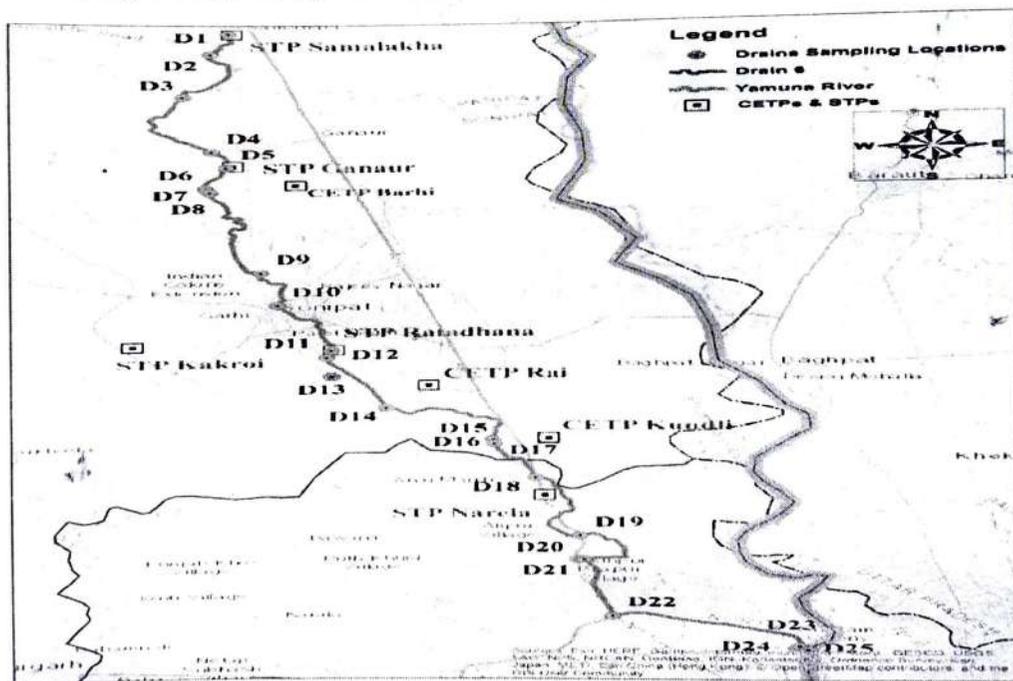


Figure 1: Map showing monitoring locations on Drain No. 6 and its adjoining drains

**Stretch 1: Origin of Drain no. 6 from Samalkha town to downstream of Ganaur STP (7 MLD), Sonipat**

Stretch 1 of Drain No. 6 was monitored from its origin at Samalkha town (Panipat) up to the downstream point to Ganaur STP (7 MLD), Sonipat. During monitoring of this stretch which is approximately 13 Km in length (D1 to D5), samples were collected from 5 locations i.e., from Railway flyover of Chulkana Road till downstream of 7 MLD Ganaur STP. Lab results of stretch 1 are tabulated below:

Location code	Colour	pH	COD	BOD	TSS	TDS	Cl-	NO <sub>2</sub> -N	NO <sub>3</sub> N	NH <sub>3</sub> N	SO <sub>4</sub>	TKN	TC	FC	Flow (MLD)
D1	130	7	411	106	125	1264	141	0.03	BDL	30	203	35	24*10 <sup>8</sup>	14*10 <sup>7</sup>	0.51
D2	533	7.1	750	224	306	1460	225	0.13	BDL	33	70	46	-	-	-
D3	95	7.4	203	81	128	1224	238	0.03	BDL	39	112	45	-	-	-
D4	104	7.6	193	66	111	1264	190	0.03	BDL	30	68	35	11*10 <sup>6</sup>	12*10 <sup>5</sup>	39.5
D5	40	7.6	120	33	32	1104	228	0.3	0.7	21	134	26	17*10 <sup>4</sup>	11*10 <sup>4</sup>	53.76

*All values in mg/l except for Colour in CU, pH, TC/FC in MPN/100ml*

Based on analysis results and location-wise observations made during the monitoring of Drain No. 6 in stretch 1 are as follows:

