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Ports and
Logistics

Ref No: KPPL/ENV/PPCC/2026/18

Date 28.07.2026

To

The Member Secretary,

Puducherry Pollution Control Committee (PPCC),

Department of Science, Technology & Environment,

3rd Floor, PHB Building, Anna Nagar,

Puducherry- 605005.

Subject: Submitting Environmental statement (Form-V) for the financial year 2025-26-reg

Dear Sir,

As per the Environmental (Protection) Rule 1986 sub rule 14, the annual Environmental Statement for the financial year 2025-26 in form V is submitted to your good office for your kind records. The copy of Form V is enclosed with your records please.

Enclosure:

1.Form V

Thanking You

Yours Faithfully

For Karaikal Port Private Limited

Capt. Sachin Srivastava
COO – Karaikal Port

Received T. Vatsan 28/07/26
Government of Puducherry
Department of Science Technology & Environment
Puducherry Pollution Control Committee
469, PHB Building Bharathiyar Road
Nanna Nagar, Karaikal - 609 605

Karaikal Port (P) Ltd
T R Pattinam
Khezhavanjoor
Karaikal 609 606
Puducherry, India
CIN: U45203PY2006PTC001945

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Fax +91 4368 263 410
investor.apsezl@adani.com
www.adaniports.com

Registered Office: Adani Corporate House, Shantigram, Near Vaishno Devi Circle, S G Highway, Khodiyar, Ahmedabad 382 421, Gujarat, India

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Form V
(See rule 14 of Environment (Protection) Rules, 1986)

Environmental Statement for the Financial year ending the 31st of March 2026

PART – A

(i) Name and Address of the owner/occupier of the industry operation or process	:	Karaikal Port Private limited, Keezhvanjore Village. T.R Pattinam-609606. Phone: +91 4365 256600 Fax: +91 4365 256603
(ii) Industry category Primary – (STC Code) Secondary – (SIC Code)	:	**Red - Industrial Category: Infrastructure** **Secondary: Minor Port (Port-Service)**
(iii) Production capacity – Units	:	21.5 MMTPA (Cargo handling) (Details attached as **Annexure-I**)
(iv) Year of Establishment	:	2006
(v) Date of last environmental statement submitted	:	07.08.2025

PART - A

Water and Raw Material Consumption
Raw Material Consumption:

***(i)* Water consumption m^3/day**

Process : 172 m^3
Cooling : NIL
Domestic : 77.46 m^3/Day
(details attached **as Annexure-II)**

Name of Products	**Process water consumption per unit of product output - Annexure II**	
	During the previous financial year 2024-2025	**During the current financial year 2025-2026**
	(1)	(2)
Domestic & Operational	248 m^3/year	249m^3/year

(*ii*) Raw material consumption: Not applicable

Materials handling	**Name of Products**	**Consumption of raw material per unit of output**	
		During the previous financial year	**During the current financial year**
Not Applicable			

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART – C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

(1) Pollutants	**Quality of Pollutants discharged (mass/day)**	**Concentrations of pollutants discharges (Mass/volume)**	**Percentage of variation from prescribed standards with reasons**
(a) Water		Analysis made on water, Air and Noise level monitoring through M/s Chennai Mettex lab private ltd Chennai (Accredited to MoEF &CC) is furnished as Annexure - III	Attached
(b) Air		Analysis made on Air and Noise level monitoring through M/s Chennai Mettex lab private ltd Chennai (Accredited to MoEF &CC) is furnished as Annexure -III	Attached

PART – D

Hazardous Wastes

(As specified under Hazardous and Other Wastes (Management, Handling and Transboundary Movement) Rules, 2016) details attached as Annexure IV

Hazardous Wastes	**Total Quantity (MT)**	
	During the previous Financial Year 2024-2025	**During the current Financial Year 2025-2026**
3.1 Schedule I cargo residue, washing water and sludge containing oil	NIL	40.4
3.3 Schedule I Sludge and filters contaminated with oil	186.53	147.11
3.4 schedule I Ballast water containing oil from Ship	NIL	NIL
5.1 Schedule I Used/ Waste oil	1.58	3.27
5.2 schedule I Waste residues containing oil (including foam pigs)	NIL	NIL

Battery Wastes

(As specified under Battery Waste Management Rules, 2022 Rules, Details attached as Annexure V.

Batteries Wastes	**Total Quantity (Nos)**	
	During the current Financial Year 2024-2025	**During the current Financial Year 2025-2026**
Batteries waste	376	Nil

E. Wastes **Annexure VI**

(As specified under E.Waste Management Rules, 2022 Rules,

E. Wastes	**Total Quantity (Kg.)**	
	During the current Financial Year 2024-2025	**During the current Financial Year 2025-2026**
E-waste	3400	Nil

PART – E

Annexure VII

Solid Wastes

Solid Wastes	**Total Quantity**	
	During the previous financial year 2024-2025	**During the current financial year 2025-2026**
(a) From process	NIL	NIL
(b) From pollution control facilities	NIL	Nil
(C) Quantity recycled or re-utilized within the unit	6 TPA	7.6 TPA
(d) Sold (domestic waste) Disposed	106.96 TPA	105.42

PART – F

Please specify the characteristics (in terms of consumption of quantum) of hazardous as well as solid waste and indicate disposal practice adopted for both these categories of wastes.

Waste Categories	**Quantity in MT**	**Disposal Method**
3.1 Schedule I Chemical sludge from wastewater Treatment	40.4	Authorized Recycler
3.3 Schedule I Sludge and filters contaminated With oil	147.11	Authorized Recycler
3.4 schedule I Ballast water containing oil from Ship	NIL	Authorized Recycler
5.1 Schedule I Used/ Waste oil	3.27	Authorized Recycler
5.2 schedule I Waste residues containing oil (including foam pigs)	NIL	Authorized Recycler
Batteries waste	Nil	Authorized Recycler
E-waste	Nil	Authorized Recycler

PART – G

Impact of the pollution reduction measures taken on conservation of natural resources and on the cost of Environmental protection.

ENVIRONMENTAL EXPENDITURE FOR THE YEAR 2025-26

S.No	Environmental Expenditure Details	Amount (Rs)
1	Sewage Treatment Plant operation and maintenance	120000
2	Monitoring, ambient Air quality, noise Pollution & Potable water quality	3092500
4	Garbage waste collection and transportation	550000
5	Annual maintenance of all gardens & Maintenance of planted avenue trees	900000
6	Truck mounted Sweeping machine operation and maintenance	789000
7	CAAQMS maintenance charges	1800000
8	Road wetting	8400000
9	DSS, DSDF and Sprinkler operation	180000
10	Road and railway cleaning	2400000
11	World Environmental day celebration	50000
12	Wind screen Installation	40000000
	Total	58281500

PART – H

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

Protection and Control of natural resources Water Conservation

- Water Conservation

Introducing sensor type flashing units in restrooms= 0.5 KLD

0.5x 365= 182kl/ year

- ✓ Total volume of STP treated water, we have recycled 7630 KL during the past two years. ETP water is being used 7667 .

Rainwater Harvesting =607 KL

Total water Conserved -15904 KL

Energy Conservation:

- LED lighting Changed:

S.NO	HMT NO	DESCRIPTION	EXISTING LIGHT FITTING LOAD+LOSS in WATTS	NEW LED LIGHT FITTING LOAD	ENERGY SAVING PER FITTING	NO. OF REPLACEMENT	SAVING PER HOUR	SAVING PER DAY	SAVING PER YEAR
1	HMT 1	LED CONVERSION FROM HPSV	840	500	340	18	6.12	73	26806
2	HMT 6	LED CONVERSION FROM HPSV	840	500	340	18	6.12	73	26806
3	HMT 19	LED CONVERSION FROM HPSV	840	500	340	16	5.44	65	23827
4	HMT 22	LED CONVERSION FROM HPSV	840	500	340	16	5.44	65	23827
5	HMT 9	LED CONVERSION FROM HPSV	840	500	340	18	6.12	73	26806
6	HMT 4	LED CONVERSION FROM HPSV	840	500	340	18	6.12	73	26806
ENERGY SAVING THROUGH LED CONVERSION FOR 6 NOS. OF HIGH MAST TOWERS									**154877**

- New LED lighting changed & Energy saved = 154877 Units
- Solar Power Contribution = 1168968 Units
- Total Energy saving Contribution =13.23 lakhs Units

Green Belt Development:

- Over 3.2 lakhs of trees are about 80 different species such as Casuarina, Neem, Badam, Nerium, Asoka, etc.
- Three Tier GBD System in around the periphery
- 50,000 Sq Ft Mexican Grass Lawns developed at multiple

- locations
- 6000 Sq Ft Nursery in Place
- 8000 Sq Ft vegetable garden in Place
- In-House Composting Yard

PART -H

Additional measures for Environmental Improvement		
Sl.No	Initiative	Initiative and sub-activities details
1	Tree plantation	Green belt and Tree plantation initiated for the entire Port area.
2	Compost	Generated Organic waste is converting to Compost & all so planed for compost at our Port premises.
3	Installation of Catalyser	Port has installed tugboat catalyser to reduce the fuel consumption.
4	Shore power to Tugboats	Shore power connection to Tugboats contributes fuel saving and CO_2 Emission
5	Sensor & aerator type taps introduced	Sensor & aerator-based taps are introduced in washroom to reduce the water consumption

PART – I

Any other particulars for improving the quality of the environment:

- Environmental monitoring is Planned, and scientific way of monitoring is carried out for air, water, noise level.
- Innovative Cleaner technology – catalytic converter **has installed in tugboat diesel engines** to reduce fuel consumption - hydrocarbon and carbon monoxide emissions.
- Plastic waste ban at our port premises.

Annexure -I

Cargo Handling Capacity in MMTPA:

S.No	Cargo	Capacity in MMTPA
1	Coal	12.5
2	Cement in Bulk	1
3	Break Bulk	4.5
4	Edible Oil	2.5
5	Crude & Petroleum	1
6	Total	21.5

Cargo handled during the financial year 2026-2026

Karaikal Port Private limited		
Cargo Handling for the Financial Year 25-26		
Sl. No.	Cargo	MAR'26
1	(COAL)	10
2	(Fertilizer)	0.4
3	(Limestone)	0.5
4	(Slag)	0.5
5	(Bitumen)	0
6	(Gypsum)	0.2
7	(Cement)	0
8	(Iron Ore)	0.3
9	(Project)	0
10	(Wood Pulp)	0.005
11	(Wood Chips)	0.04
12	(Edible Oil)	0.018
13	(Crude)	0
14	(Steel)	0
TOTAL		12

Annexure II

WATER CONSUMPTION FOR THE FINANCIAL YEAR 2025-2026

Water consumption 2025-2026		
Sl No	**Month**	**Water Consumption**
1	**Apr-25**	**8653**
2	**May-25**	**5859**
3	**Jun-25**	**8409**
4	**Jul-25**	**10524**
5	**Aug-25**	**9553**
6	**Sep-25**	**6087**
7	**Oct-25**	**6082**
8	**Nov-25**	**5794**
9	**Dec-25**	**5569**
10	**Jan-26**	**6833**
11	**Feb-26**	**8634**
12	**Mar-26**	**9059**
	Total	**91056**

Per day Average water consumption for domestic – 77.46m^3/Day

Average water consumption domestic per year - 28272 m^3/year

Operational Purpose – 172 m^3

Average water consumption process per year - 62780 m^3/year

Karaikal Port Private Limited – Marine Sediment Results

Karaikal Port Private Limited 3rd Party Harbour Basin Sediment Results 2025-2026														
Parameters	**Unit**	**Procedure**	**Apr-25**	**May-25**	**Jun-25**	**Jul-25**	**Aug-25**	**Sep-25**	**Oct-25**	**Nov-25**	**Dec-25**	**Jan-26**	**Feb-26**	**Mar-26**
Sample on			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°49'54.93"**	**N 10°50'08.15"**	**N 10°50'15.18"**	**N 10°50'13.74"**	**N 10°50'14.82"**	**N 10°49'54.91"**	**N 10°49'13.74"**	**N 10°50'13.23"**	**N 10°50'14.03"**	**N 10°50'06.63"**	**N 10°49'54.89"**	**N 10°49'45.59"**
Longitude:			**E 79°51'01.82"**	**E 79°50'57.13"**	**E 79°50'54.72"**	**E 79°50'55.06"**	**E 79°50'55.27"**	**E 79°51'02.43"**	**E 79°50'55.06"**	**E 79°50'54.68"**	**E 79°50'55.24"**	**E 79°50'56.07"**	**E 79°51'01.56"**	**E 79°51'34.85"**
pH @ 25°C (1:10 ratio)	-	20 Part 26-1987 (electromagnetic me	7.43	7.35	7.52	7.46	7.9	7.59	7.5	7.52	7.28	7.58	7.49	7.38
Iron as Fe	%	USEPA 3050 B -1996 & USEPA 6010C - 2000	3.1	1.59	2.08	3.29	3.95	3.06	3.14	2.09	2.5	2.31	3.31	2.28
Zinc as Zn	mg/Kg		48.3	23.8	47.7	94.3	118	88.7	56.24	70.32	68.4	51.8	81.3	58.7
Manganese as Mn	mg/Kg		761	475.9	671	693	638	625	339	443	362	367	637	464.68
Cadmium as Cd	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/Kg		60.5	25.8	32.2	62.4	85	48.7	22.6	33.1	17.5	25.1	56.8	46.11
Mercury Hg	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/Kg	APHA 24th Edn. 2023 – 4500 NO2-B	0.64	0.56	0.587	0.49	0.68	0.53	0.58	0.65	0.74	0.57	0.36	0.32
Nitrate as NO_3	mg/Kg	APHA 24th Edn. 2023 – 4500 NO2-B	716	503	804	739	574	582	700	653	668	603	729	736
Free Ammonia as NH_3	mg/Kg	APHA 24th Edn. 2023 – 4500 NO2-B,C	3.69	4.42	3.82	3.64	4.38	2.92	3.94	3.76	3.96	2.83	3.37	3.48
Total Nitrogen	mg/Kg	IS : 10158 - 1982	994	1009	985.6	983	963	931	890	938	876	901	964	968
Inorganic Phosphate	mg/Kg	IS : 10158 - 1982	396	513	486	488.7	518	526	357	441	476	459	419	298.26
Total Phosphate as P	mg/Kg	IS : 10158 - 1982	402	518	499	497	527	529	361	453	473	476	426	306.87
Silica as SiO_2	%	IS: 1917 Part-3 – 1992	60.04	69.34	59.65	62.94	59.96	59.36	58.68	60.87	54.2	60.37	62.81	64.86
Oil & Grease	mg/Kg	USEPA 9071 B - 1998	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium as Mg	mg/Kg	USEPA 3050 B -1996 & USEPA 6010C - 2000	11056	8202	9834	12693	15648	12924	9192	10234	8670	11023	11834	9287
Nickel as Ni	mg/Kg		22.5	BDL	18.7	43.8	49.9	48.9	25.81	32.6	42.6	37.3	40.27	21.27
Lead as Pb	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.69
FAUNAL GROUP			**POPULATION (Nos./m^2)**											
MACROBENTHOS														
Rotaliidae,Bolivintidae,Hauerinidae,Gastropoda & Bivalvia, Nematodes & Crustaceans			160	160	150	160	150	150	130	150	140	130	150	160
MEIOBENTHOS														
Nematodes,Foraminifera sp, Gastropoda Larvae, Bivalvia Larvae & Fish eggs.			730	740	730	730	710	720	720	710	680	650	680	690
Note: BDL: Below Detection Limit **DL**: Detection Limit														

