



Dr Vinod Tare
 Professor & Founding Head - cGanga

February 8, 2024

Shapoorji Pallonji and Company Pvt Ltd
 Nagindas Master Road, Fort Mumbai
 400001 Maharashtra India

Subject: Performance Assessment of Various STPs in Kanpur

Ref: Email dated May 11, 2023

Shapoorji Pallonji and Company Pvt Ltd via email dated May 11, 2023 requested to carryout 24 h composite sampling through collection of grab samples at 2 h interval and analysis of various composite samples prepared by mixing grab samples in proportion to the measured flows at the inlet and outlet of 130 MLD STP (Jajmau Kanpur), 43 MLD STP (Jajmau Kanpur), 42 MLD STP (Sajari, Kanpur), and 210 MLD STP (Bingawan, Kanpur) for certain parameters.

The samples were collected by sampling team of cGanga, IIT Kanpur in presence of representatives from Shapoorji Pallonji and Co. Pvt Ltd and GPCU, UPJN during January 27, 2023 – February 1, 2024.

The preservation and analysis of the samples were done as per the Standard Methods (Standard Methods for the Examination of Water and Wastewater, APHA). The analysis of the sample for the requested parameters started immediately after bringing it to laboratory. The results of the analysis are reported in following table.


Estimated Parameter Values of Various STPs in Kanpur

Location	Date of Sampling	TSS (mg/l)	BOD (mg/l)	COD (mg/l)	Fecal Coliform	Total Coliform
130 MLD, Jajmau (Inlet) ¹	January 27-28, 2023	436	160	400	3.00E+07	1.30E+08
130 MLD, Jajmau (Outlet) ²	January 27-28, 2023	46	24	80	2.30E+05	9.00E+05
43 MLD, Jajmau (Outlet) ³	January 27-28, 2023	136	48	160	3.00E+05	1.70E+06
42 MLD, Sajari (Inlet) ⁴	January 31 2023- February 1, 2024	468	180	480	5.00E+04	1.40E+05
42 MLD, Sajari (Outlet) ⁵	January 31 2023- February 1, 2024	36	24	80	8.00E+02	3.40E+03
210 MLD, Bingawan (Inlet) ⁶	January 29-30, 2023	440	200	480	8.00E+07	2.40E+08
210 MLD, Bingawan (Outlet) ⁷	January 29-30, 2023	46	36	128	2.30E+05	7.00E+05

1: Composite Sample prepared based on flow recorded as per reading of the flow meter installed; 2: Composite Sample prepared assuming uniform flow as there is no device installed for measurement of flow; 3: Composite Sample prepared assuming uniform flow as there is no device installed for measurement of flow; 4: Composite Sample prepared based on flow recorded as per reading of the flow meter installed; 5: Composite Sample prepared based on flow recorded as per reading of the flow meter installed; 6: Composite Sample prepared assuming uniform flow as there is no device installed for measurement of flow; 7: Composite Sample prepared assuming uniform flow as there is no device installed for measurement of flow.

Important Observations: 1. There is no flow in inlet and outlet observed after sampling at 02:00 am and before 06:00 am at 130 and 43 MLD STP in Jajmau Kanpur; 2. There is no flow in inlet and outlet observed after 11:00 pm and before 07:00 am at 42 MLD STP in Sajari, Kanpur.

The results presented are based on one-time analysis of the samples collected over 24 h period on the dates mentioned in the table by cGanga, IIT Kanpur.


 (Vinod Tare)