- i. **Drain no. 6 near railway flyover of Chulkana Road, Samalkha, Panipat (0 km) – D1**
  - Flow of the drain was measured as 0.51 MLD and light grey colored of water in the drain was observed. Also, Samalkha Sewage Treatment Plant(STP) (05 MLD) was located near the sampling point, however, no discharge of STP outlet was observed in the drain at the time of visit.
  - Three nos. of industries namely, M/s VSP Enterprises Pvt. Ltd. Unit-II, Gandhi Adarsh college, village - Kiwana Tehsil - Samalkha, Distt - Panipat, Haryana (India), M/s Nestle India Ltd. Patti Kalyana Kiwana, Road, Samalkha, Haryana 132101 and M/s Haryana Organics (A unit of Globus Spirits Limited), Chulkana - Samalkha Road, Samalkha, Haryana 132101 were located on the embankment of the drain, in the downstream of this location.
  - Outlet from M/s Nestle India Ltd. was observed in the drain however, no discharge in the drain was observed at the time of visit.
  - Values of BOD (106 mg/l) and COD (411 mg/l) suggests domestic waste water characteristic of drain which is due to sewage generation from nearby Samalkha township area.



Figure 2: Drain no. 6 near Samalkha, Panipat

ii. Drain No. 6 near Downstream of M/s Haryana Organics, Chulkana Road (D2)

- Downstream location of M/s Haryana Organics (A unit of Globus Spirits Limited), Chulkana - Samalkha Road, Samalkha, Haryana 132101), was filled with silt and sludge with meagre flow.
- Also, septic condition was observed due to the stagnant condition of waste water in the drain.
- From Lab Analysis data, it has been observed that there was significant amount of increase in values of BOD (224 mg/l) & COD (750 mg/l) at the downstream of Haryana Organics which indicates industrial effluent impact on Drain No. 6.



Figure 3: Drain no. 6 at downstream Haryana Organics, Samalkha

iii. Drain no. 6 near Village BhouraRasulpur (D3)

- Village BhouraRasulpur is located at the upstream of this sampling location.
- Black coloured wastewater was observed at this sampling location.
- Solid waste and floatable materials were found dumped in the drain.

- Agricultural field were observed on both side of the drain at village BhouraRasulpur.
  - Lab results (BOD – 81 mg/l & COD – 203 mg/l) indicate domestic waste water characteristic of drain.
- iv. **Drain no. 6 near Village Gumar (D4)**
- Villages namely Kheri Gujjar, Khijjarpur and Ahir, Gumar were located at the upstream of this location.
  - At this location, the color of the drain was dark black and solid waste and floatable materials were found dumped in the drain. Agricultural field were observed on both side of the drain.
  - Screens may be installed by the village authority before the drains originating from the nearby villages.
  - Lab results (BOD – 66 mg/l & COD – 111 mg/l) indicate domestic waste water characteristic of drain.
- v. **Drain no. 6 downstream to 7 MLD Ganaur STP (D5)**
- At this location, the flow of the drain no. 6 was measured as 53.76 MLD.
  - The villages Gumar and Ganuar were located at the upstream of this location. The sewage of Gumar village is discharged directly into drain no. 6.
  - Treated sewage from Ganaur STP is being discharged in to the drain no. 6, therefore, drain samples were collected from the downstream location of the Ganaur STP (07 MLD), Sonipat (coordinate of sampling location at downstream to Ganaur STP: 29.117825, 77.002935).
  - Silt deposition was also observed in the Drain no. 6 at this location.
  - It is observed that there was decrease in values of BOD (33 mg/l) & COD (120 mg/l) which is due to dilution caused by release of treated effluent from Ganaur STP.

**Stretch 2: Drain no. 6 at upstream of CETP Barhi outlet near RajuluGarhi village to Drain no. 6 at downstream of 30 MLD Ratadhana STP outlet**

In this stretch, Drain no. 6 receives treated effluent from 16 and 10 MLD CETPs located at Barhi Industrial Area and treated wastewater from 30 MLD STP, Rathdhana Road, Sonipat.

It was observed that in this entire stretch of about 22 Kms, a total of 28 point sources exist in Sonipat district that discharge untreated wastewater into drain no. 6. Out of these, 17 are local municipal drains coming from Sonipat town (out of which only 01 drain was found tapped); and

11 are drains from 08 villages namely, Bhoura Rasulpur, Kheri Gujjar (02 Locations), Ahir Mazra, Gumar (02 Locations), Agwanpur, Bhogipur (2 Locations), Tharya, Jawhri. It was also observed that a distillery unit namely M/s Frost Falcon Distilleries is located at the upstream location (approximately 2.5 km) of the Drain no. 6 at Jawahari village (entry to Sonipat town).