Karaikal Port Private Limited 3rd Party Break Water Sediment Results 2025-2026

Parameters	Unit	Procedure	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Sample on			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	21.01.2026	11.02.2026	10.03.2026
Latitude:			**N 10°50'21.13"**	**N 10°50'21.64"**	**N 10°50'22.56"**	**N 10°50'21.52"**	**N 10°50'19.46"**	**N 10°50'20.75"**	**N 10°50'21.52"**	**N 10°50'20.76"**	**N 10°50'19.81"**	N 10°50'20.81"	N 10°50'20.44"	N 10°50'19.83"
Longitude:			**E 79°51'19.58"**	**E 79°51'22.52"**	**E 79°51'21.63"**	**E 79°51'23.86"**	**E 79°51'18.29"**	**E 79°51'15.32"**	**E 79°51'23.86"**	**E 79°51'22.93"**	**E 79°51'16.19"**	E 79°51'21.92"	E 79°51'21.30"	E 79°51'20.57"
pH @ 25°C (1:10 ratio)	-	IS:2720 Part 26-1987 (Reaff:2016)	7.32	7.28	7.44	7.52	7.84	7.28	7.56	7.59	7.21	7.38	7.56	7.46
Iron as Fe	%	USEPA 3050 B -1996 & USEPA 6010C - 2000	3.08	1.61	2.97	3.29	3.23	3.01	3.09	2.14	2.58	2.19	3.29	2.15
Zinc as Zn	mg/Kg		49.1	25.8	41.1	89.6	118	91.6	56.3	61.7	79.8	57.9	77.3	58.1
Manganese as Mn	mg/Kg		755	579	632	987	642	635	326	477	348	391	654	362.77
Cadmium as Cd	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/Kg		61.1	24.3	31.5	63.7	96	49.2	22.6	28.9	18.62	24.3	26.9	45.58
Mercury Hg	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/Kg	APHA 23rd Edn. 2017 – 4500 NO_2-B	0.59	0.53	0.59	0.56	0.82	0.49	0.63	0.68	0.87	0.55	0.38	0.36
Nitrate as NO_3	mg/Kg	APHA23rd Edn. 2017 – 4500 NO_3-B	703	498	710.9	764	596	591	696	683	625	623	751	746
Free Ammonia as NH_3	mg/Kg	APHA 23rd Edn. 2017 – 4500 NH_3-B,C	3.87	4.27	3.69	3.72	4.07	2.98	3.82	3.76	4.16	2.71	3.22	3.64
Total Nitrogen	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	966	1027	999.8	974	999.7	947	979	957	836	893	948	968
Inorganic Phosphate	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	398	509	492	501	512	519	358	451	484	468	441	297.86
Total Phosphate as P	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	404	513	510	506	520	524	361	463	489	486	447	304.64
Silica as SiO_2	%	IS: 1917 Part-3 – 1992 (Reaff: 2005)	59.4	66.89	60.36	60.12	60.28	60.3	60.1	62.34	51.4	59.37	63.54	65.46
OIL & Grease	mg/Kg	USEPA 9071 B - 1998	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium as Mg	mg/Kg	USEPA 3050 B -1996 & USEPA 6010C - 2000	10908	8187	9779	12987	13824	12578	9203	10327	8692	11087	11734	9109
Nickel as Ni	mg/Kg		24.8	BDL	15.1	41.7	45.3	50.2	25.62	42.8	35.2	37.8	39.5	21
Lead as Pb	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FAUNAL GROUP			**POPULATION (Nos./m)**											
MACROBENTHOS														
Rotaliidae, Bolivintidae, Hauerinidae, Gastropoda & Bivalvia, Nematodes & Crustaceans			170	180	180	170	170	160	170	160	150	150	160	160
MEIOBENTHOS														
Nematods, Foraminifera sp, Gastropod Larvae, Bivalves Larvae & Fish eggs			740	750	745	740	720	730	740	720	690	670	710	720

Note: BDL: Below Detection Limit **DL**: Detection Limit

Karaikal Port Private Limited 3rd Party Port Entrance Channel Sediment Results 2025-2026

Parameters	Unit	Procedure	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Sample on			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°50'21.16"**	**N 10°50'18.13"**	**N 10°50'23.12"**	**N 10°50'21.53"**	**N 10°50'22.37"**	**N 10°50'20.02"**	**N 10°50'21.53"**	**N 10°50'22.45"**	**N 10°50'21.86"**	**N 10°50'20.81"**	**N 10°50'21.17"**	**N 10°50'56.38"**
Longitude:			**E 79°51'34.23"**	**E 79°51'35.68"**	**E 79°51'32.55"**	**E 79°51'23.88"**	**E 79°51'36.25"**	**E 79°51'34.27"**	**E 79°51'23.88"**	**E 79°51'24.61"**	**E 79°51'23.95"**	**E 79°51'30.27"**	**E 79°51'32.96"**	**E 79°52'03.57"**
pH @ 25°C (1:10 ratio)	-	720 Part 26-1987 (electrometric meth	7.11	7.31	7.68	7.24	7.92	7.54	7.62	7.52	7.35	7.34	7.29	7.32
Iron as Fe	%	USEPA 3050 B -1996 & USEPA 6010C - 2000	3.09	1.64	2.67	3.31	3.42	2.97	2.14	2.11	2.48	2.32	3.14	3.98
Zinc as Zn	mg/Kg		48.7	24.6	39.4	86.7	118	81.4	56.1	62.1	77.69	58.6	89.34	69.09
Manganese as Mn	mg/Kg		749	471.5	654	874	635	615	325	439	321	394	627	366.43
Cadmium as Cd	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/Kg		61.5	24.9	30.8	61.4	82	47.3	22.5	27.3	20.6	22.8	37.64	46.5
Mercury Hg	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/Kg	APHA 23rd Edn. 2017 – 4500 NO_2-B	0.63	0.52	0.64	0.47	0.72	0.51	0.68	0.62	0.79	0.79	0.38	0.41
Nitrate as NO_3	mg/Kg	APHA23rd Edn. 2017 – 4500 NO_3-B	699	512	723	811	586	574	702.8	713	654	654	754	758
Free Ammonia as NH_3	mg/Kg	APHA 23rd Edn. 2017 – 4500 NH_3-B,C	3.81	4.11	3.86	4.01	4.12	2.94	3.78	3.84	4.02	4.02	3.47	3.52
Total Nitrogen	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	974	996	984	1014	984	913	956	921	860	860	977	986
Inorganic Phosphate	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	408	517	492	482	584	537	356	428	470	470	429	200.17
Total Phosphate as P	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	411	522	508	487	509	541	360	436	474	474	435	207.04
Silica as SiO_2	%	IS: 1917 Part-3 – 1992 (Reaff: 2005)	58.6	67.98	58.64	61.48	61.47	57.43	59.47	61.34	52.69	52.69	65.87	66.14
OIL & Grease	mg/Kg	USEPA 9071 B - 1998	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium as Mg	mg/Kg	USEPA 3050 B -1996 & USEPA 6010C - 2000	11058	8345	9530	12874	14258	14578	9200	10597	8654	11254	11987	9145
Nickel as Ni	mg/Kg		23.3	BDL	12.6	39.7	49.5	49.7	22.53	43	38	37.6	43.6	21.51
Lead as Pb	mg/Kg		BDL	BDL	BDL	2.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.04
FAUNAL GROUP			**POPULATION (Nos./m^2)**											
MACROBENTHOS														
Rotaliidae, Bolivintidae, Hauerinidae, Gastropoda & Bivalvia, Nematodes & Crustaceans			180	200	190	180	180	170	170	160	150	150	160	170
MEIOBENTHOS														
Nematodes, Foraminifera sp, Gastropoda Larvae, Bivalvia Larvae & Fish eggs.			760	770	760	750	750	740	750	730	700	690	720	740

Note: BDL: Below Detection Limit **DL**: Detection Limit

Karaikal Port Private Limited 3rd Party Effluent Treatment Plant Outlet Water Analysis Results 2025 - 2026																	
Sl.No.	Test Parameters	Unit	Protocol	CPCB Max. Permissible Limits for (Marine Coastal Areas)	Date of Sampling												
					11.04.2025	21.05.2025	18.06.2025	17.07.2025	22.08.2025	16.09.2025	15.10.2025	20.11.2025	18.12.2025	21.01.2026	11.02.2026	10.03.2026
1	pH @ 25°C	-	IS 3025 Part 11 - 2022 (electrometric method)	5.5 to 9.0	7.14	7.89	7.3	8.6	7.8	6.69	7.53	7.13	7.53	7.76	8.13	7.61
2	Total Dissolved Solids	mg/l	IS 3025 Part 17 - 2022	100 mg/l	1174	1638	968	936	2186	2083	2053	5490	1824	4880	2318	2946
3	Total Suspended Solids	mg/l	IS 3025 Part 16 -2023	--	14	10	13	13	17	14	14	12	94	14	16	76
4	Oil & Grease	mg/l	IS 3025 Part 32 -1988 (Argentometric Method)	--	3	BDL	4	6	5	4	6	3	14	4	6	8
5	COD	mg/l	IS 3025 Part 24/Sec 1 - 2022 (Turbidity method)	--	21	18	63	25	26	23	32	24	226	32	39	69
6	BOD @ 27°C for 3 days	mg/l	IS:3025 Part 39:2021	20 mg/l	4.0	4.0	14	4	7	5.0	9	6.0	77	8	12.0	11
7	Total Kjeldahl Nitrogen	mg/l	IS 3025 Part 44 - 2023	100 mg/l	4	8	BDL	8.6	6.3	10	5.8	10	144.9	9	6.3	6.4
8	Sulphate as SO_4	mg/l	IS 3025 Part 58-2023	250 mg/l	139.8	162	104	168.9	154	481	132	469	287.9	412	158	242
9	Ammonical Nitrogen	mg/l	IS 3025 Part 34 -1988 (Macro-Kjeldahl Method)	--	2.5	6	BDL	6	5.6	8	4.9	6.8	140	6.9	5.6	5.6
10	Chloride as Cl	mg/l	IS 3025 Part 34 -1988 (Titrimetric Method)	--	320.5	450	274	410.9	674	811	624	2794	874.2	1898	682	742
11	Faecal Coliforms	MPN/100ml	APHA 24thEdn. 2023 : 9221 'E'	--	280	70	110	920	<1.8	120	70	120	350	<1.8	110	94
Note : BDL - Below Detection Limit, DL - Detection Limit,MPN - Most Probable Number . NS - Not Specified.																	

Karaikal Port Private Limited 3rd Party Sewage Treatment Plant Outlet Water Results 2025 - 2026																	
Sl.No	Test Parameters	Unit	Protocol	CPCB Limits (On Land for Irrigation)	Date of Sampling												
					10.04.2025	21.05.2025	18.06.2025	17.07.2025	22.08.2025	16.09.2025	15.10.2025	20.11.2025	18.12.2025	21.01.2026	11.02.2026	10.03.2026
1	pH @ 25°C	-	IS 3025 Part 11 - 2022 (electrometric method)	5.5 – 9.0	7.7	7.41	7.47	8.03	7.91	7.55	7.42	7.29	7.53	7.53	7.62	7.28
2	Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	200 mg/l	27	28	22	16	26	26	21	26	28	26	23	21
3	Total Dissolved Solids	mg/l	IS 3025 Part 16 -2023	NS	1698	2490	1608	1848	2391	1686	2167	1746	1748	1628	2137	1591
4	Chloride as Cl	mg/l	IS 3025 Part 32 -1988 (Argentometric Method)	NS	476	596	478	596.8	524	724	502	694	514.8	337	544	598
5	Sulphate as SO_4	mg/l	IS 3025 Part 24/Sec 1 - 2022 (Turbidity method)	NS	196.7	219	192	246.2	126	136	122	147	168.2	104	96.0	176
6	Oil & Grease	mg/l	IS:3025 Part 39:2021	10 mg/l	6	5	6	5	6	7	5	5	6	7	8.0	6
7	BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	100 mg/l	12	14	16	5	14	10	12	15	18	14	14.0	14
8	COD	mg/l	IS 3025 Part 58-2023	NS	47	62	81	29	87	44	94	62	94	69	14	82
9	Total Kjeldahl Nitrogen	mg/l	IS 3025 Part 34 -1988 (Macro-Kjeldahl Method)	NS	14.2	22	10.6	4.6	7.6	19	6.9	16.4	8	18	100	10.4
10	Ammonical Nitrogen	mg/l	IS 3025 Part 34 -1988 (Titrimetric Method)	NS	12	19	9.4	3	6.8	17	6.2	14.2	6	15.6	6.8	9.2
11	Faecal Coliforms	MPN/100ml	APHA 24thEdn . 2023 : 9221 'E'	NS	<1.8	540	43	110	920	540	140	350	94	94	220	280
Note : BDL - Below Detection Limit, DL - Detection Limit, NS - Not Specified, MPN - Most Probable Number.																	

Karaikal Port Private Limited 3rd Party Noise Level Results

Sampling Locations: 1. North Vanjoor 2. Keezha Vanjoor . 3. Nagore Village.

