



# KALASALINGAM

## ACADEMY OF RESEARCH AND EDUCATION

### (DEEMED TO BE UNIVERSITY)

Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade



Anand Nagar, Krishnankoil, Srivilliputtur (Via), Virudhunagar (Dt) - 626126, Tamil Nadu | info@kalasalingam.ac.in | www.kalasalingam.ac.in



Ensure availability and sustainable management of water and sanitation for all

### THE - Impact Rankings 2025

#### 6.5.4 Cooperation of water security

KARE campus maintains separate canals for sewage water, rainwater and drinking water so there is no possibility of mixing polluted water with drinking water in our campus.



Save Water Slogans in common bathrooms



**Aeration Tapes are used for reduced water usage**



**Figure:1 Separate canals for the rainwater collection**



**Figure:2 Dual Pipeline system used for treated water**

The sewage water is taken to the sewage treatment for recycling and treated water is utilized using the dual pipeline system for irrigating the garden and flushing of toilets.

A new hi-tech Sewage Treatment Plant with a treatment capacity of 8 lakh liters per day has been installed in the campus to treat and recycle the wastewater generated from the hostels, academic blocks and staff quarters in the campus. Tertiary treatment of sewage water is carried out using rapid sand filters, activated charcoal, UV and Chlorine disinfection. The plant uses the advanced Sequential Batch Reactor technology against conventional Activated Sludge Process for efficient treatment confirming to the norms of regulatory bodies. KARE has a sewage Treatment Plant with a capacity of treating at least 500 kilo liters of wastewater each day, and an advanced UV disinfection technology. Using a dual pipeline system, the treated water is used for flushing urinals and in sprinklers to flourish the green cover of the campus and irrigate vegetation like coconut groves.



**Figure:3 Sewage Treatment Plant 1 – (300 Kiloliter per day)**



**Figure:4 Sewage Treatment Plant 2 – (500 Kiloliter per day)**



**Figure:5 Tertiary treatment of sewage water using rapid sand filter, activated charcoal, UV and Chlorine disinfection**

### Water Analysis

KARE has analyzed the water quality parameters and it is compared with BIS standards. The following table shows the quality of drinking water and it proves that it is pure, safe and clean.

Drinking water quality in KARE Campus:

No.	Parameters	KARE Value	BIS Standards
1	pH	7.6	6.5-8.5
2	Turbidity	NIL	1 NTU
3	Conductivity ( $\mu$ mhos)	90.4	<250
4	Hardness (ppm)	40.71	200

5	Total Dissolved Solids (ppm)	58.5	500
6	Chloride (ppm)	32.07	<250
7	Salinity (ppm)	74.3	<500
8	Nitrates (ppm)	-	45
9	Sulphates (ppm)	6.85	200
10	Phosphate (ppm)	0.01	1.5
11	Fecal Coliform counts/ml	-	-

From this water analysis, it is inferred that the drinking water is pure and potable without any pollutants.

The university provides safe and purified drinking water to the teaching and non-teaching faculty, students and visitors.



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**SCHOOL OF ADVANCED SCIENCES / DEPARTMENT OF CHEMISTRY**  
**CHEMISTRY LABORATORY**

09.07.2024

**Water Analysis Report**

Name of the sample : KARE Sewage Plant

Date of the sample taken : 09.07.2024

Analyzed Date : 09.07.2024

Sl. No	Parameters	Observed Values		Agriculture Irrigation Standard
		Inlet	Outlet 500 KLD	
1.	pH	10.5	8.1 ✓	6.5 – 8.5
2.	TDS	1250 ppm	867 ppm ✓	< 1000 ppm
3.	Turbidity	10 NTU	3 NTU ✓	< 5 NTU

S. N. Nagesh  
HoD / Chemistry  
5/7/2024



*[Signature]*  
Dean / SAS



**TAMILNADU POLLUTION CONTROL BOARD**  
Advanced Environmental Laboratory, Madurai  
(E Mail: [selmdo@tncpcb.gov.in](mailto:selmdo@tncpcb.gov.in), Phone No:0452 2489497)

ROA No. 226 /AEL-MDU/2022-23, Dated: 01.03.2023

1.	Name and address of the sender	The District Environmental Engineer Tamil Nadu Pollution Control Board Virudhanagar.
2.	Dated and Time of collection	01.02.2023, 3.50 pm, 04.00 pm
3.	Date and Time of receipt at Lab.	02.02.2023, 03.15 pm
4.	Condition of Seal, Fastening	Unsealed, Unfastened
5.	Nature and Number of Samples	2 Numbers of Sewage
6.	Date of Analysis	02.02.2023

DEE Code No.	Lab code No.	Point of Collection	Whether Untreated/Treated
02-01	1653	STP Inlet	Untreated
02-02	1654	STP Outlet	Treated