During monitoring of this stretch (D6-D12), samples were collected from 7 locations i.e. from upstream of outlet of CETP Barhi near Rajulu Garhi village till downstream of Ratdhana STP at Ratdhana village. Lab analysis results of this stretch are tabulated below:

Location code	Colour	pH	COD	BOD	TSS	TDS	Cl <sup>-</sup>	NO <sub>2</sub> <sup>-</sup> N	NO <sub>3</sub> N	NH <sub>3</sub> N	SO <sub>4</sub>	TKN	TC	FC	Flow (MLD)
D6	46	7.5	128	27	36	1048	180	0.02	BDL	25	95	39	-	-	-
D7	87	7.6	195	36	54	2092	561	0.03	7.08	14	256	17	-	-	-
D8	59	7.6	171	19	154	1472	390	0.02	3.82	16	307	26	-	-	-
D9	62	7.2	353	183	177	1560	304	0.02	1.38	21	265	28	28*10 <sup>7</sup>	17*10 <sup>6</sup>	69.12
D10	545	7.1	331	111	85	1472	418	0.17	0.79	21	121	25	35*10 <sup>9</sup>	28*10 <sup>9</sup>	76.97
D11	294	7.1	691	186	81	1432	418	0.1	0.91	29	176	32	22*10 <sup>8</sup>	24*10 <sup>7</sup>	-
D12	385	7	240	69	138	1380	371	0.12	0.8	28	135	30	14*10 <sup>6</sup>	17*10 <sup>5</sup>	-

All values in mg/l except for Colour in CU, pH, TC/FC in MPN/100ml

Based on analysis results and the location-wise observations were made during the monitoring of Drain no. 6 in stretch 2 are as follows:

- i. **Drain no. 6 at Upstream of CETP Barhi outlet near Rajulu Garhi village (D6)**
  - Agwanpur, Sonipat village was located at the upstream of this location.
  - This sampling location signifies the control location w.r.t discharge of CETPs located at Barhi Industrial area, Sonipat.
  - The observed value of BOD at this location was 27 mg/l.
- ii. **Barhi CETP outlet before discharge in drain no. 6 near Rajulu village (D7)**
  - This sampling location is the outfall of CETPs at Barhi HSIIDC (16 and 10 MLD).
  - Samples were directly collected from the outfall pipe on drain no. 6 near Rajulu Garhi village, with BOD value – 36 mg/l.
- iii. **Drain no. 6 downstream of CETP Barhi near Rajulu Garhi village (D8)**
  - Village Rajulu Garhi was located at the downstream of discharge point of CETP Barhi.
  - At upstream of this location, flow of Drain no. 6 is supplemented by treated effluent from 16 & 10 MLD CETP.

- The BOD value of drain at this location was 19 mg/l which may be because of the high volume flow from CETP Barhi outfall causing a dilution effect.
  - Thereafter, Drain no. 6 then flows to Sonipat town downstream of this point.
- iv. Drain no. 6 near Jawahari village (entry to Sonipat city) (D9)**
- Drain no. 6 enters in to city Sonipat from Jahari village. The flow was measured as 69.12 MLD at this location.
  - The colour of the drain was black. Deposition of silt was observed in the drain.
  - Solid waste and floatable materials were found dumped in the drain at this location.
  - From lab analysis data, it has been observed that there was significant increase in values of BOD i.e. 183 mg/l and COD i.e. 353 mg/l at the entry point of Sonipat city suggests domestic waste water characteristics which might be due to discharging of sewage from nearby areas of Sonipat town.
- v. Drain no. 6 near Beej (seed) market bridge (D10)**
- Huge quantity of solid waste and floatable materials were found dumped in Drain no. 6 on Beej market bridge, Sonipat. The colour of the drain effluent was black.
  - Many other small drains carrying sewage from the different areas/colonies were directly discharging into the drain no. 6 at upstream of this location.
  - The drain was covered in a concreted structure.
  - The flow of the drain no. 6 was measured as 76.97 MLD.
  - There are 28 no. of point sources of untreated discharge exist in the Drain no. 6 from Sonipat town.
  - Highest value of coliform bacteria in this stretch was found at this location indicating a high volume of domestic sewage in the drain no. 6.
- vi. Drain no. 6 at upstream of 30 MLD Ratadhana STP outlet (D11)**
- Ratadhana STP is located downstream of the Sonipat town area on Sonipat-Narela Road.
  - Many pumps were seen pumping drain water to nearby agriculture fields from Drain no. 6.
  - At Upstream of sampling location, the drain is carrying mixed type of effluent from Sonipat town and industries located upstream of town. Drain was under-construction (covering from top) from Sonipat town up to this point.
  - Stagnancy and lean flow with high quantity of sludge observed at the location with black-coloured drain water with an oily layer on the surface of drain.
  - High values of BOD, COD, TSS and TKN observed at this location.