Month		Apr-25			May-25			Jun-25			Jul-25			Aug-25			Sep-25			Oct-25			Nov-25			Dec-25			Jan-26			Feb-26			Mar-26		
Date of Sampling		09.04.2025 to 10.04.2025			19.05.2025 to 20.05.2025			18.06.2025 to 19.06.2025			16.07.2025 to 17.07.2025			21.08.2025 to 22.08.2025			15.09.2025 to 16.09.2025			14.10.2025 to 15.10.2025			19.11.2025 to 20.11.2025			18.12.2025 to 19.12.2025			21.01.2026 to 22.01.2026			11.02.2026 to 12.02.2026			09.03.2026 to 10.03.2026		
S.No	Time	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)
1	**07.00 AM**	45.2	47.2	46.3	45.3	46.8	45.6	46.1	47.3	45.7	44.8	45.9	44.6	46.3	46.8	45.2	45.9	47.2	44.8	44.9	47.6	45.3	45.3	47.1	46.2	46.1	47.5	46.8	45.7	48.1	47.2	44.8	46.2	46.9	45.8	47.2	45.9
2	8	46.4	48.6	48.2	45.9	47.3	47.8	47.8	47.9	46.3	46.2	46.7	45.9	47.2	47.1	46.3	46.7	48.5	46.3	45.6	49.3	46.8	47.1	49.2	47.3	47.3	48.9	48.9	46.9	49.6	49.6	45.2	47.3	48.1	46.3	48.5	46.8
3	9	47.1	50.3	50.9	47.1	49.5	48.2	48.9	49.2	47.8	47.3	47.3	47.3	47.9	48.7	47.8	47.3	49.6	47.2	46.8	50.1	48.2	48.6	50.5	49.5	48.1	50.2	50.7	47.5	50.3	50.3	46.7	48.1	49.6	47.6	51.6	47.2
4	10	47.8	51.6	51.2	47.5	50.3	49.7	48.2	50.3	47.9	48.1	49.5	47.5	48.3	49.1	48.1	48.1	50.1	47.5	48.2	51.8	49.1	49.4	51.6	50.7	48.9	52.4	51.6	47.1	51.7	52.4	47.3	50.6	51.3	47.2	52.8	49.6
5	11	46.2	50.7	50.6	47.9	50.1	50.3	47.6	50.1	48.6	46.9	49.1	47.1	47.5	48.6	47.9	47.9	49.3	47.1	47.3	51.3	47.6	48.6	50.9	48.3	48.2	51.9	50.2	46.3	51.2	51.6	46.1	50.4	50.7	46.9	50.7	48.5
6	**12.00 PM**	46.3	49.6	49.2	46.9	49.5	49.4	48.1	49.8	47.3	46.2	48.3	46.8	46.9	48.2	47.2	48.2	49.0	46.8	47.1	50.9	47.2	48.1	50.3	48.1	47.5	51.3	50.1	46.8	50.9	51.1	44.8	51.8	50.9	46.5	51.9	48.1
7	1	45.9	50.1	49.5	46.2	50.3	49.1	48.5	49.2	47.9	45.1	49.6	46.2	47.1	48.7	48.0	47.6	48.5	47.5	46.8	50.4	48.6	18.8	50.7	49.6	48.3	51.1	49.6	47.5	51.4	52.8	45.7	49.9	51.2	46.9	51.4	50.6
8	2	46.1	51.4	51.7	46.1	50.8	50.3	46.9	50.5	48.2	46.7	48.4	47.3	47.3	49.3	48.2	46.9	48.3	47.2	46.5	51.6	48.3	49.5	49.6	51.5	48.8	50.7	50.7	48.2	52.7	53.9	46.2	49.3	51.9	47.2	52.3	51.7
9	3	45.3	49.7	52.3	45.8	49.4	51.7	47.4	50.7	47.5	46.3	49.1	47.5	47.8	48.1	47.7	46.2	47.8	46.8	46.2	52.9	47.9	47.8	48.9	51.7	48.1	50.2	51.5	47.3	54.3	55.7	45.9	50.2	52.4	47.3	52.7	50.3
10	4	44.8	49.3	50.8	45.1	49.1	50.2	48.3	48.6	47.1	45.8	48.3	46.4	48.5	47.9	47.1	45.8	48.6	46.1	46.7	51.3	47.2	46.9	49.1	48.4	47.3	51.6	50.3	46.4	52.9	53.5	44.6	50.7	51.8	46.6	51.5	49.2
11	5	46.2	50.6	50.1	45.7	49.7	49.6	49.1	48.1	48.3	46.2	47.6	47.5	48.9	48.2	46.9	46.9	49.1	45.9	47.2	53.4	47.8	47.9	50.9	47.9	48.5	52.7	51.2	47.1	53.4	53.9	45.3	51.6	52.3	47.2	52.2	50.6
12	6	47.8	51.2	52.4	46.1	50.3	50.9	49.5	50.4	49.6	46.9	48.2	48.1	48.1	48.7	47.8	47.5	49.3	47.1	48.3	52.7	48.3	48.6	52.4	50.3	48.8	53.4	52.7	48.3	54.5	54.8	46.8	52.3	52.9	47.8	53.4	52.4
13	7	48.9	50.8	53.6	45.8	50.1	51.3	48.8	50.6	50.3	47.5	48.7	48.7	47.2	47.5	48.4	47.0	47.3	48.6	47.5	50.9	49.5	48.3	53.1	52.7	47.9	52.1	53.8	48.5	55.1	55.2	47.2	51.4	53.4	48.1	52.9	52.9
14	8	48.2	50.4	53.1	44.3	49.7	50.7	48.1	49.7	50.7	46.2	48.1	47.9	46.3	47.1	48.9	46.2	46.7	48.2	46.1	49.3	50.2	47.1	52.4	51.4	46.2	50.8	51.6	47.1	53.8	54.3	46.1	49.8	52.1	47.3	50.7	51.3
15	9	46.1	50.1	51.7	43.8	48.3	49.2	46.3	48.3	48.5	45.1	47.6	47.3	45.9	45.4	46.7	45.7	45.2	46.2	45.9	47.2	48.3	45.2	48.7	50.9	45.3	49.3	49.8	46.2	50.4	51.7	44.3	47.5	50.6	45.9	48.2	49.7
16	10	44.9	49.3	49.2	43.1	47.6	47.6	45.9	45.9	46.9	44.3	45.3	46.2	45.2	45.1	45.2	44.9	44.9	45.7	45.1	45.6	47.1	44.9	46.2	48.1	44.2	47.1	47.4	44.9	48.2	48.1	42.8	45.1	46.8	44.2	46.3	45.1
17	11	44.2	48.3	47.5	43.2	47.4	46.2	45.3	46.1	45.2	44.1	44.9	44.7	44.8	44.9	44.3	44.3	44.1	44.9	44.6	45.1	46.2	44.1	45.5	46.2	43.9	45.1	44.9	44.1	46.3	45.9	42.1	44.2	44.3	43.5	45.2	44.2
18	**12.00 AM**	42.9	47.2	45.1	42.9	47.0	44.9	44.7	45.3	44.3	42.8	43.5	43.2	43.1	43.5	43.1	42.9	43.8	44.2	44.2	44.8	44.5	42.6	43.9	44.5	42.1	44.6	43.8	42.6	44.7	42.7	41.5	42.9	41.8	42.9	43.1	41.6
19	1	42.5	46.5	43.8	42.5	46.2	43.4	43.8	44.7	42.7	42.3	42.8	42.5	42.5	43.1	42.8	42.5	42.6	43.5	43.8	43.9	42.9	41.7	42.6	42.9	41.5	42.8	42.1	40.3	42.3	40.3	40.8	40.6	40.2	41.6	41.8	40.8
20	2	42.1	44.1	42.6	42.1	45.3	42.7	43.2	43.8	42.6	41.6	42.1	41.3	42.2	43.4	41.6	41.6	42.9	42.8	43.5	43.1	42.5	41.3	42.1	42.5	40.4	41.6	41.3	39.7	40.7	40.1	38.2	40.1	39.7	40.8	39.8	40.9
21	3	42.6	43.6	42.1	42.3	44.6	43.1	42.5	44.6	43.4	41.2	41.7	40.8	41.9	43.8	41.4	42.7	43.5	41.9	42.9	43.5	42.1	40.5	42.4	42.1	39.6	41.7	40.7	38.5	40.1	41.6	37.4	40.8	40.2	39.1	40.2	41.3
22	4	43.1	42.9	41.6	43.2	43.1	42.8	43.9	44.9	43.8	40.8	42.6	41.3	42.7	44.9	41.2	43.8	44.6	42.3	43.1	44.2	43.4	41.2	43.8	43.4	40.1	42.8	40.2	39.6	41.9	42.7	38.1	41.3	40.9	39.7	41.9	43.7
23	5	44.8	43.1	42.3	44.7	43.7	43.2	44.7	45.2	45.3	42.3	43.8	42.9	44.8	45.2	43.1	44.9	45.7	43.6	44.5	45.6	45.2	42.7	45.9	45.2	42.8	44.5	42.6	41.7	43.7	44.1	40.5	42.7	43.5	41.8	44.7	44.6
24	6	45.9	45.8	44.9	45.5	45.3	44.5	46.2	45.8	45.9	43.7	44.3	44.5	45.3	45.8	44.8	45.1	46.1	45.1	45.2	46.7	46.7	44.1	46.5	46.7	43.9	46.3	45.3	43.5	47.1	45.9	42.9	45.9	45.1	44.2	47.4	46.1

Karaikal Port Private Limited 3rd Party Surface Water(Pravadayanar River) Analysis Results May 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**21.05.2025**
pH @ 25°C	-	IS:3025 Part 11-2022 (Electrometric method)	7.97
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	31588
Total Hardness as $CaCO_3$	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	5000
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	4.45
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	BDL
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	22112
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	19.2
Total Chromium as Cr	mg/l	IS 3025 Part 65: 2022	0.14
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	11985.6
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	0.02
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.54
Boron as B	mg/l	IS 3025 Part 65: 2022	0.51
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	1.87
Total Arsenic as As	mg/l	IS 3025 Part 65 : 2022	0.031
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.4
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	0.012
Nitrate as NO3	mg/l	IS 3025 Part 34 - 1988 (Chromotropic acid method)	35
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	424
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	4994
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	1649
Total Alkalinity as $CaCo_3$	mg/l	IS 3025 Part 23 - 2023	162
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	5.7
Total Nitrogen as N	mg/l	IS 3025 Part 73 - 2021	9.5
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride metho	0.23
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	9
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	0.068
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	2.5
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	<1.8
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent
Total Coliform	NA	IS 15185:2016 Reaff. 2021	70
Vibrio cholerae	Qualitative	APHA 24th Edn.2023 - 9278 B	Absent
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	150
Note: MPN : Most Probable Number: BDL: Below Detection Limit , DL: Detection Limit, APHA – American Public Health Association. CFU - Colony Forming Unit. <1.8 MPN/100 ml & <1 Cfu/ml can be taken as 'No Microbial Growth'			

Karaikal Port Private Limited 3rd Party Surface Water(Pravadayanar River) Analysis Results Nov 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**20.11.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.17
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	3
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	4
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	BDL
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	6
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.34
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	6.5
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	17
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	379
Boron as B	mg/l	IS 3025 Part 65: 2022	0.06
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	BDL
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	87
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	1.84
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	95
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	2.7
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	236
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	0.27
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	37.6
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.33
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Arsenic as As	mg/l	IS 3025 Part 65 : 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Chromium as Cr	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	83
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	14
Nitrate Nitrogen as NO3 - N	mg/l	APHA 23rd Edition 2017 - 4500 -NO3 B	3.8
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	920
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	170
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Present/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	330
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Surface Water (Vettar River Water) Analysis Results May 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**21.05.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.8
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	38301
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	4.82
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	12767.3
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	BDL
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	21.2
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Arsenic as As	mg/l	IS 3025 Part 65 : 2022	0.032
Total Chromium as Cr	mg/l	IS 3025 Part 65: 2022	0.14
Copper as Cu	mg/l	IS 3025 Part 65: 2022	0.03
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.64
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	1.79
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Boron as B	mg/l	IS 3025 Part 65: 2022	0.53
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.67
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	0.013
Nitrate as NO3	mg/l	IS 3025 Part 34 - 1988 (Chromotropic acid method)	35
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	424
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	4994
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	1649
Total Alkalinity as CaCo3	mg/l	IS 3025 Part 23 - 2023	162
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	5.7
Total Nitrogen as N	mg/l	IS 3025 Part 73 - 2021	9.5
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.23
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	9
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	0.068
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	2.5
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	<1.8
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	70
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Absent/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	200
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Surface Water (Vettar River Water) Analysis Results Nov 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**20.11.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.56
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	4
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	9
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	BDL
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	10
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.41
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	6.1
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	22
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	858
Boron as B	mg/l	IS 3025 Part 65: 2022	0.09
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	BDL
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	117
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	4.02
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	7
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	210
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	526
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	0.52
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	82
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.42
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Arsenic as As	mg/l	IS 3025 Part 65 : 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Chromium as Cr	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	190
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	20
Nitrate Nitrogen as NO3 - N	mg/l	APHA 23rd Edition 2017 - 4500 -NO3 B	5.4
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	540
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	94
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Present/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	260
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Surface Water (Keezha Vanjore Pond Water) Analysis Results Jun 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**18.06.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.1
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	2308
Boron as B	mg/l	IS 3025 Part 65: 2022	0.51
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	6
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	524
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	1.41
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.84
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	0.03
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	28
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	0.008
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	163
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	386
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	24.6
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	410
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	27.8
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Total Nitrogen as N	mg/l	IS 3025 Part 73 - 2021	30.6
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Total Arsenic as As	mg/l	IS 3025 Part 65 : 2022	0.047
Total Chromium as Cr	mg/l	IS 3025 Part 65: 2022	0.2
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	113
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	0.01
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.4
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	2810
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Nitrate as NO3	mg/l	IS 3025 Part 34 - 1988 (Chromotropic acid method)	29
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	26
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	341
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	3.8
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	27
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	0.069
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	920
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	540
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Absent/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	22000
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Surface Water (Keezha Vanjore Pond Water) Analysis Results Nov 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**20.11.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.74
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	6
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	10
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	8
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	29
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.33
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.4
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	34
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	2420
Boron as B	mg/l	IS 3025 Part 65: 2022	0.58
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	BDL
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	216
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	15.68
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	300
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	12
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	1460
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	0.97
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	269
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.64
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Arsenic as As	mg/l	IS 3025 Part 65 : 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Chromium as Cr	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	0.04
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	675
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	60
Nitrate Nitrogen as NO3 - N	mg/l	APHA 23rd Edition 2017 - 4500 -NO3 B	21
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	920
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	170
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Present/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	330
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Harbour Basin Marine Water Results 2025-2026

Characteristics Test	Unit	Protocol	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Date of Sampling			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°49'54.93"**	**N 10°50'08.15"**	**N 10°50'15.18"**	**N 10°50'13.74"**	**N 10°50'14.82"**	**N 10°49'54.91"**	**N 10°50'13.74"**	**N 10°50'13.23"**	**N 10°50'14.03"**	**N 10°50'06.63"**	**N 10°49'54.89"**	**N 10°49'45.59"**
Longitude:			**E 79°51'01.82"**	**E 79°50'57.13"**	**E 79°50'54.72"**	**E 79°50'55.06"**	**E 79°50'55.27"**	**E 79°51'02.43"**	**E 79°50'55.06"**	**E 79°50'54.68"**	**E 79°50'55.24"**	**E 79°50'56.07"**	**E 79°51'01.56"**	**E 79°51'34.85"**
Salinity	%	By Argentometric Titration	4.19	3.78	4.14	4.07	3.61	3.83	3.56	3.93	3.89	3.77	3.96	3.85
pH @ 25°C	-	IS:3025 Part 11-2022 (electromagnetic method)	7.51	7.1	7.35	7.9	7.54	7.42	7.91	7.25	7.34	7.17	7.19	4.49
Temperature	°C	IS:3025 Part 9-2023	31	27	29	29	29	28.5	28	26	27	25	24	28
Electrical Conductivity	µmhos/cm	IS:3025 Part 14- 2013	47020	42960	47810	60500	44180	42700	44860	42690	45200	42910	40380	45300
Turbidity	NTU	IS:3025 Part 10-2023	9.8	3.2	7.2	1.29	4.86	7.1	3.62	6.2	2.2	1.7	2.2	5.7
Total Suspended Solids	mg/l	IS:3025 Part 17-2022	28	10	21	14	14	24	14	14	16	10	12	21
Total Dissolved Solids	mg/l	IS:3025 Part 16-2023	38950	36984	39760	39266	38476	37840	41440	37010	36948	36084	36388	36920
Dissolved Oxygen	mg/l	IS:3025 Part 38-1989 (Reaff:2019)	5.9	5.3	5.3	5.73	6.2	5.9	6.3	6.4	6.3	6.6	6.1	7
BOD @ 27°C for 3 days	mg/l	IS:3025 Part 44-2023	7	6	4	4	6	6	6.1	6	5	5	4	4
COD	mg/l	IS:3025 Part 58-2023	24	24	21	20	23	27	22	24	20	22	16	23
Chloride as Cl	mg/l	IS:3025 Part 32-1988 (Reaff:2019)	22797.2	20546	22520	22112	21940	20840	21643	21360	21148	20492	21544	20710
Sulphate as SO_4	mg/l	IS:3025 Part 24/Sec-1 - 2022	2110	2144	2416	2235	2186	2212	2134	1994	1884	2134	1932	2216
Sodium as Na	mg/l	IS:3025 Part 45 - 1993 (Reaff:2019)	14960	14286	14719	14026	13596	14496	12574	14492	14864	14968	14070	12860
Calcium as Ca	mg/l	IS:3025 Part 40-1991 (EDTA titrimetric method)	1403	1362	1410	1348	1345	1390	1428	1380	1412	1426	1342	1292
Magnesium as Mg	mg/l	IS:3025 Part 46-2023	1798	1822	1890	1371	1695	1810	1732	1834	1898	1810	1796	1724
Potassium as K	mg/l	IS:3025 Part 45 -1993(Flame photometric method)	989	944	981	928	937	969	873	969	958	949	922	886
Oil & Grease	mg/l	IS:3025 Part 39-2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron as Fe	mg/l	IS:3025 Part 53:2003 (1,10 phenanthroline method)	0.55	0.38	0.52	0.23	0.29	0.53	0.35	0.48	0.52	0.35	0.55	0.55
Zinc as Zn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Manganese as Mn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium as Cd	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Mercury Hg	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/l	IS:3025 Part 34 : 1988	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO_3	mg/l	APHA 24th Edn. 2023 - 4500 NO3 - B	5.26	5.26	6.20	2.96	4.96	6.04	6.23	6.2	6.32	6.42	7.36	5.67
Free Ammonia NH_3	mg/l	IS:3025 Part 34 - 1988 (Nesslerization Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Kjeldahl Nitrogen	mg/l	IS:3025 Part 34-1988 (Macro - Kjedahl Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphate	mg/l	025 Part 31/ Sec 1 - 2022 (Stannous Chloride meth	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silica as SiO_2	mg/l	IS:3025 Part 35-1988(Heterpoly blue method)	0.67	0.57	0.74	0.52	0.69	0.69	0.69	0.59	0.54	0.57	0.52	0.61
Total Coliform	MPN/100ml	APHA 24th Edition 9221 B	350	280	280	430	350	350	350	210	350	430	350	280
Faecal Coliforms	MPN/100ml	APHA 24th Edition 9221 E	94	70	70	210	94	70	<1.8	110	110	280	84	70
PHYTOPLANKTON														
Total Cell Count	Nollit		33,200	33,500	33,900	32,600	32,100	31,900	31,200	32,300	30,400	30,700	31,800	30,700
Total Geneus	Nos		11	11	10	10	10	10	9	9	9	10	10	10
Geneus			Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis
			Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus
			Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Bellerochea Sp
			Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Triceratium sp
			Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Bacillaria sp
			Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Protoperidinim sp
			Protoperdinim sp	Protoperdinim sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Protoperidinim sp	Protoperidinim sp	Protoperidinim sp	Protoperidinim sp	Protoperidinim sp	Ditylum sp
			Ditylum sp	Ditylum sp	Coscinodiscus sp	Coscinodiscus sp	Coscinodiscus sp	Coscinodiscus sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Coscinodiscus sp
			Coscinodiscus sp	Coscinodiscus sp	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Coscinodiscus sp	Coscinodiscus sp	Planktoniella Sol
			Planktoniella Sol	Planktoniella Sol	Rhizosolenia sp	Rhizosolenia sp	Rhizosolenia sp	Rhizosolenia sp				Planktoniella Sol	Planktoniella Sol	Skeletonema costatum
			Rhizosolenia sp	Rhizosolenia sp										