**Test Report**

Sl. No	PARAMETER	TEST METHOD	Unit	Test Samples Code Nos.	
				Lab: 1653	Lab: 1654
				DEE: 02-01	DEE: 02-02
1.	pH @ 25° C	APHA 23 <sup>rd</sup> Edt 2017, Part No. 4500 H <sup>+</sup>	-	6.40	7.16
2.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edt 2017, Part No. 2540 D	mg/L	58	10
3.	Total Dissolved Solids	APHA 23 <sup>rd</sup> Edt 2017, Part No. 2540 C	mg/L	1132	968
4.	BOD for 3 days @ 27° C	IS 3025 (Part 44) 1993	mg/L	242	4
5.	C O D	IS 3025 (Part 58) 2006	mg/L	1008	32
6.	Total Solids	APHA 23 <sup>rd</sup> Edt 2017, Part No. 4500- Norg B NH3 B.C, NO <sub>2</sub> , NO <sub>3</sub>	mg/L	1190	978
7.	Ammoniacal Nitrogen	APHA 23 <sup>rd</sup> Edt 2017, Part No. 4500- NH3 B.C	mg/L	20.16	1.12
8.	Total Kjeldahl Nitrogen	APHA 23 <sup>rd</sup> Edt 2017, Part No. 4500- Norg B	mg/L	44.8	3.92
9.	Total Coliform	APHA 23 <sup>rd</sup> Edt 2017, Part No. 9221-B	MPN/100ml	33 x 10 <sup>3</sup>	32
10.	Fecal Coliform	APHA 23 <sup>rd</sup> Edt 2017, Part No. 9221-E	MPN/100ml	14 x 10 <sup>3</sup>	17

**Note:**

1. Results relate only to the items tested samples.
2. The reports shall not be reproduced except in fully approval of the laboratory can provide assurance that parts of a reports are not take out of context.


Checked by

*S. M. A. Hameed*  
DCSO

Authorized Signatory

*N. V. Srinivasan*  
21/3/23  
Chief Scientific Officer,  
AEL, TNPCB, Madurai





# NAWaL Analytical Laboratories

## Test Report


Certified as per ISO 9001:2015, ISO 45001:2018


Report No.	NAL001E3000043602		Date:	27/10/2023	
Sample ID No.	NAL/2023/102400016124				
Discipline / Group	Chemical / Pollution & Environment				
Name of the Customer*	WATER MAX (Kalasalingam Academy Of Research Education)				
Address	1/216, Anand Nagar, Engappanickalerpatti Panchayat, Kuthanadai, Srivilliputhur (Tk), Virudhunagar (Dt), Tamilnadu-626126.				
Sample Described by the Customer*	ETP PLANT TREATED WATER				
Quantity of the Sample Received	2 Ltr				
Condition on Receipt	Fit for Analysis				
Requested by*	Mr. P. Mani				
Information about Sampling	Submitted by Customer				
Customer Reference	By Letter Dated 20/10/2023				
Date of Sample Receipt	20/10/2023				
Date of Test Starting	20/10/2023				
Date of Test Completed	27/10/2023				


S.No	PARAMETERS	TEST PROTOCOL	UNIT	TEST RESULTS	PCB NORMS
1	pH @ 25°C	IS 3025(P-11)-2022	-	6.85	5.5-9.0
2	Total Dissolved Solids	IS 3025(P-16)-1984	mg/L	869.0	2100.0
3	Chemical Oxygen Demand	IS 3025(P-58)-2006	mg/L	48.77	250.0
4	BOD, 5 days @ 27°C	IS 3025(P-44)-1993	mg/L	9.25	30.0
5	Total Nitrogen	IS 3025(P-34)-1986	mg/L	7.94	100.0
6	Ammonical Nitrogen (as N)	IS 3025(P-34)-1986	mg/L	0.76	50.0
7	Total Hardness as CaCO <sub>3</sub>	IS 3025(P-21)-2009	mg/L	421.97	-
<b>BIOLOGICAL PARAMETERS</b>					
8	Baccol Coliforms	IS 1622-1981	MPN/100 ml	80	-


**Disclaimer:**  
All the direct test parameters are carried out with the sample in received condition. The results relate only to the items tested. This report is valid strictly for the sample submitted for analysis to NAWaL Analytical Laboratories and shall not be used as any representative extrapolated to any other product/property made out of this sample. NAWaL Analytical Laboratories is not responsible for any deterioration in quality or quantity of the product due to the nature of the product or during transit.

**Note:**  
\* Data provided by the Customer. The information provided by customer may affect the validity of test result.

  
 Authorized Signatory  
 V. Kishor  
 Dy. Tech. Manager Microbiology

  
 HOSUR  
 Ph. 245641  
 End of Report

  
 Authorized Signatory  
 S. Elanathi  
 Deputy Technical Manager



Page 1 of 1

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 Marketing Office: No.10, 1<sup>st</sup> Floor, The commodity Exchange Building, Plot No: 2, 3 & 4, Sector-19A, Vashi, Navi Mumbai - 400 705, Maharashtra

### Policies:

Ø Our institution has the following policies for conservation of water, recycling of waste water, usage of treated water and water pollution control.

#### 1. Water Conservation Policy

(<https://kalasalingam.ac.in/wp-content/uploads/2021/11/Water-Conservation-Policy.pdf>)

#### 2. Recycle Policy <https://kalasalingam.ac.in/wp-content/uploads/2021/11/Recycle-Policy.pdf>

Ø As per the policies, we have conducted awareness programs on water pollution control in our campus.

Ø Hence in our campus policy and programs for water pollution control have been fully implemented and monitored regularly.