**vii. Drain no. 6 near Ratadhana village on Sonipat-Narela Road, downstream of Ratadhana STP outlet (D12)**

- This location is downstream of the Ratadhana 30 MLD STP and Sonipat town.
- This area is thinly populated and drain no. 6 is covered beyond this point up to near OP Jindal University.
- The value of BOD at this location was 69 mg/l which is lower than at u/s of Ratadhana STP where BOD was observed at 186 mg/l.
- Discharge from 30 MLD STP Ratadhana at upstream of this point causes dilution of the drain water causing observed lower value of BOD and fecal coliform compared with upstream of Ratadhana STP.

**Stretch 3: Drain no. 6 at upstream of OP Jindal University on Sonipat-Narela Road to Drain no. 6 near Harshwardhan Colony, Kundli**

In this stretch, Drain no. 6 receives discharge of treated wastewater from 25 MLD STP, Kakroi Road, Sonipat through a storm water drain. It also receives discharge of treated effluent from 10 MLD CETP, Rai, Sonipat and 10 MLD CETP, located in Kundli at Sonipat city. Another discharge point from of sewage/storm water pumped from Kundli industrial area also mix with drain no. 6 at Piyau Maniyari after its flows towards Delhi separating from parallel line with drain 8. Effluent from nearby residential areas in Sonipat and Kundli also have discharge in this stretch.

During monitoring of this stretch which is approximately 13 Km in length, samples were collected from 5 locations i.e. from Storm water drain at Kakroi road Sonipat till Harshwardhan colony/Paper Mill colony d/s 500 m to CETP Kundli discharge at Piyau Maniyari. Lab analysis results of this stretch are tabulated below:

Location Code	Colour	pH	COD	BOD	TSS	TDS	Cl-	NO <sub>2</sub> <sup>-</sup> N	NO <sub>3</sub> N	NH <sub>3</sub> N	SO <sub>4</sub>	TC	FC	TKN
D13	29	7.6	39	3	31	1024	266	0.01	BDL	10	258	84*10 <sup>5</sup>	21*10 <sup>5</sup>	13
D14	38	7.1	218	84	101	752	228	0.02	BDL	27	164	35*10 <sup>9</sup>	46*10 <sup>8</sup>	28
D15	115	7.3	197	45	88	984	285	0.02	0.5	31	202	-	-	32
D16	71	7.1	217	72	124	1840	418	BDL	BDL	26	434	-	-	28
D17	142	7.3	222	105	114	1304	323	0.03	BDL	34	238	-	-	36

All values in mg/l except for Colour in CU, pH, TC/FC in MPN/100ml

Following major observations were made during the monitoring of Drain no. 6 in stretch 3:

- Storm water drain (carrying treated sewage of 25 MLD STP, Kakroi road, Sonipat) (D13)**