ZOOPLANKTON													
Total Cell Count	Nollit		23,100	23,800	23,500	22,800	21,800	21,900	21,700	22,900	22,500	21,800	23,100	22,900
Total Geneus	Nos		7	7	6	6	6	6	6	6	6	5	6	6
Geneus			Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus
			Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus
			Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella
			Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Isias sp	Isias sp	Isias sp
			Centropages	Centropages	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Oithona sp	Centropages	Centropages
			Dioithiona	Dioithiona	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithona sp		Oithona sp	Oithona sp
			Oithiona sp	Oithiona sp										
ZOOPLANKTON														
Population	No.m^3		33,400	32,900	33,400	32,700	31,200	32,500	29,400	29,400	29,600	28,700	29,100	30,600
Faunal Groups	Nos		5	5	5	5	5	5	5	5	5	5	5	5
Major Groups			Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda
			Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Animalia - Rotifera	Animalia - Rotifera
			Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia - Rotifera	Animalia - Rotifera	Protozoa - Foraminifera	Protozoa - Foraminifera
			Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg
			Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora

Karaikal Port Private Limited 3rd Party Marine Water - Break Water Area Results 2025-2026

Characteristics Test	Unit	Protocol	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Date of Sampling			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°50'21.13"**	**N 10°50'21.64"**	**N 10°50'22.56"**	**N 10°50'21.52"**	**N 10°50'19.46"**	**N 10°50'20.75"**	**N 10°50'21.52"**	**N 10°50'20.76"**	**N 10°50'19.81"**	**N 10°50'20.81"**	**N 10°50'20.44"**	**N 10°50'19.83"**
Longitude:			**E 79°51'19.58"**	**E 79°51'22.52"**	**E 79°51'21.63"**	**E 79°51'23.86"**	**E 79°51'18.29"**	**E 79°51'15.32"**	**E 79°51'23.86"**	**E 79°51'22.93"**	**E 79°51'16.19"**	**E 79°51'21.92"**	**E 79°51'21.30"**	**E 79°51'20.57"**
Salinity	%	By Argentometric Titration	4.05	3.87	4.19	3.96	3.64	3.71	3.54	3.79	3.86	3.82	4.02	3.84
pH @ 25°C	-	IS:3025 Part 11-2022 (electromagnetic method)	7.39	7.27	7.41	7.95	7.84	7.52	7.66	7.34	7.42	7.14	7.05	7.58
Temperature	°C	IS:3025 Part 9-2023	31	29	29	29	29	28.5	28	26	27	25	24	27
Electrical Conductivity	µmhos/cm	IS:3025 Part 14- 2013	46310	43320	48160	60700	44360	41930	44980	41710	45600	43320	41140	45200
Turbidity	NTU	IS:3025 Part 10-2023	2.1	6.1	9.7	1.16	5.26	4.7	3.42	8.9	1.96	2.9	2.9	5.4
Total Suspended Solids	mg/l	IS:3025 Part 17-2022	10	21	29	15	12	14	12	19	22	15	14	17
Total Dissolved Solids	mg/l	IS:3025 Part 16-2023	38620	38620	40118	37952	38547	36984	41359	35920	36142	36348	37094	36860
Dissolved Oxygen	mg/l	IS:3025 Part 38-1989 (Reaff:2019)	6.1	5.7	5.1	6.2	6.1	6.2	6.4	6.2	6.1	5.7	5.3	6.8
BOD @ 27°C for 3 days	mg/l	IS:3025 Part 44-2023	4	8	6	5	6	4	5.7	5	6	8	4	3.6
COD	mg/l	IS:3025 Part 58-2023	17	27	24	21.6	26	18	21	20	22	28	19	22
Chloride as Cl	mg/l	IS:3025 Part 32-1988 (Reaff:2019)	22014.5	21036	22816	21525	22087	20170	20783	20618	20948	20784	21860	20670
Sulphate as SO_4	mg/l	IS:3025 Part 24/Sec-1 - 2022	2014	2206	2520	2219	2219	2060	2183	1862	1842	2262	2036	2190
Sodium as Na	mg/l	IS:3025 Part 45 - 1993 (Reaff:2019)	14519	14494	14979	13164	13764	14046	12694	14026	14148	14220	14510	12920
Calcium as Ca	mg/l	IS:3025 Part 40-1991 (EDTA titrimetric method)	1323	1402	1478	1514	1328	1310	1397	1242	1288	1460	1420	1289
Magnesium as Mg	mg/l	IS:3025 Part 46-2023	1798.2	1845	1920	1738	1617	1720	1784	1710	1684	1842	1872	1704
Potassium as K	mg/l	IS:3025 Part 45 -1993(Flame photometric method)	940	969	996	916	931	917	953	914	936	976	994	891
Oil & Grease	mg/l	IS:3025 Part 39-2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron as Fe	mg/l	IS:3025 Part 53:2003 (1,10 phenanthroline method)	0.45	0.46	0.57	0.29	0.24	0.4	0.36	0.52	0.58	0.44	0.57	0.51
Zinc as Zn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Manganese as Mn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium as Cd	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Mercury Hg	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/l	IS:3025 Part 34 : 1988	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO_3	mg/l	APHA 24th Edn. 2023 - 4500 NO3 - B	5.03	4.3	6.32	3.29	4.64	5.2	5.94	6.17	6.12	6.94	7.62	BDL
Free Ammonia NH_3	mg/l	IS:3025 Part 34 - 1988 (Nesslerization Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Kjeldahl Nitrogen	mg/l	IS:3025 Part 34-1988 (Macro - Kjedahl Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphate	mg/l	3025 Part 31/ Sec 1 - 2022 (Stannous Chloride metho	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silica as SiO_2	mg/l	IS:3025 Part 35-1988(Heterpoly blue method)	0.55	0.62	0.77	0.49	0.64	0.59	0.79	0.54	0.58	0.62	0.59	0.64
Total Coliform	MPN/100ml	APHA 24th Edition 9221 B	220	240	240	350	240	380	280	340	240	350	240	430
Faecal Coliforms	MPN/100ml	APHA 24th Edition 9221 E	70	79	63	84	84	79	170	110	70	63	63	84
								PHYTOPLANKTON						
Total Cell Count	Nollit		34,600	34,700	35,800	34,900	32,500	33,100	33,700	33,100	31,900	31,200	32,300	32,900
Total Geneus	Nos		12	11	11	11	10	11	10	10	10	10	10	10
Geneus			Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis
			Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus
			Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Bellerochea Sp	Bellerochea Sp
			Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Triceratiumsp	Triceratiumsp
			Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Bacillariasp	Bacillariasp
			Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Protoperidinim Sp	Protoperidinim Sp
			Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Ditylum sp	Ditylum sp
			Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Coscinodiscus Sp	Coscinodiscus Sp
			Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Planktoniella Sol	Planktoniella Sol
			Planktoniella Sol	Skeletonema costatum	Skeletonema costatum	Skeletonema costatum	Planktoniella Sol	Skeletonema costatum	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Skeletonema costatum	Skeletonema costatum
			Skeletonema costatum	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol		Planktoniella Sol						
			Planktoniella Sol											

ZOOPLANKTON														
Total Cell Count	Nollit		25,600	25,300	26,800	26,200	25,400	25,600	24,900	24,200	23,100	22,900	23,700	24,600
Total Geneus	Nos		8	7	7	7	7	7	7	6	6	6	7	7
Geneus			Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus
			Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus
			Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella
			Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Isias Sp	Isias Sp	Isias Sp	Nannocalanus	Nannocalanus
			Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Dioithiona	Dioithiona	Dioithiona	Isias Sp	Isias Sp
			Centropages	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Oithiona sp	Oithona sp	Oithona sp	Centropages	Centropages
			Dioithiona	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp				Oithona sp	Oithona sp
			Oithiona sp											
ZOOPLANKTON														
Population	No.m^3		33,800	33,100	33,900	31,800	30,900	31,200	30,500	30,700	30,200	29,100	29,300	30,800
Faunal Groups	Nos		6	6	6	6	6	6	6	5	5	5	5	6
Major Groups			Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda
			Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Animalia - Rotifera	Arthropoda Crustacea
			Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Animalia - Rotifera
			Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa Foraminifera
			Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Chordata Fish Egg
			Protozoa Polyhymenophora	Protozoa	Protozoa	Protozoa	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora					Protozoa Polyhymenophora

Karaikal Port Private Limited 3rd Party Port Entrance Channel Marine Water Results 2025-2026

Characteristics Test	Unit	Protocol	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Date of Sampling			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**10.03.2026**	**10.03.2027**
Latitude:			**N 10°50'21.16"**	**N 10°50'18.13"**	**N 10°50'23.12"**	**N 10°50'21.53"**	**N 10°50'22.53"**	**N 10°50'20.02"**	**N 10°50'21.53"**	**N 10°50'22.45"**	**N 10°50'21.86"**	**N 10°50'20.81"**	**N 10°50'56.38"**	**N 10°50'56.38"**
Longitude:			**E 79°51'34.23"**	**E 79°51'35.68"**	**E 79°51'32.55"**	**E 79°51'23.88"**	**E 79°51'36.25"**	**E 79°51'34.27"**	**E 79°51'23.88"**	**E 79°51'24.61"**	**E 79°51'23.95"**	**E 79°51'30.27"**	**E 79°52'03.57"**	**E 79°52'03.57"**
Salinity	%	By Argentometric Titration	4.12	3.7	4.07	3.89	3.56	3.76	3.57	3.88	4	3.71	3.82	3.82
pH @ 25°C	-	IS:3025 Part 11-1983 (Reaff:2017)	7.4	7.21	7.49	7.96	7.63	7.47	7.51	7.21	7.26	7.2	7.61	7.61
Temperature	°C	IS:3025 Part 9-1984 (Reaff:2017)	31	29	29	29	29	28	28	26	27	25	27	27
Electrical Conductivity	µmhos/cm	IS:3025 Part 14- 2013 (Reaff:2019)	46680	42600	47200	60100	44640	42360	45600	42180	44890	42640	45400	45400
Turbidity	NTU	IS:3025 Part 10-1984 (Reaff:2017)	6.2	4.2	6.9	1.24	4.94	5.2	3.47	16.8	1.8	1.3	5.8	5.8
Total Suspended Solids	mg/l	IS:3025 Part 17-1984 (Reaff:2017)	24	14	18	12	13	19	11	28	26	6	19	19
Total Dissolved Solids	mg/l	IS:3025 Part 16-1984(Reaff:2017)	38060	36590	39720	38690	44640	37400	41380	36640	38896	35662	36940	36940
Dissolved Oxygen	mg/l	IS:3025 Part 38-1989 (Reaff:2019)	6.2	5.9	5.5	6.3	5.9	6	6.2	6.3	6.5	6.1	6.5	6.5
BOD @ 27°C for 3 days	mg/l	IS:3025 Part 44-1993 (Reaff:2019)	5	5	4	5	7	6	6	7	7	6	5	5
COD	mg/l	IS:3025 Part 58-2006 (Reaff:2017)	19	22	19	22	28	24	19	27	24	24	26	26
Chloride as Cl	mg/l	IS:3025 Part 32-1988 (Reaff:2019)	22405.8	20155	22112	21134	21649	20462	20868	21140	21740	20180	20546	20546
Sulphate as SO_4	mg/l	IS:3025 Part 24-1986 (Reaff:2019)	2045	2082	2290	2144	2206	2140	2187	1940	1898	2044	2240	2240
Sodium as Na	mg/l	IS:3025 Part 45 - 1993 (Reaff:2019)	14720	14211	14520	12489	13868	14216	12976	14240	14898	13814	12940	12940
Calcium as Ca	mg/l	IS:3025 Part 40-1991 (Reaff:2019)	1363	1322	1369	1468	1388	1363	1403	1310	1390	1380	1294	1294
Magnesium as Mg	mg/l	IS:3025 Part 46-1994 (Reaff:2019)	1773.9	1798	1840	1847	1684	1776	1798	1776	1828	1774	1698	1698
Potassium as K	mg/l	IS:3025 Part 45 -1993(Reaff:2019)	966	934	962	898	914	949	894	934	958	921	906	906
Oil & Grease	mg/l	IS:3025 Part 39-2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron as Fe	mg/l	IS:3025 Part 53:2003 (Reaff:2019)	0.51	0.4	0.49	0.21	0.26	0.46	0.31	0.59	0.68	0.31	0.49	1.49
Zinc as Zn	mg/l	IS:3025 Part 2-2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Manganese as Mn	mg/l	IS:3025 Part 2:2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium as Cd	mg/l	IS:3025 Part 2-2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/l	IS:3025 Part 2-2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Mercury Hg	mg/l	IS:3025 Part 48 -1994(Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO_3	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	5	4.12	6.15	3.62	5.34	5.66	6.14	6.29	6.46	6.2	5.9	6.9
Free Ammonia NH_3	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Kjeldahl Nitrogen	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silica as SiO_2	mg/l	IS:3025 Part 35-1988(Reaff:2019)	0.64	0.51	0.69	0.42	0.73	0.65	0.81	0.65	0.68	0.54	0.73	0.73
Total Coliform	MPN/100ml	APHA 23rd Edn 2017:9221 B	240	220	240	320	210	420	540	520	350	540	350	350
Faecal Coliforms	MPN/100ml	APHA 23rd Edn 2017:9221 E	84	63	94	110	63	120	110	130	94	94	46	46
PHYTOPLANKTON														
Total Cell Count	Nollit		35,100	35,900	36,200	35,500	33,700	32,900	34,100	33,400	32,100	31,600	32,900	33,300
Total Geneus	Nos		11	11	11	11	10	10	10	10	10	10	10	10
Geneus			Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis
			Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus
			Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceros	Ceratium Macroceros	Bellerochea Sp	Bellerochea Sp
			Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Triceratium sp	Triceratium sp
			Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium sp	Triceratium sp	Bacillaria sp	Bacillaria sp
			Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria sp	Bacillaria sp	Protoperidinim sp	Protoperidinim sp
			Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperidinim sp	Protoperidinim sp	Ditylum sp	Ditylum sp
			Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Coscinodiscus sp	Coscinodiscus sp
			Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus sp	Coscinodiscus sp	Planktoniella Sol	Planktoniella Sol
			Planktoniella Sol	Planktoniella Sol	Skeletonema costatum	Skeletonema costatum	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Skeletonema Costatum	Skeletonema costatum
			Skeletonema costatum	Skeletonema costatum	Planktoniella Sol	Planktoniella Sol								

ZOOPLANKTON														
Total Cell Count	Nollit		26,800	27,200	28,100	27,400	26,200	26,100	25,600	24,300	23,800	23,200	23,700	54,100
Total Geneus	Nos		8	8	8	8	7	7	7	6	6	6	7	7
Geneus			Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus
			Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus
			Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella
			Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Isias Sp	Isias sp	Isias sp	Nannocalanus	Nannocalanus
			Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Dioithona	Dioithiona	Dioithiona	Isias sp	Isias sp
			Centropages	Centropages	Centropages	Centropages	Dioithona	Dioithona	Dioithona	Oithona Sp	Oithona sp	Oithona sp	Centropages	Centropages
			Dioithona	Dioithona	Dioithona	Dioithona	Oithona Sp	Oithona Sp	Oithona Sp				Oithona sp	Oithona sp
			Oithona Sp	Oithona Sp	Oithona Sp	Oithona Sp								