- A storm water drain carrying discharge of treated effluent from Kakroi STP (approx. 11 km from sampling point) and flow from the drain was used for irrigation purposes in nearby agricultural fields, meets drain no. 6 at approx. 300 meter downstream of the sampling point near Jagdishpur village.
  - Significant amount of flow was observed near the culvert and backflow from Drain no. 6 to this storm water drain at the confluence point.
  - Backflow of drain no. 6 observed in the storm water drain may be due to the higher flow in drain no. 6.
  - As informed by the villagers, the water from storm water drain is used for irrigation in nearby areas. Largely flows through farm lands from Kakroi STP to confluence point with drain no. 6 near Jagdishpur village.
- ii. Drain no. 6 post siphon of drain 8 at Akbarpur Barota, Sonipat (D14)**
- At Akbarpur Barota village, drain no. 6 crosses Drain no. 8 through a siphon, has a considerable amount of flow.
  - Thereafter, Drain no. 6 was lined and flows parallel along Drain no. 8 till Piyau Maniyari, Kundli.
  - At upstream of 500 meters from this sampling location, effluent from CETP Rai, Sonipat was discharging into Drain No. 6, and drain was covered up to the Western Peripheral Road.
  - The analysis results of the sample from this sampling point show BOD – 84 mg/l which is higher than the value at d/s of Ratadhana STP (69 mg/l), which may be because of discharge of treated effluent from CETP Rai, upstream of this sampling point.
  - Drain no. 6 starts flowing parallel to drain 8 from this point up to Kundli. Storm water and other wastewater from Akbarpur Barota were received in drain no. 6. Akbarpur Barota is an Industrial area.
- iii. Drain no. 6 at exit point from drain 8 at Piyau Maniyari b/c of CETP Kundli outlet (D15)**
- Drain no. 6 diverts its parallel path from Drain no. 8 and channelizes towards Kundli - Narela from this point downwards. Drain No. 8 flows towards Palla and meets the Yamuna river.
  - It carries Industrial effluent from the Nathupur industrial area and domestic sewage from nearby areas.

- At downstream of the sampling location, CETP Kundli was discharging effluent into it through a pipeline. Also, sewage from the Kundli industrial area is pumped to this point of Drain no. 6.
- Drain no. 6 changes direction towards the Singhu border from this point and meets CETP Kundli outlet at downstream of the sampling location.

**iv. Drain no. 6 at confluence point of CETP Kundli pipeline in Drain no. 6 at Piyau Maniyari, Kundli (D16)**

- This point is the diversion point of drain no. 6 towards Kundli after flowing parallel to drain 08 downstream of Barota.
- Samples were collected at PiyauManiyari just after CETP Kundli outlet and domestic sewage discharge from Kundli area into Drain No. 6.
- Two sewer line from CETP Kundli and one domestic sewer line from Kundli area running parallel along drain no. 8 discharging into sampling location.
- Discharge from CETP Kundli reaches drain no. 6 and solid waste and sludge observed in drain no. 6 downstream of this point.

**v. Drain No.6 at Harshwardhan colony/Paper Mill colony d/s 500 m to CETP Kundli discharge at Piyau Maniyari (D17)**

- This sampling point receives discharge from drain no. 6 and is supplemented by discharge from Kundli CETP and sewage pumping station in Kundli industrial area.
- Drain No. 6 is receiving sewage from nearby slum areas and Cattle farming activities.
- Downstream of discharge from CETP Kundli and sewage pumped from Kundli Industrial area. Highest BOD -105 mg/l in stretch 3.

**Stretch 4: Drain No. 6 near Singhu Border of Delhi and Haryana at NH-1 to drain no. 6 confluence with supplementary drain1 near Makhmalpur village on Palla-Bakhtavarpur Road)**

In this stretch of Drain no. 6 enters Delhi at Singhu border carrying waste water both Industrial and domestic from Panipat and Sonipat district of Haryana flowing through industrial clusters in Haryana in Kundli and Rye. This stretch of drain no. 6 starting from Singhu border ends near Makhmalpur village on Palla Bakhtavarpur Road, Bhiarogarh near Budhpur, Delhi where drain no. 6 meets supplementary drain 1. During monitoring of this stretch which is approximately 17 Km in length, samples were collected from 4 locations i.e. from Singhu

Border to near Makhmalpur village on Palla Bakhtavarpur Road. Drain no. 6 receives discharge from 10 MGD Narela STP, Delhi in this stretch which may be one of the causes of the drop in BOD value of drain no. 6 to 19 mg/l in comparison to the upstream location value of 60 mg/l.