ZOOPLANKTON														
Population	No.m^3		34,100	33,800	34,300	35,500	31,900	31,600	32,700	31,200	30,400	28,900	29,300	31,300
Faunal Groups	Nos		6	6	6	6	6	6	6	5	5	5	5	6
Major Groups			Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda
			Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Animalia - Rotifera	Arthropoda Crustacea
			Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Protozoa Foraminifera	Protozoa - Foraminifera	Protozoa - Foraminifera	Protozoa - Foraminifera	Animalia - Rotifera
			Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa - Foraminifera
			Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Chordata Fish Egg
			Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora					Protozoa Polyhymenophora

Karaikal Port Private Limited - Ambient Air Quality Monitoring Results

Sl.No	Location	Parameter & Unit	CPCB Standard	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Annual Average
1	North Vanjore Lat: N 10° 51'08.8012" Long: E 79° 50'49.0668"	PM10 µg/m^3	100 µg/m^3	45.8	40.15	56.15	57.8	67	52.8	48.8	44.7	42.05	39.4	41.45	39.0	**48.7**
2		PM2.5 µg/m^3	60 µg/m^3	18.2	17.9	25.65	27.75	33.95	26.95	23.1	19.65	18.65	16.85	17.55	17	**22.4**
3		SO2 µg/m^3	80 µg/m^3	5.7	6.3	8.5	8	9.4	9	7.15	BDL	BDL	BDL	BDL	BDL	**7.7**
4		NO2 µg/m^3	80 µg/m^3	8.3	8.05	9.45	8.9	10.7	9.95	8.9	8.05	7	6.75	7.35	7.15	**8.5**
5		CO mg/m^3	4 mg/m^3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.0**
1	Keezha Vanjore Lat: N 10° 50'06.2628" Long: E 79° 50'23.1006"	PM10 µg/m^3	100 µg/m^3	64.15	52.25	53.2	57.65	59.1	57.5	59.55	54.5	56.45	60.8	58.55	55.7	**57.6**
2		PM2.5 µg/m^3	60 µg/m^3	31.85	29.95	28.6	29.95	31.05	29.4	28.4	25	27.2	29.6	32.1	29.5	**29.1**
3		SO2 µg/m^3	80 µg/m^3	12.25	10.6	8.9	8.7	9.15	9.15	12.3	11.75	9.5	11.85	12	12.55	**10.4**
4		NO2 µg/m^3	80 µg/m^3	14.7	13.35	11.9	10.75	11.3	11.6	15.6	15.25	13.0	14.3	14.4	14.2	**13.2**
5		CO mg/m^3	4 mg/m^3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.0**
1	Nagore Ice Factory (Near CPCL Office) Lat: N 10°49'20.9676" Long: E 79° 50'23.3772"	PM10 µg/m^3	100 µg/m^3	57.25	48.4	49.6	46.9	50.85	50.25	55.4	51.7	57.65	63.05	57.4	53.25	**53.5**
2		PM2.5 µg/m^3	60 µg/m^3	29.9	26.05	26.2	24.9	27.65	26.85	27.8	23.7	28.45	31.8	32.2	28.25	**27.8**
3		SO2 µg/m^3	80 µg/m^3	10.8	9	9.05	8.3	8.95	8.8	10.05	11.75	12.7	12.9	12.3	11.4	**10.4**
4		NO2 µg/m^3	80 µg/m^3	13.55	12.1	12.4	11.8	11.5	11.2	12.95	15.35	15.4	15.6	14.55	13.6	**13.3**
5		CO mg/m^3	4 mg/m^3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.0**
1	Nagore Pandagasalai Street Lat: N 10° 49'23.7072" Long: E 79° 50'39.1596"	PM10 µg/m^3	100 µg/m^3	49.25	41.6	41.55	40	40.85	43.45	41.15	44	53.15	58.5	51.45	45.3	**45.9**
2		PM2.5 µg/m^3	60 µg/m^3	22.85	21.15	21.3	20.15	21.95	22.45	19.35	19.5	24.7	29.3	27.7	22.5	**22.8**
3		SO2 µg/m^3	80 µg/m^3	8.2	7.65	7.7	7.35	7.8	8	8.75	9.95	10.9	11.75	11.1	10	**9.0**
4		NO2 µg/m^3	80 µg/m^3	11.5	10.95	10	10	10	10.35	10.95	11.85	12.8	14.25	13.15	12.2	**11.4**
5		CO mg/m^3	4 mg/m^3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.0**
1	Nagore Pattinumcherry Lat: N 10° 49'20.5860" Long: E 79° 50'46.5684"	PM10 µg/m^3	100 µg/m^3	42.9	37.05	36.4	37.1	36.3	37.95	36.4	37.1	45.25	53.35	49.05	40.1	**40.8**
2		PM2.5 µg/m^3	60 µg/m^3	19.65	17.15	17.35	17.55	17.9	19.6	18.4	16.95	20.15	25.95	25	19.4	**19.6**
3		SO2 µg/m^3	80 µg/m^3	7.35	6.55	5.6		6.2	6.45	6.9	7.5	8.85	10.95	9.65	8.35	**7.6**
4		NO2 µg/m^3	80 µg/m^3	10.05	9.35	8.8	8.25	8.75	9.15	8.65	9.9	10.6	12.6	11.25	10.4	**9.8**
5		CO mg/m^3	4 mg/m^3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.0**

Karaikal Port Private Limited 3rd Party Effluent Treatment Plant Outlet Water Analysis Results 2025 - 2026																	
Sl.No.	Test Parameters	Unit	Protocol	CPCB Max. Permissible Limits for (Marine Coastal Areas)	Date of Sampling												
					11.04.2025	21.05.2025	18.06.2025	17.07.2025	22.08.2025	16.09.2025	15.10.2025	20.11.2025	18.12.2025	21.01.2026	11.02.2026	10.03.2026
1	pH @ 25°C	-	IS 3025 Part 11 - 2022 (electrometric method)	5.5 to 9.0	7.14	7.89	7.3	8.6	7.8	6.69	7.53	7.13	7.53	7.76	8.13	7.61
2	Total Dissolved Solids	mg/l	IS 3025 Part 17 - 2022	100 mg/l	1174	1638	968	936	2186	2083	2053	5490	1824	4880	2318	2946
3	Total Suspended Solids	mg/l	IS 3025 Part 16 -2023	--	14	10	13	13	17	14	14	12	94	14	16	76
4	Oil & Grease	mg/l	IS 3025 Part 32 -1988 (Argentometric Method)	--	3	BDL	4	6	5	4	6	3	14	4	6	8
5	COD	mg/l	IS 3025 Part 24/Sec 1 - 2022 (Turbidity method)	--	21	18	63	25	26	23	32	24	226	32	39	69
6	BOD @ 27°C for 3 days	mg/l	IS:3025 Part 39:2021	20 mg/l	4.0	4.0	14	4	7	5.0	9	6.0	77	8	12.0	11
7	Total Kjeldahl Nitrogen	mg/l	IS 3025 Part 44 - 2023	100 mg/l	4	8	BDL	8.6	6.3	10	5.8	10	144.9	9	6.3	6.4
8	Sulphate as SO_4	mg/l	IS 3025 Part 58-2023	250 mg/l	139.8	162	104	168.9	154	481	132	469	287.9	412	158	242
9	Ammonical Nitrogen	mg/l	IS 3025 Part 34 -1988 (Macro-Kjeldahl Method)	--	2.5	6	BDL	6	5.6	8	4.9	6.8	140	6.9	5.6	5.6
10	Chloride as Cl	mg/l	IS 3025 Part 34 -1988 (Titrimetric Method)	--	320.5	450	274	410.9	674	811	624	2794	874.2	1898	682	742
11	Faecal Coliforms	MPN/100ml	APHA 24thEdn. 2023 : 9221 'E'	--	280	70	110	920	<1.8	120	70	120	350	<1.8	110	94
Note : BDL - Below Detection Limit, DL - Detection Limit,MPN - Most Probable Number . NS - Not Specified.																	

Karaikal Port Private Limited 3rd Party Surface Water(Pravadayanar River) Analysis Results May 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**21.05.2025**
pH @ 25°C	-	IS:3025 Part 11-2022 (Electrometric method)	7.97
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	31588
Total Hardness as $CaCO_3$	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	5000
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	4.45
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	BDL
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	22112
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	19.2
Total Chromium as Cr	mg/l	IS 3025 Part 65: 2022	0.14
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	11985.6
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	0.02
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.54
Boron as B	mg/l	IS 3025 Part 65: 2022	0.51
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	1.87
Total Arsenic as As	mg/l	IS 3025 Part 65 : 2022	0.031
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.4
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	0.012
Nitrate as NO3	mg/l	IS 3025 Part 34 - 1988 (Chromotropic acid method)	35
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	424
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	4994
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	1649
Total Alkalinity as $CaCo_3$	mg/l	IS 3025 Part 23 - 2023	162
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	5.7
Total Nitrogen as N	mg/l	IS 3025 Part 73 - 2021	9.5
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride metho	0.23
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	9
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	0.068
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	2.5
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	<1.8
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent
Total Coliform	NA	IS 15185:2016 Reaff. 2021	70
Vibrio cholerae	Qualitative	APHA 24th Edn.2023 - 9278 B	Absent
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	150
Note: MPN : Most Probable Number: BDL: Below Detection Limit , DL: Detection Limit, APHA – American Public Health Association. CFU - Colony Forming Unit. <1.8 MPN/100 ml & <1 Cfu/ml can be taken as 'No Microbial Growth'			

Karaikal Port Private Limited 3rd Party Surface Water(Pravadayanar River) Analysis Results Nov 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**20.11.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.17
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	3
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	4
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	BDL
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	6
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.34
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	6.5
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	17
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	379
Boron as B	mg/l	IS 3025 Part 65: 2022	0.06
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	BDL
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	87
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	1.84
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	95
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	2.7
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	236
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	0.27
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	37.6
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.33
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Arsenic as As	mg/l	IS 3025 Part 65 : 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Chromium as Cr	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	83
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	14
Nitrate Nitrogen as NO3 - N	mg/l	APHA 23rd Edition 2017 - 4500 -NO3 B	3.8
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	920
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	170
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Present/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	330
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Surface Water (Vettar River Water) Analysis Results May 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**21.05.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.8
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	38301
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	4.82
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	12767.3
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	BDL
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	21.2
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Arsenic as As	mg/l	IS 3025 Part 65 : 2022	0.032
Total Chromium as Cr	mg/l	IS 3025 Part 65: 2022	0.14
Copper as Cu	mg/l	IS 3025 Part 65: 2022	0.03
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.64
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	1.79
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Boron as B	mg/l	IS 3025 Part 65: 2022	0.53
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.67
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	0.013
Nitrate as NO3	mg/l	IS 3025 Part 34 - 1988 (Chromotropic acid method)	35
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	424
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	4994
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	1649
Total Alkalinity as CaCo3	mg/l	IS 3025 Part 23 - 2023	162
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	5.7
Total Nitrogen as N	mg/l	IS 3025 Part 73 - 2021	9.5
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.23
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	9
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	0.068
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	2.5
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	<1.8
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	70
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Absent/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	200
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited 3rd Party Surface Water (Vettar River Water) Analysis Results Nov 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**20.11.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.56
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	4
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	9
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	BDL
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	10
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.41
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	6.1
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	22
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	858
Boron as B	mg/l	IS 3025 Part 65: 2022	0.09
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	BDL
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	117
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	4.02
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	7
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	210
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	526
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	0.52
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	82
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.42
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Arsenic as As	mg/l	IS 3025 Part 65 : 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Chromium as Cr	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	BDL
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	190
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	20
Nitrate Nitrogen as NO3 - N	mg/l	APHA 23rd Edition 2017 - 4500 -NO3 B	5.4
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	540
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	94
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Present/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	260
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited
3rd Party Surface Water (Keezha Vanjore Pond Water) Analysis Results Jun 2025

Characteristics Test	Unit	Protocol	Results
Date of Sampling			**18.06.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.1
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	2308
Boron as B	mg/l	IS 3025 Part 65: 2022	0.51
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	6
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	524
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	1.41
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.84
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	0.03
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	28
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	0.008
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	163
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	386
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	24.6
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	410
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	27.8
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Total Nitrogen as N	mg/l	IS 3025 Part 73 - 2021	30.6
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Total Arsenic as As	mg/l	IS 3025 Part 65 : 2022	0.047
Total Chromium as Cr	mg/l	IS 3025 Part 65: 2022	0.2
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	113
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	0.01
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.4
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	2810
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Nitrate as NO3	mg/l	IS 3025 Part 34 - 1988 (Chromotropic acid method)	29
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	26
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	341
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	3.8
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	27
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	0.069
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	920
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	540
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Absent/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	22000

Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit

Karaikal Port Private Limited 3rd Party Surface Water (Keezha Vanjore Pond Water) Analysis Results Nov 2025			
Characteristics Test	**Unit**	**Protocol**	**Results**
Date of Sampling			**20.11.2025**
pH @ 25˚C	-	IS:3025 Part 11-2022 (Electrometric method)	7.74
Oil & Grease	mg/l	IS 3025 Part 39 : 2021	6
Total Kjedahl Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Macro- Kjedahl Method)	10
BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	8
Chemical Oxygen Demand	mg/l	IS 3025 Part 58 - 2023	29
Total Phosphate	mg/l	IS 3025 Part 31/ Sec 1 - 2022 (Stannous chloride method)	0.33
Dissolved Oxygen	mg/l	IS 3025 Part 38: 1989 - (Azide Modification)	5.4
Hexavalent Chromium as Cr6+	mg/l	IS 3025 Part 52 -2003 (diphenyl carbazide method)	BDL
Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	34
Electrical Conductivity @ 25°C	µmhos/cm	IS 3025 Part 14 - 2013	2420
Boron as B	mg/l	IS 3025 Part 65: 2022	0.58
Vanadium as V	mg/l	IS 3025 Part 2 - 2019	BDL
Total Alkalinity as CaCo*3*	mg/l	IS 3025 Part 23 - 2023	216
Potassium as K	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	15.68
Cobalt as Co	mg/l	IS 3025 Part 65: 2022	BDL
Total Hardness as CaCO*3*	mg/l	IS 3025 Part 21 - 2009 (EDTA titrimetric method)	300
Ammoniacal Nitrogen as N	mg/l	IS 3025 Part 34 - 1988 (Titrimetric method)	12
Total Dissolved Solids	mg/l	IS 3025 Part 16 - 2023	1460
Fluoride as F	mg/l	APHA 24th Edition 2023 - 4500 - F - D	0.97
Sodium as Na	mg/l	IS 3025 Part 45 - 1993 (Flame photometry method)	269
Iron as Fe	mg/l	IS 3025 Part 53 - 2003 (1, 10 phenanthroline method)	0.64
Lead as Pb	mg/l	IS 3025 Part 65: 2022	BDL
Copper as Cu	mg/l	IS 3025 Part 65: 2022	BDL
Zinc as Zn	mg/l	IS 3025 Part 65 : 2022	BDL
Selenium as Se	mg/l	IS 3025 Part 65 : 2022	BDL
Mercury as Hg	mg/l	IS 3025 Part 65: 2022	BDL
Cadmium as Cd	mg/l	IS 3025 Part 65: 2022	BDL
Arsenic as As	mg/l	IS 3025 Part 65 : 2022	BDL
Nickel as Ni	mg/l	IS 3025 Part 65: 2022	BDL
Chromium as Cr	mg/l	IS 3025 Part 65: 2022	BDL
Manganese as Mn	mg/l	IS 3025 Part 65: 2022	0.04
Chloride as Cl	mg/l	IS 3025 Part 32 - 1988 (Argentometric Method)	675
Sulphate as SO4	mg/l	IS 3025 Part 24/Sec 1 - 2022	60
Nitrate Nitrogen as NO3 - N	mg/l	APHA 23rd Edition 2017 - 4500 -NO3 B	21
Total Coliform	MPN/100ml	APHA 24th Edn.2023 - 9221 B	920
Faecal Coliforms	MPN/100ml	APHA 24th Edn.2023 - 9221 E	170
Salmonella	NA	APHA 24th Edn.2023 - 9274 B	Absent/100 ml
Vibrio cholerae	NA	APHA 24th Edn.2023 - 9278 B	Present/100 ml
Enterobacteriaceae	cfu/ml	ISO 21528 Part 2 - 2017	330
Note: BDL - Below Detection Limit, APHA - American Public Health Association, cfu - colony forming unit			