The analysis results of this stretch are tabulated below:

Location code	Colour	pH	COD	BOD	TSS	TDS	Cl <sup>-</sup>	NO <sub>2</sub> N	NO <sub>3</sub> N	NH <sub>3</sub> N	SO <sub>4</sub>	TC	FC	TKN
D18	107	7.4	258	62	345	1104	418	0.02	0.91	34	356	-	-	37
D19	23	7.5	136	60	112	1616	714	BDL	0.89	29	148	22*10 <sup>4</sup>	27*10 <sup>3</sup>	30
D20	123	7.2	225	67	142	3776	932	0.03	BDL	22	876	28*10 <sup>6</sup>	17*10 <sup>5</sup>	26
D21	60	7.6	119	19	106	1256	418	BDL	0.64	25	410	92*10 <sup>3</sup>	92*10 <sup>3</sup>	28

All values in mg/l except for Colour in CU, pH, TC/FC in MPN/100ml

Following major observations were made during the monitoring of Drain no. 6 in stretch 4:

**i. Drain no. 6 near Singhu Border entry point in Delhi (D18)**

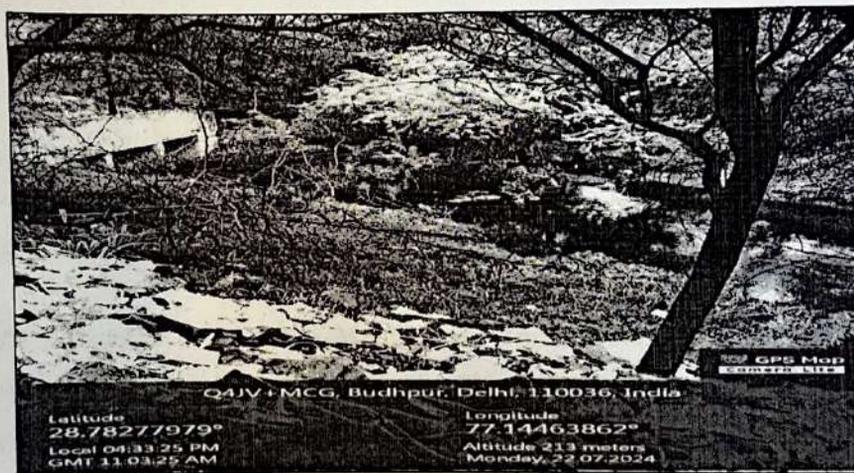
- Samples were collected from culvert at NH-1 near Singhu border just after entering Delhi, downstream of Rai and Kundli industrial area in Sonipat.
- This point was located at approx. 4 km downstream of Piyau Maniyari in Kundli where drain no. 6 separates from drain 8.
- Drain no. 6 receives discharge from CETP Kundli & CETP Rai upstream of this point. High colour value observed.
- A channel meets drain no. 6 at downstream of Harshwardhan colony near Kundli border, coming from Delhi (western side), team could not reach the confluence point of the channel with drain no. 6 because of rain.

**ii. Drain No. 6 at NH-1 at Alipur flyover before confluence with Supplementary 1 drain at Palla Bakhtavarpur Road (D19)**

- At upstream of sampling location (7.16 km downstream of Singhu Border at Alipur flyover before confluence with Supplementary 1 drain at Palla Bakhtavarpur Road), Drain No. 6 carries industrial effluent and domestic sewage from nearby areas.
- At downstream drain No. 6 is merging with Supplementary drain 1 at near Budhpur village, Delhi, Bankoli industrial area is located downstream of this point on Drain no. 6.
- This location is at downstream of Narela STP which resulted in dilution of Drain no. 6.

**iii. Supplementary drain 1 (near Radha Krishna Hanuman Mandir) at Culvert b/c of Drain no. 6. (D20)**

- Drain no. 6 meets supplementary drain at 400 meter downstream of this point and flows up to Wazirabad to meet Najafgarh drain.
  - Industrial area of Budhpur, Delhi is located near the supplementary drain upstream of the sampling point.
  - Highest value of sulphate found in Supplementary drain 1 at this location before confluence of drain no. 6.
- iv. **Drain no. 6 just before b/c with Supplementary drain at Budhpur-Makhmalpur road, Delhi (D21)**
- Samples were collected from drain no. 6 at Budhpur-Makhmalpur road, Delhi near Radha Krishna hanuman Mandir just before its confluence with supplementary drain.
  - Makhmalpur village is located upstream of the sampling point and extended channel opposite side of culvert on drain no. 6 was found without flow with rainwater deposition at Makhmalpur village.
  - Huge amount of biomedical waste dumping was observed along the banks of drain.