Karaikal Port Private Limited – Marine Sediment Results

Karaikal Port Private Limited 3rd Party Harbour Basin Sediment Results 2025-2026														
Parameters	**Unit**	**Procedure**	**Apr-25**	**May-25**	**Jun-25**	**Jul-25**	**Aug-25**	**Sep-25**	**Oct-25**	**Nov-25**	**Dec-25**	**Jan-26**	**Feb-26**	**Mar-26**
Sample on			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°49'54.93"**	**N 10°50'08.15"**	**N 10°50'15.18"**	**N 10°50'13.74"**	**N 10°50'14.82"**	**N 10°49'54.91"**	**N 10°49'13.74"**	**N 10°50'13.23"**	**N 10°50'14.03"**	**N 10°50'06.63"**	**N 10°49'54.89"**	**N 10°49'45.59"**
Longitude:			**E 79°51'01.82"**	**E 79°50'57.13"**	**E 79°50'54.72"**	**E 79°50'55.06"**	**E 79°50'55.27"**	**E 79°51'02.43"**	**E 79°50'55.06"**	**E 79°50'54.68"**	**E 79°50'55.24"**	**E 79°50'56.07"**	**E 79°51'01.56"**	**E 79°51'34.85"**
pH @ 25°C (1:10 ratio)	-	20 Part 26-1987 (electromagnetic me	7.43	7.35	7.52	7.46	7.9	7.59	7.5	7.52	7.28	7.58	7.49	7.38
Iron as Fe	%	USEPA 3050 B -1996 & USEPA 6010C - 2000	3.1	1.59	2.08	3.29	3.95	3.06	3.14	2.09	2.5	2.31	3.31	2.28
Zinc as Zn	mg/Kg		48.3	23.8	47.7	94.3	118	88.7	56.24	70.32	68.4	51.8	81.3	58.7
Manganese as Mn	mg/Kg		761	475.9	671	693	638	625	339	443	362	367	637	464.68
Cadmium as Cd	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/Kg		60.5	25.8	32.2	62.4	85	48.7	22.6	33.1	17.5	25.1	56.8	46.11
Mercury Hg	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/Kg	APHA 24th Edn. 2023 – 4500 NO2-B	0.64	0.56	0.587	0.49	0.68	0.53	0.58	0.65	0.74	0.57	0.36	0.32
Nitrate as NO_3	mg/Kg	APHA 24th Edn. 2023 – 4500 NO2-B	716	503	804	739	574	582	700	653	668	603	729	736
Free Ammonia as NH_3	mg/Kg	APHA 24th Edn. 2023 – 4500 NO2-B,C	3.69	4.42	3.82	3.64	4.38	2.92	3.94	3.76	3.96	2.83	3.37	3.48
Total Nitrogen	mg/Kg	IS : 10158 - 1982	994	1009	985.6	983	963	931	890	938	876	901	964	968
Inorganic Phosphate	mg/Kg	IS : 10158 - 1982	396	513	486	488.7	518	526	357	441	476	459	419	298.26
Total Phosphate as P	mg/Kg	IS : 10158 - 1982	402	518	499	497	527	529	361	453	473	476	426	306.87
Silica as SiO_2	%	IS: 1917 Part-3 – 1992	60.04	69.34	59.65	62.94	59.96	59.36	58.68	60.87	54.2	60.37	62.81	64.86
Oil & Grease	mg/Kg	USEPA 9071 B - 1998	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium as Mg	mg/Kg	USEPA 3050 B -1996 & USEPA 6010C - 2000	11056	8202	9834	12693	15648	12924	9192	10234	8670	11023	11834	9287
Nickel as Ni	mg/Kg		22.5	BDL	18.7	43.8	49.9	48.9	25.81	32.6	42.6	37.3	40.27	21.27
Lead as Pb	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.69
FAUNAL GROUP			**POPULATION (Nos./m^2)**											
MACROBENTHOS														
Rotaliidae,Bolivintidae,Hauerinidae,Gastropoda & Bivalvia, Nematodes & Crustaceans			160	160	150	160	150	150	130	150	140	130	150	160
MEIOBENTHOS														
Nematodes,Foraminifera sp, Gastropoda Larvae, Bivalvia Larvae & Fish eggs.			730	740	730	730	710	720	720	710	680	650	680	690
Note: BDL: Below Detection Limit **DL**: Detection Limit														

Karaikal Port Private Limited 3rd Party Break Water Sediment Results 2025-2026

Parameters	Unit	Procedure	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Sample on			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	21.01.2026	11.02.2026	10.03.2026
Latitude:			**N 10°50'21.13"**	**N 10°50'21.64"**	**N 10°50'22.56"**	**N 10°50'21.52"**	**N 10°50'19.46"**	**N 10°50'20.75"**	**N 10°50'21.52"**	**N 10°50'20.76"**	**N 10°50'19.81"**	N 10°50'20.81"	N 10°50'20.44"	N 10°50'19.83"
Longitude:			**E 79°51'19.58"**	**E 79°51'22.52"**	**E 79°51'21.63"**	**E 79°51'23.86"**	**E 79°51'18.29"**	**E 79°51'15.32"**	**E 79°51'23.86"**	**E 79°51'22.93"**	**E 79°51'16.19"**	E 79°51'21.92"	E 79°51'21.30"	E 79°51'20.57"
pH @ 25°C (1:10 ratio)	-	IS:2720 Part 26-1987 (Reaff:2016)	7.32	7.28	7.44	7.52	7.84	7.28	7.56	7.59	7.21	7.38	7.56	7.46
Iron as Fe	%	USEPA 3050 B -1996 & USEPA 6010C - 2000	3.08	1.61	2.97	3.29	3.23	3.01	3.09	2.14	2.58	2.19	3.29	2.15
Zinc as Zn	mg/Kg		49.1	25.8	41.1	89.6	118	91.6	56.3	61.7	79.8	57.9	77.3	58.1
Manganese as Mn	mg/Kg		755	579	632	987	642	635	326	477	348	391	654	362.77
Cadmium as Cd	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/Kg		61.1	24.3	31.5	63.7	96	49.2	22.6	28.9	18.62	24.3	26.9	45.58
Mercury Hg	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/Kg	APHA 23rd Edn. 2017 – 4500 NO_2-B	0.59	0.53	0.59	0.56	0.82	0.49	0.63	0.68	0.87	0.55	0.38	0.36
Nitrate as NO_3	mg/Kg	APHA23rd Edn. 2017 – 4500 NO_3-B	703	498	710.9	764	596	591	696	683	625	623	751	746
Free Ammonia as NH_3	mg/Kg	APHA 23rd Edn. 2017 – 4500 NH_3-B,C	3.87	4.27	3.69	3.72	4.07	2.98	3.82	3.76	4.16	2.71	3.22	3.64
Total Nitrogen	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	966	1027	999.8	974	999.7	947	979	957	836	893	948	968
Inorganic Phosphate	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	398	509	492	501	512	519	358	451	484	468	441	297.86
Total Phosphate as P	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	404	513	510	506	520	524	361	463	489	486	447	304.64
Silica as SiO_2	%	IS: 1917 Part-3 – 1992 (Reaff: 2005)	59.4	66.89	60.36	60.12	60.28	60.3	60.1	62.34	51.4	59.37	63.54	65.46
OIL & Grease	mg/Kg	USEPA 9071 B - 1998	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium as Mg	mg/Kg	USEPA 3050 B -1996 & USEPA 6010C - 2000	10908	8187	9779	12987	13824	12578	9203	10327	8692	11087	11734	9109
Nickel as Ni	mg/Kg		24.8	BDL	15.1	41.7	45.3	50.2	25.62	42.8	35.2	37.8	39.5	21
Lead as Pb	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FAUNAL GROUP			**POPULATION (Nos./m)**											
MACROBENTHOS														
Rotaliidae, Bolivintidae, Hauerinidae, Gastropoda & Bivalvia, Nematodes & Crustaceans			170	180	180	170	170	160	170	160	150	150	160	160
MEIOBENTHOS														
Nematods, Foraminifera sp, Gastropod Larvae, Bivalves Larvae & Fish eggs			740	750	745	740	720	730	740	720	690	670	710	720

Note: BDL: Below Detection Limit **DL**: Detection Limit

Karaikal Port Private Limited 3rd Party Port Entrance Channel Sediment Results 2025-2026

Parameters	Unit	Procedure	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Sample on			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°50'21.16"**	**N 10°50'18.13"**	**N 10°50'23.12"**	**N 10°50'21.53"**	**N 10°50'22.37"**	**N 10°50'20.02"**	**N 10°50'21.53"**	**N 10°50'22.45"**	**N 10°50'21.86"**	**N 10°50'20.81"**	**N 10°50'21.17"**	**N 10°50'56.38"**
Longitude:			**E 79°51'34.23"**	**E 79°51'35.68"**	**E 79°51'32.55"**	**E 79°51'23.88"**	**E 79°51'36.25"**	**E 79°51'34.27"**	**E 79°51'23.88"**	**E 79°51'24.61"**	**E 79°51'23.95"**	**E 79°51'30.27"**	**E 79°51'32.96"**	**E 79°52'03.57"**
pH @ 25°C (1:10 ratio)	-	720 Part 26-1987 (electrometric meth	7.11	7.31	7.68	7.24	7.92	7.54	7.62	7.52	7.35	7.34	7.29	7.32
Iron as Fe	%	USEPA 3050 B -1996 & USEPA 6010C - 2000	3.09	1.64	2.67	3.31	3.42	2.97	2.14	2.11	2.48	2.32	3.14	3.98
Zinc as Zn	mg/Kg		48.7	24.6	39.4	86.7	118	81.4	56.1	62.1	77.69	58.6	89.34	69.09
Manganese as Mn	mg/Kg		749	471.5	654	874	635	615	325	439	321	394	627	366.43
Cadmium as Cd	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/Kg		61.5	24.9	30.8	61.4	82	47.3	22.5	27.3	20.6	22.8	37.64	46.5
Mercury Hg	mg/Kg		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/Kg	APHA 23rd Edn. 2017 – 4500 NO_2-B	0.63	0.52	0.64	0.47	0.72	0.51	0.68	0.62	0.79	0.79	0.38	0.41
Nitrate as NO_3	mg/Kg	APHA23rd Edn. 2017 – 4500 NO_3-B	699	512	723	811	586	574	702.8	713	654	654	754	758
Free Ammonia as NH_3	mg/Kg	APHA 23rd Edn. 2017 – 4500 NH_3-B,C	3.81	4.11	3.86	4.01	4.12	2.94	3.78	3.84	4.02	4.02	3.47	3.52
Total Nitrogen	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	974	996	984	1014	984	913	956	921	860	860	977	986
Inorganic Phosphate	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	408	517	492	482	584	537	356	428	470	470	429	200.17
Total Phosphate as P	mg/Kg	IS : 10158 - 1982 (Reaff:2014)	411	522	508	487	509	541	360	436	474	474	435	207.04
Silica as SiO_2	%	IS: 1917 Part-3 – 1992 (Reaff: 2005)	58.6	67.98	58.64	61.48	61.47	57.43	59.47	61.34	52.69	52.69	65.87	66.14
OIL & Grease	mg/Kg	USEPA 9071 B - 1998	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium as Mg	mg/Kg	USEPA 3050 B -1996 & USEPA 6010C - 2000	11058	8345	9530	12874	14258	14578	9200	10597	8654	11254	11987	9145
Nickel as Ni	mg/Kg		23.3	BDL	12.6	39.7	49.5	49.7	22.53	43	38	37.6	43.6	21.51
Lead as Pb	mg/Kg		BDL	BDL	BDL	2.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.04
FAUNAL GROUP			**POPULATION (Nos./m^2)**											
MACROBENTHOS														
Rotaliidae, Bolivintidae, Hauerinidae, Gastropoda & Bivalvia, Nematodes & Crustaceans			180	200	190	180	180	170	170	160	150	150	160	170
MEIOBENTHOS														
Nematodes, Foraminifera sp, Gastropoda Larvae, Bivalvia Larvae & Fish eggs.			760	770	760	750	750	740	750	730	700	690	720	740

Note: BDL: Below Detection Limit **DL**: Detection Limit

Karaikal Port Private Limited 3rd Party Harbour Basin Marine Water Results 2025-2026

Characteristics Test	Unit	Protocol	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Date of Sampling			10.04.2025	21.05.2025	18.06.2025	17.07.2025	22.08.2025	16.09.2025	15.10.2025	20.11.2025	18.12.2025	21.01.2026	11.02.2026	10.03.2026
Latitude:			N 10°49'54.93"	N 10°50'08.15"	N 10°50'15.18"	N 10°50'13.74"	N 10°50'14.82"	N 10°49'54.91"	N 10°50'13.74"	N 10°50'13.23"	N 10°50'14.03"	N 10°50'06.63"	N 10°49'54.89"	N 10°49'45.59"
Longitude:			E 79°51'01.82"	E 79°50'57.13"	E 79°50'54.72"	E 79°50'55.06"	E 79°50'55.27"	E 79°51'02.43"	E 79°50'55.06"	E 79°50'54.68"	E 79°50'55.24"	E 79°50'56.07"	E 79°51'01.56"	E 79°51'34.85"
Salinity	%	By Argentometric Titration	4.19	3.78	4.14	4.07	3.61	3.83	3.56	3.93	3.89	3.77	3.96	3.85
pH @ 25°C	-	IS:3025 Part 11-2022 (electromagnetic method)	7.51	7.1	7.35	7.9	7.54	7.42	7.91	7.25	7.34	7.17	7.19	4.49
Temperature	°C	IS:3025 Part 9-2023	31	27	29	29	29	28.5	28	26	27	25	24	28
Electrical Conductivity	µmhos/cm	IS:3025 Part 14- 2013	47020	42960	47810	60500	44180	42700	44860	42690	45200	42910	40380	45300
Turbidity	NTU	IS:3025 Part 10-2023	9.8	3.2	7.2	1.29	4.86	7.1	3.62	6.2	2.2	1.7	2.2	5.7
Total Suspended Solids	mg/l	IS:3025 Part 17-2022	28	10	21	14	14	24	14	14	16	10	12	21
Total Dissolved Solids	mg/l	IS:3025 Part 16-2023	38950	36984	39760	39266	38476	37840	41440	37010	36948	36084	36388	36920
Dissolved Oxygen	mg/l	IS:3025 Part 38-1989 (Reaff:2019)	5.9	5.3	5.3	5.73	6.2	5.9	6.3	6.4	6.3	6.6	6.1	7
BOD @ 27°C for 3 days	mg/l	IS:3025 Part 44-2023	7	6	4	4	6	6	6.1	6	5	5	4	4
COD	mg/l	IS:3025 Part 58-2023	24	24	21	20	23	27	22	24	20	22	16	23
Chloride as Cl	mg/l	IS:3025 Part 32-1988 (Reaff:2019)	22797.2	20546	22520	22112	21940	20840	21643	21360	21148	20492	21544	20710
Sulphate as SO_4	mg/l	IS:3025 Part 24/Sec-1 - 2022	2110	2144	2416	2235	2186	2212	2134	1994	1884	2134	1932	2216
Sodium as Na	mg/l	IS:3025 Part 45 - 1993 (Reaff:2019)	14960	14286	14719	14026	13596	14496	12574	14492	14864	14968	14070	12860
Calcium as Ca	mg/l	IS:3025 Part 40-1991 (EDTA titrimetric method)	1403	1362	1410	1348	1345	1390	1428	1380	1412	1426	1342	1292
Magnesium as Mg	mg/l	IS:3025 Part 46-2023	1798	1822	1890	1371	1695	1810	1732	1834	1898	1810	1796	1724
Potassium as K	mg/l	IS:3025 Part 45 -1993(Flame photometric method)	989	944	981	928	937	969	873	969	958	949	922	886
Oil & Grease	mg/l	IS:3025 Part 39-2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron as Fe	mg/l	IS:3025 Part 53:2003 (1,10 phenanthroline method	0.55	0.38	0.52	0.23	0.29	0.53	0.35	0.48	0.52	0.35	0.55	0.55
Zinc as Zn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Manganese as Mn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium as Cd	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Mercury Hg	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/l	IS:3025 Part 34 : 1988	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO_3	mg/l	APHA 24th Edn. 2023 - 4500 NO3 - B	5.26	5.26	6.20	2.96	4.96	6.04	6.23	6.2	6.32	6.42	7.36	5.67
Free Ammonia NH_3	mg/l	IS:3025 Part 34 - 1988 (Nesslerization Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Kjeldahl Nitrogen	mg/l	IS:3025 Part 34-1988 (Macro - Kjedahl Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphate	mg/l	025 Part 31/ Sec 1 - 2022 (Stannous Chloride meth	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silica as SiO_2	mg/l	IS:3025 Part 35-1988(Heterpoly blue method)	0.67	0.57	0.74	0.52	0.69	0.69	0.69	0.59	0.54	0.57	0.52	0.61
Total Coliform	MPN/100ml	APHA 24th Edition 9221 B	350	280	280	430	350	350	350	210	350	430	350	280
Faecal Coliforms	MPN/100ml	APHA 24th Edition 9221 E	94	70	70	210	94	70	<1.8	110	110	280	84	70
PHYTOPLANKTON														
Total Cell Count	Nollit		33,200	33,500	33,900	32,600	32,100	31,900	31,200	32,300	30,400	30,700	31,800	30,700
Total Geneus	Nos		11	11	10	10	10	10	9	9	9	10	10	10
Geneus			Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis
			Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus
			Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Bellerochea Sp
			Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Triceratium sp
			Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Triceratium sp	Bacillaria sp
			Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Bacillaria sp	Protoperidinim sp
			Protoperdinim sp	Protoperdinim sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Protoperidinim sp	Protoperidinim sp	Protoperidinim sp	Protoperidinim sp	Protoperidinim sp	Ditylum sp
			Ditylum sp	Ditylum sp	Coscinodiscus sp	Coscinodiscus sp	Coscinodiscus sp	Coscinodiscus sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Coscinodiscus sp
			Coscinodiscus sp	Coscinodiscus sp	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Coscinodiscus sp	Coscinodiscus sp	Planktoniella Sol
			Planktoniella Sol	Planktoniella Sol	Rhizosolenia sp	Rhizosolenia sp	Rhizosolenia sp	Rhizosolenia sp				Planktoniella Sol	Planktoniella Sol	Skeletonema costatum
			Rhizosolenia sp	Rhizosolenia sp										