**Figure 4: Biomedical waste dumping on the embankment of Drain no. 6**

- Drain No. 6 had a BOD of 19 mg/l near Makhmalpur village, just before its confluence with Supplementary Drain 1. The decrease in BOD at this location, compared to Alipur (D19), may be attributed to the mixing of treated sewage from the Narela STP and the relatively sparse population in the upstream catchment of Drain No. 6, which allows for the natural degradation of organic pollutants.

- The coliform bacteria levels at this point in Drain No. 6 were also found to be lower, with TC and FC as  $92 \times 10^3$  MPN/100 ml. This suggests a dilution of drain effluent compared to upstream locations and a higher proportion of domestic wastewater.

**Stretch 5: Confluence point of drain no. 6 with Supplementary drain 1 near Bakhtavarpur Radhakrishan Mandir on NH-1 to Najafgarh drain a/c of Supplementary drains (including drain no. 6) b/c river Yamuna (near signature bridge)**

This stretch signifies the stretch of supplementary drains from confluence point of drain no. 6 near Makhmalpur into Supplementary 1 drain, and confluence of supplementary drain 2 near Mukarbachowk with supplementary drain 1 which further flows to river Yamuna through Najafgarh drain near Wazirabad. Najafgarh drain and supplementary drain 2, also carries waste water from Western and Northern areas of Delhi through local drains including Mangeshpur drain as well as from Najafgarh drain's catchment area in Haryana state. This monitored stretch of drain is approximately 14 km and samples from 04 points are collected from this stretch from different water bodies including Najafgarh drain. The details of samples are as follows -

Location Code	Colour	pH	COD	BOD	TSS	TDS	Cl-	NO <sub>2</sub> N	NO <sub>3</sub> N	NH <sub>3</sub> N	SO <sub>4</sub>	TC	FC	TKN
D22	5	7.2	205	104	359	820	323	BDL	BDL	11	70	$79 \times 10^5$	$79 \times 10^5$	22
D23	48	7.3	186	14	87	1088	371	0.01	BDL	28	307	$31 \times 10^5$	$21 \times 10^5$	36
D24	45	7.4	167	66	363	1524	325	BDL	BDL	21	207	$35 \times 10^4$	$35 \times 10^4$	26
D25	62	7.3	159	50	257	1356	285	0.02	BDL	23	183	$17 \times 10^5$	$11 \times 10^5$	33

All values in mg/l except for Colour in CU, pH, TC/FC in MPN/100ml

- Supplementary 2 drain (from Mungeshpur drain) from Haiderpur Badli before joining supplement 1 drain near Mukarba Chowk (D22)**
  - Supplementary 2 (Mungeshpur drain) at Mukarba Chowk carries domestic sewage from Rohini and nearby areas finally discharging into Supplementary 1.
  - This drain after confluence with supplementary drain 1 near Mukarba chowk flows to river Yamuna through Najafgarh drain near Wazirabad.
- Najafgarh drain b/c of supplement 1 drain (near Delhi Transco office) (D23)**
  - Najafgarh drain carries waste water from large part of Delhi and many parts of Haryana.
  - At 500 m downstream of sampling location supplementary 1 drain is merging into Najafgarh drain.

**iii. Supplementary drain 1 b/c Najafgarh drain near Nehru Nagar, Delhi (D24)**

- Supplementary drain 1 at coordinates N 28.711262 E 77.227345 near Wazirabad old bridge just before confluence with Najafgarh drain was a mixed drain carrying industrial effluent from Bharogarh and other industrial areas in NCR and domestic sewage from nearby areas with a huge amount of flow.
- At upstream of sampling location Supplementary drain 2 is merging at Mukarba Chowk. while at downstream it is finally discharging into Najafgarh drain.
- During monitoring, Sewage was observed blackish in color and having foul smell.

**iv. Najafgarh drain a/c of supplementary drains and drain no. 6 b/c river Yamuna (near signature bridge) (D25)**

- Najafgarh drain enters Delhi from Najafgarh area and traverse a distance of approx. 55 km before final confluence with river Yamuna. It carried domestic sewage generated from South west, West and North west Delhi.
- At upstream of sampling location distance of around 300 m supplementary 1 drain carrying waste water of drain no. 6, is merging with Najafgarh drain.
- During monitoring, Sewage was observed blackish in color along with foul smell.