ZOOPLANKTON														
Total Cell Count	Nollit		23,100	23,800	23,500	22,800	21,800	21,900	21,700	22,900	22,500	21,800	23,100	22,900
Total Geneus	Nos		7	7	6	6	6	6	6	6	6	5	6	6
Geneus			Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus
			Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus
			Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella
			Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Isias sp	Isias sp	Isias sp
			Centropages	Centropages	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Oithona sp	Centropages	Centropages
			Dioithiona	Dioithiona	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithona sp		Oithona sp	Oithona sp
			Oithiona sp	Oithiona sp										
ZOOPLANKTON														
Population	$No.m^3$		33,400	32,900	33,400	32,700	31,200	32,500	29,400	29,400	29,600	28,700	29,100	30,600
Faunal Groups	Nos		5	5	5	5	5	5	5	5	5	5	5	5
Major Groups			Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda
			Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Animalia - Rotifera	Animalia - Rotifera
			Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia - Rotifera	Animalia - Rotifera	Protozoa - Foraminifera	Protozoa - Foraminifera
			Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg
			Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora

Karaikal Port Private Limited 3rd Party Marine Water - Break Water Area Results 2025-2026

Characteristics Test	Unit	Protocol	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Date of Sampling			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**11.02.2026**	**10.03.2026**
Latitude:			**N 10°50'21.13"**	**N 10°50'21.64"**	**N 10°50'22.56"**	**N 10°50'21.52"**	**N 10°50'19.46"**	**N 10°50'20.75"**	**N 10°50'21.52"**	**N 10°50'20.76"**	**N 10°50'19.81"**	**N 10°50'20.81"**	**N 10°50'20.44"**	**N 10°50'19.83"**
Longitude:			**E 79°51'19.58"**	**E 79°51'22.52"**	**E 79°51'21.63"**	**E 79°51'23.86"**	**E 79°51'18.29"**	**E 79°51'15.32"**	**E 79°51'23.86"**	**E 79°51'22.93"**	**E 79°51'16.19"**	**E 79°51'21.92"**	**E 79°51'21.30"**	**E 79°51'20.57"**
Salinity	%	By Argentometric Titration	4.05	3.87	4.19	3.96	3.64	3.71	3.54	3.79	3.86	3.82	4.02	3.84
pH @ 25°C	-	IS:3025 Part 11-2022 (electromagnetic method)	7.39	7.27	7.41	7.95	7.84	7.52	7.66	7.34	7.42	7.14	7.05	7.58
Temperature	°C	IS:3025 Part 9-2023	31	29	29	29	29	28.5	28	26	27	25	24	27
Electrical Conductivity	µmhos/cm	IS:3025 Part 14- 2013	46310	43320	48160	60700	44360	41930	44980	41710	45600	43320	41140	45200
Turbidity	NTU	IS:3025 Part 10-2023	2.1	6.1	9.7	1.16	5.26	4.7	3.42	8.9	1.96	2.9	2.9	5.4
Total Suspended Solids	mg/l	IS:3025 Part 17-2022	10	21	29	15	12	14	12	19	22	15	14	17
Total Dissolved Solids	mg/l	IS:3025 Part 16-2023	38620	38620	40118	37952	38547	36984	41359	35920	36142	36348	37094	36860
Dissolved Oxygen	mg/l	IS:3025 Part 38-1989 (Reaff:2019)	6.1	5.7	5.1	6.2	6.1	6.2	6.4	6.2	6.1	5.7	5.3	6.8
BOD @ 27°C for 3 days	mg/l	IS:3025 Part 44-2023	4	8	6	5	6	4	5.7	5	6	8	4	3.6
COD	mg/l	IS:3025 Part 58-2023	17	27	24	21.6	26	18	21	20	22	28	19	22
Chloride as Cl	mg/l	IS:3025 Part 32-1988 (Reaff:2019)	22014.5	21036	22816	21525	22087	20170	20783	20618	20948	20784	21860	20670
Sulphate as SO_4	mg/l	IS:3025 Part 24/Sec-1 - 2022	2014	2206	2520	2219	2219	2060	2183	1862	1842	2262	2036	2190
Sodium as Na	mg/l	IS:3025 Part 45 - 1993 (Reaff:2019)	14519	14494	14979	13164	13764	14046	12694	14026	14148	14220	14510	12920
Calcium as Ca	mg/l	IS:3025 Part 40-1991 (EDTA titrimetric method)	1323	1402	1478	1514	1328	1310	1397	1242	1288	1460	1420	1289
Magnesium as Mg	mg/l	IS:3025 Part 46-2023	1798.2	1845	1920	1738	1617	1720	1784	1710	1684	1842	1872	1704
Potassium as K	mg/l	IS:3025 Part 45 -1993(Flame photometric method)	940	969	996	916	931	917	953	914	936	976	994	891
Oil & Grease	mg/l	IS:3025 Part 39-2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron as Fe	mg/l	IS:3025 Part 53:2003 (1,10 phenanthroline method)	0.45	0.46	0.57	0.29	0.24	0.4	0.36	0.52	0.58	0.44	0.57	0.51
Zinc as Zn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Manganese as Mn	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium as Cd	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Mercury Hg	mg/l	IS:3025 Part 65 : 2022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/l	IS:3025 Part 34 : 1988	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO_3	mg/l	APHA 24th Edn. 2023 - 4500 NO3 - B	5.03	4.3	6.32	3.29	4.64	5.2	5.94	6.17	6.12	6.94	7.62	BDL
Free Ammonia NH_3	mg/l	IS:3025 Part 34 - 1988 (Nesslerization Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Kjeldahl Nitrogen	mg/l	IS:3025 Part 34-1988 (Macro - Kjedahl Method)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphate	mg/l	3025 Part 31/ Sec 1 - 2022 (Stannous Chloride metho	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silica as SiO_2	mg/l	IS:3025 Part 35-1988(Heterpoly blue method)	0.55	0.62	0.77	0.49	0.64	0.59	0.79	0.54	0.58	0.62	0.59	0.64
Total Coliform	MPN/100ml	APHA 24th Edition 9221 B	220	240	240	350	240	380	280	340	240	350	240	430
Faecal Coliforms	MPN/100ml	APHA 24th Edition 9221 E	70	79	63	84	84	79	170	110	70	63	63	84
								PHYTOPLANKTON						
Total Cell Count	Nollit		34,600	34,700	35,800	34,900	32,500	33,100	33,700	33,100	31,900	31,200	32,300	32,900
Total Geneus	Nos		12	11	11	11	10	11	10	10	10	10	10	10
Geneus			Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis
			Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus
			Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Ceratium Macroceros	Bellerochea Sp	Bellerochea Sp
			Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Triceratiumsp	Triceratiumsp
			Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Triceratiumsp	Bacillariasp	Bacillariasp
			Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Bacillariasp	Protoperidinim Sp	Protoperidinim Sp
			Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Protoperidinim Sp	Ditylum sp	Ditylum sp
			Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Coscinodiscus Sp	Coscinodiscus Sp
			Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Planktoniella Sol	Planktoniella Sol
			Planktoniella Sol	Skeletonema costatum	Skeletonema costatum	Skeletonema costatum	Planktoniella Sol	Skeletonema costatum	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Skeletonema costatum	Skeletonema costatum
			Skeletonema costatum	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol		Planktoniella Sol						
			Planktoniella Sol											

ZOOPLANKTON														
Total Cell Count	Nollit		25,600	25,300	26,800	26,200	25,400	25,600	24,900	24,200	23,100	22,900	23,700	24,600
Total Geneus	Nos		8	7	7	7	7	7	7	6	6	6	7	7
Geneus			Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus
			Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus
			Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella
			Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Isias Sp	Isias Sp	Isias Sp	Nannocalanus	Nannocalanus
			Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Dioithiona	Dioithiona	Dioithiona	Isias Sp	Isias Sp
			Centropages	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Dioithiona	Oithiona sp	Oithona sp	Oithona sp	Centropages	Centropages
			Dioithiona	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp	Oithiona sp				Oithona sp	Oithona sp
			Oithiona sp											
ZOOPLANKTON														
Population	No.m^3		33,800	33,100	33,900	31,800	30,900	31,200	30,500	30,700	30,200	29,100	29,300	30,800
Faunal Groups	Nos		6	6	6	6	6	6	6	5	5	5	5	6
Major Groups			Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda
			Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Animalia - Rotifera	Arthropoda Crustacea
			Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Animalia - Rotifera
			Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa Foraminifera
			Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Chordata Fish Egg
			Protozoa Polyhymenophora	Protozoa	Protozoa	Protozoa	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora					Protozoa Polyhymenophora

Karaikal Port Private Limited 3rd Party Port Entrance Channel Marine Water Results 2025-2026

Characteristics Test	Unit	Protocol	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26
Date of Sampling			**10.04.2025**	**21.05.2025**	**18.06.2025**	**17.07.2025**	**22.08.2025**	**16.09.2025**	**15.10.2025**	**20.11.2025**	**18.12.2025**	**21.01.2026**	**10.03.2026**	**10.03.2027**
Latitude:			**N 10°50'21.16"**	**N 10°50'18.13"**	**N 10°50'23.12"**	**N 10°50'21.53"**	**N 10°50'22.53"**	**N 10°50'20.02"**	**N 10°50'21.53"**	**N 10°50'22.45"**	**N 10°50'21.86"**	**N 10°50'20.81"**	**N 10°50'56.38"**	**N 10°50'56.38"**
Longitude:			**E 79°51'34.23"**	**E 79°51'35.68"**	**E 79°51'32.55"**	**E 79°51'23.88"**	**E 79°51'36.25"**	**E 79°51'34.27"**	**E 79°51'23.88"**	**E 79°51'24.61"**	**E 79°51'23.95"**	**E 79°51'30.27"**	**E 79°52'03.57"**	**E 79°52'03.57"**
Salinity	%	By Argentometric Titration	4.12	3.7	4.07	3.89	3.56	3.76	3.57	3.88	4	3.71	3.82	3.82
pH @ 25°C	-	IS:3025 Part 11-1983 (Reaff:2017)	7.4	7.21	7.49	7.96	7.63	7.47	7.51	7.21	7.26	7.2	7.61	7.61
Temperature	°C	IS:3025 Part 9-1984 (Reaff:2017)	31	29	29	29	29	28	28	26	27	25	27	27
Electrical Conductivity	µmhos/cm	IS:3025 Part 14- 2013 (Reaff:2019)	46680	42600	47200	60100	44640	42360	45600	42180	44890	42640	45400	45400
Turbidity	NTU	IS:3025 Part 10-1984 (Reaff:2017)	6.2	4.2	6.9	1.24	4.94	5.2	3.47	16.8	1.8	1.3	5.8	5.8
Total Suspended Solids	mg/l	IS:3025 Part 17-1984 (Reaff:2017)	24	14	18	12	13	19	11	28	26	6	19	19
Total Dissolved Solids	mg/l	IS:3025 Part 16-1984(Reaff:2017)	38060	36590	39720	38690	44640	37400	41380	36640	38896	35662	36940	36940
Dissolved Oxygen	mg/l	IS:3025 Part 38-1989 (Reaff:2019)	6.2	5.9	5.5	6.3	5.9	6	6.2	6.3	6.5	6.1	6.5	6.5
BOD @ 27°C for 3 days	mg/l	IS:3025 Part 44-1993 (Reaff:2019)	5	5	4	5	7	6	6	7	7	6	5	5
COD	mg/l	IS:3025 Part 58-2006 (Reaff:2017)	19	22	19	22	28	24	19	27	24	24	26	26
Chloride as Cl	mg/l	IS:3025 Part 32-1988 (Reaff:2019)	22405.8	20155	22112	21134	21649	20462	20868	21140	21740	20180	20546	20546
Sulphate as SO_4	mg/l	IS:3025 Part 24-1986 (Reaff:2019)	2045	2082	2290	2144	2206	2140	2187	1940	1898	2044	2240	2240
Sodium as Na	mg/l	IS:3025 Part 45 - 1993 (Reaff:2019)	14720	14211	14520	12489	13868	14216	12976	14240	14898	13814	12940	12940
Calcium as Ca	mg/l	IS:3025 Part 40-1991 (Reaff:2019)	1363	1322	1369	1468	1388	1363	1403	1310	1390	1380	1294	1294
Magnesium as Mg	mg/l	IS:3025 Part 46-1994 (Reaff:2019)	1773.9	1798	1840	1847	1684	1776	1798	1776	1828	1774	1698	1698
Potassium as K	mg/l	IS:3025 Part 45 -1993(Reaff:2019)	966	934	962	898	914	949	894	934	958	921	906	906
Oil & Grease	mg/l	IS:3025 Part 39-2021	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron as Fe	mg/l	IS:3025 Part 53:2003 (Reaff:2019)	0.51	0.4	0.49	0.21	0.26	0.46	0.31	0.59	0.68	0.31	0.49	1.49
Zinc as Zn	mg/l	IS:3025 Part 2-2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Manganese as Mn	mg/l	IS:3025 Part 2:2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium as Cd	mg/l	IS:3025 Part 2-2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium as Cr	mg/l	IS:3025 Part 2-2004 (Reaff:2014)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Mercury Hg	mg/l	IS:3025 Part 48 -1994(Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrite as NO_2	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO_3	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	5	4.12	6.15	3.62	5.34	5.66	6.14	6.29	6.46	6.2	5.9	6.9
Free Ammonia NH_3	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Kjeldahl Nitrogen	mg/l	IS:3025 Part 34-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Phosphate	mg/l	IS:3025 Part 31-1988 (Reaff:2019)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Silica as SiO_2	mg/l	IS:3025 Part 35-1988(Reaff:2019)	0.64	0.51	0.69	0.42	0.73	0.65	0.81	0.65	0.68	0.54	0.73	0.73
Total Coliform	MPN/100ml	APHA 23rd Edn 2017:9221 B	240	220	240	320	210	420	540	520	350	540	350	350
Faecal Coliforms	MPN/100ml	APHA 23rd Edn 2017:9221 E	84	63	94	110	63	120	110	130	94	94	46	46
PHYTOPLANKTON														
Total Cell Count	Nollit		35,100	35,900	36,200	35,500	33,700	32,900	34,100	33,400	32,100	31,600	32,900	33,300
Total Geneus	Nos		11	11	11	11	10	10	10	10	10	10	10	10
Geneus			Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis	Dianophysis
			Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus	Leptocylindrus
			Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceroa	Ceratium Macroceros	Ceratium Macroceros	Bellerochea Sp	Bellerochea Sp
			Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Bellerochea Sp	Triceratium sp	Triceratium sp
			Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium Sp	Triceratium sp	Triceratium sp	Bacillaria sp	Bacillaria sp
			Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria Sp	Bacillaria sp	Bacillaria sp	Protoperidinim sp	Protoperidinim sp
			Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperinim Sp	Protoperidinim sp	Protoperidinim sp	Ditylum sp	Ditylum sp
			Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Ditylum sp	Coscinodiscus sp	Coscinodiscus sp
			Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus Sp	Coscinodiscus sp	Coscinodiscus sp	Planktoniella Sol	Planktoniella Sol
			Planktoniella Sol	Planktoniella Sol	Skeletonema costatum	Skeletonema costatum	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Planktoniella Sol	Skeletonema Costatum	Skeletonema costatum
			Skeletonema costatum	Skeletonema costatum	Planktoniella Sol	Planktoniella Sol								

ZOOPLANKTON														
Total Cell Count	Nollit		26,800	27,200	28,100	27,400	26,200	26,100	25,600	24,300	23,800	23,200	23,700	54,100
Total Geneus	Nos		8	8	8	8	7	7	7	6	6	6	7	7
Geneus			Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus	Brachionus
			Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus	Paracalanus
			Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella	Favella
			Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Nannocalanus	Isias Sp	Isias sp	Isias sp	Nannocalanus	Nannocalanus
			Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Isias Sp	Dioithona	Dioithiona	Dioithiona	Isias sp	Isias sp
			Centropages	Centropages	Centropages	Centropages	Dioithona	Dioithona	Dioithona	Oithona Sp	Oithona sp	Oithona sp	Centropages	Centropages
			Dioithona	Dioithona	Dioithona	Dioithona	Oithona Sp	Oithona Sp	Oithona Sp				Oithona sp	Oithona sp
			Oithona Sp	Oithona Sp	Oithona Sp	Oithona Sp								

ZOOPLANKTON														
Population	No.m^3		34,100	33,800	34,300	35,500	31,900	31,600	32,700	31,200	30,400	28,900	29,300	31,300
Faunal Groups	Nos		6	6	6	6	6	6	6	5	5	5	5	6
Major Groups			Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda	Arthropoda Copepoda
			Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Arthropoda Crustacea	Animalia - Rotifera	Arthropoda Crustacea
			Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Animalia Rotifera	Protozoa Foraminifera	Protozoa - Foraminifera	Protozoa - Foraminifera	Protozoa - Foraminifera	Animalia - Rotifera
			Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Protozoa Foraminifera	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa - Foraminifera
			Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Chordata Fish Egg	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Chordata Fish Egg
			Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora	Protozoa Polyhymenophora					Protozoa Polyhymenophora

Karaikal Port Private Limited 3rd Party Noise Level Results

Sampling Locations: 1. North Vanjoor 2. Keezha Vanjoor . 3. Nagore Village.

Month		Apr-25			May-25			Jun-25			Jul-25			Aug-25			Sep-25			Oct-25			Nov-25			Dec-25			Jan-26			Feb-26			Mar-26		
Date of Sampling		09.04.2025 to 10.04.2025			19.05.2025 to 20.05.2025			18.06.2025 to 19.06.2025			16.07.2025 to 17.07.2025			21.08.2025 to 22.08.2025			15.09.2025 to 16.09.2025			14.10.2025 to 15.10.2025			19.11.2025 to 20.11.2025			18.12.2025 to 19.12.2025			21.01.2026 to 22.01.2026			11.02.2026 to 12.02.2026			09.03.2026 to 10.03.2026		
S.No	Time	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)	1.Leq dB(A)	2.Leq dB(A)	3.Leq dB(A)
1	**07.00 AM**	45.2	47.2	46.3	45.3	46.8	45.6	46.1	47.3	45.7	44.8	45.9	44.6	46.3	46.8	45.2	45.9	47.2	44.8	44.9	47.6	45.3	45.3	47.1	46.2	46.1	47.5	46.8	45.7	48.1	47.2	44.8	46.2	46.9	45.8	47.2	45.9
2	8	46.4	48.6	48.2	45.9	47.3	47.8	47.8	47.9	46.3	46.2	46.7	45.9	47.2	47.1	46.3	46.7	48.5	46.3	45.6	49.3	46.8	47.1	49.2	47.3	47.3	48.9	48.9	46.9	49.6	49.6	45.2	47.3	48.1	46.3	48.5	46.8
3	9	47.1	50.3	50.9	47.1	49.5	48.2	48.9	49.2	47.8	47.3	47.3	47.3	47.9	48.7	47.8	47.3	49.6	47.2	46.8	50.1	48.2	48.6	50.5	49.5	48.1	50.2	50.7	47.5	50.3	50.3	46.7	48.1	49.6	47.6	51.6	47.2
4	10	47.8	51.6	51.2	47.5	50.3	49.7	48.2	50.3	47.9	48.1	49.5	47.5	48.3	49.1	48.1	48.1	50.1	47.5	48.2	51.8	49.1	49.4	51.6	50.7	48.9	52.4	51.6	47.1	51.7	52.4	47.3	50.6	51.3	47.2	52.8	49.6
5	11	46.2	50.7	50.6	47.9	50.1	50.3	47.6	50.1	48.6	46.9	49.1	47.1	47.5	48.6	47.9	47.9	49.3	47.1	47.3	51.3	47.6	48.6	50.9	48.3	48.2	51.9	50.2	46.3	51.2	51.6	46.1	50.4	50.7	46.9	50.7	48.5
6	**12.00 PM**	46.3	49.6	49.2	46.9	49.5	49.4	48.1	49.8	47.3	46.2	48.3	46.8	46.9	48.2	47.2	48.2	49.0	46.8	47.1	50.9	47.2	48.1	50.3	48.1	47.5	51.3	50.1	46.8	50.9	51.1	44.8	51.8	50.9	46.5	51.9	48.1
7	1	45.9	50.1	49.5	46.2	50.3	49.1	48.5	49.2	47.9	45.1	49.6	46.2	47.1	48.7	48.0	47.6	48.5	47.5	46.8	50.4	48.6	18.8	50.7	49.6	48.3	51.1	49.6	47.5	51.4	52.8	45.7	49.9	51.2	46.9	51.4	50.6
8	2	46.1	51.4	51.7	46.1	50.8	50.3	46.9	50.5	48.2	46.7	48.4	47.3	47.3	49.3	48.2	46.9	48.3	47.2	46.5	51.6	48.3	49.5	49.6	51.5	48.8	50.7	50.7	48.2	52.7	53.9	46.2	49.3	51.9	47.2	52.3	51.7
9	3	45.3	49.7	52.3	45.8	49.4	51.7	47.4	50.7	47.5	46.3	49.1	47.5	47.8	48.1	47.7	46.2	47.8	46.8	46.2	52.9	47.9	47.8	48.9	51.7	48.1	50.2	51.5	47.3	54.3	55.7	45.9	50.2	52.4	47.3	52.7	50.3
10	4	44.8	49.3	50.8	45.1	49.1	50.2	48.3	48.6	47.1	45.8	48.3	46.4	48.5	47.9	47.1	45.8	48.6	46.1	46.7	51.3	47.2	46.9	49.1	48.4	47.3	51.6	50.3	46.4	52.9	53.5	44.6	50.7	51.8	46.6	51.5	49.2
11	5	46.2	50.6	50.1	45.7	49.7	49.6	49.1	48.1	48.3	46.2	47.6	47.5	48.9	48.2	46.9	46.9	49.1	45.9	47.2	53.4	47.8	47.9	50.9	47.9	48.5	52.7	51.2	47.1	53.4	53.9	45.3	51.6	52.3	47.2	52.2	50.6
12	6	47.8	51.2	52.4	46.1	50.3	50.9	49.5	50.4	49.6	46.9	48.2	48.1	48.1	48.7	47.8	47.5	49.3	47.1	48.3	52.7	48.3	48.6	52.4	50.3	48.8	53.4	52.7	48.3	54.5	54.8	46.8	52.3	52.9	47.8	53.4	52.4
13	7	48.9	50.8	53.6	45.8	50.1	51.3	48.8	50.6	50.3	47.5	48.7	48.7	47.2	47.5	48.4	47.0	47.3	48.6	47.5	50.9	49.5	48.3	53.1	52.7	47.9	52.1	53.8	48.5	55.1	55.2	47.2	51.4	53.4	48.1	52.9	52.9
14	8	48.2	50.4	53.1	44.3	49.7	50.7	48.1	49.7	50.7	46.2	48.1	47.9	46.3	47.1	48.9	46.2	46.7	48.2	46.1	49.3	50.2	47.1	52.4	51.4	46.2	50.8	51.6	47.1	53.8	54.3	46.1	49.8	52.1	47.3	50.7	51.3
15	9	46.1	50.1	51.7	43.8	48.3	49.2	46.3	48.3	48.5	45.1	47.6	47.3	45.9	45.4	46.7	45.7	45.2	46.2	45.9	47.2	48.3	45.2	48.7	50.9	45.3	49.3	49.8	46.2	50.4	51.7	44.3	47.5	50.6	45.9	48.2	49.7
16	10	44.9	49.3	49.2	43.1	47.6	47.6	45.9	45.9	46.9	44.3	45.3	46.2	45.2	45.1	45.2	44.9	44.9	45.7	45.1	45.6	47.1	44.9	46.2	48.1	44.2	47.1	47.4	44.9	48.2	48.1	42.8	45.1	46.8	44.2	46.3	45.1
17	11	44.2	48.3	47.5	43.2	47.4	46.2	45.3	46.1	45.2	44.1	44.9	44.7	44.8	44.9	44.3	44.3	44.1	44.9	44.6	45.1	46.2	44.1	45.5	46.2	43.9	45.1	44.9	44.1	46.3	45.9	42.1	44.2	44.3	43.5	45.2	44.2
18	**12.00 AM**	42.9	47.2	45.1	42.9	47.0	44.9	44.7	45.3	44.3	42.8	43.5	43.2	43.1	43.5	43.1	42.9	43.8	44.2	44.2	44.8	44.5	42.6	43.9	44.5	42.1	44.6	43.8	42.6	44.7	42.7	41.5	42.9	41.8	42.9	43.1	41.6
19	1	42.5	46.5	43.8	42.5	46.2	43.4	43.8	44.7	42.7	42.3	42.8	42.5	42.5	43.1	42.8	42.5	42.6	43.5	43.8	43.9	42.9	41.7	42.6	42.9	41.5	42.8	42.1	40.3	42.3	40.3	40.8	40.6	40.2	41.6	41.8	40.8
20	2	42.1	44.1	42.6	42.1	45.3	42.7	43.2	43.8	42.6	41.6	42.1	41.3	42.2	43.4	41.6	41.6	42.9	42.8	43.5	43.1	42.5	41.3	42.1	42.5	40.4	41.6	41.3	39.7	40.7	40.1	38.2	40.1	39.7	40.8	39.8	40.9
21	3	42.6	43.6	42.1	42.3	44.6	43.1	42.5	44.6	43.4	41.2	41.7	40.8	41.9	43.8	41.4	42.7	43.5	41.9	42.9	43.5	42.1	40.5	42.4	42.1	39.6	41.7	40.7	38.5	40.1	41.6	37.4	40.8	40.2	39.1	40.2	41.3
22	4	43.1	42.9	41.6	43.2	43.1	42.8	43.9	44.9	43.8	40.8	42.6	41.3	42.7	44.9	41.2	43.8	44.6	42.3	43.1	44.2	43.4	41.2	43.8	43.4	40.1	42.8	40.2	39.6	41.9	42.7	38.1	41.3	40.9	39.7	41.9	43.7
23	5	44.8	43.1	42.3	44.7	43.7	43.2	44.7	45.2	45.3	42.3	43.8	42.9	44.8	45.2	43.1	44.9	45.7	43.6	44.5	45.6	45.2	42.7	45.9	45.2	42.8	44.5	42.6	41.7	43.7	44.1	40.5	42.7	43.5	41.8	44.7	44.6
24	6	45.9	45.8	44.9	45.5	45.3	44.5	46.2	45.8	45.9	43.7	44.3	44.5	45.3	45.8	44.8	45.1	46.1	45.1	45.2	46.7	46.7	44.1	46.5	46.7	43.9	46.3	45.3	43.5	47.1	45.9	42.9	45.9	45.1	44.2	47.4	46.1

Karaikal Port Private Limited 3rd Party Sewage Treatment Plant Outlet Water Results 2025 - 2026																	
Sl.No	Test Parameters	Unit	Protocol	CPCB Limits (On Land for Irrigation)	Date of Sampling												
					10.04.2025	21.05.2025	18.06.2025	17.07.2025	22.08.2025	16.09.2025	15.10.2025	20.11.2025	18.12.2025	21.01.2026	11.02.2026	10.03.2026
1	pH @ 25°C	-	IS 3025 Part 11 - 2022 (electrometric method)	5.5 – 9.0	7.7	7.41	7.47	8.03	7.91	7.55	7.42	7.29	7.53	7.53	7.62	7.28
2	Total Suspended Solids	mg/l	IS 3025 Part 17 - 2022	200 mg/l	27	28	22	16	26	26	21	26	28	26	23	21
3	Total Dissolved Solids	mg/l	IS 3025 Part 16 -2023	NS	1698	2490	1608	1848	2391	1686	2167	1746	1748	1628	2137	1591
4	Chloride as Cl	mg/l	IS 3025 Part 32 -1988 (Argentometric Method)	NS	476	596	478	596.8	524	724	502	694	514.8	337	544	598
5	Sulphate as SO_4	mg/l	IS 3025 Part 24/Sec 1 - 2022 (Turbidity method)	NS	196.7	219	192	246.2	126	136	122	147	168.2	104	96.0	176
6	Oil & Grease	mg/l	IS:3025 Part 39:2021	10 mg/l	6	5	6	5	6	7	5	5	6	7	8.0	6
7	BOD @ 27°C for 3 days	mg/l	IS 3025 Part 44 - 2023	100 mg/l	12	14	16	5	14	10	12	15	18	14	14.0	14
8	COD	mg/l	IS 3025 Part 58-2023	NS	47	62	81	29	87	44	94	62	94	69	14	82
9	Total Kjeldahl Nitrogen	mg/l	IS 3025 Part 34 -1988 (Macro-Kjeldahl Method)	NS	14.2	22	10.6	4.6	7.6	19	6.9	16.4	8	18	100	10.4
10	Ammonical Nitrogen	mg/l	IS 3025 Part 34 -1988 (Titrimetric Method)	NS	12	19	9.4	3	6.8	17	6.2	14.2	6	15.6	6.8	9.2
11	Faecal Coliforms	MPN/100ml	APHA 24thEdn . 2023 : 9221 'E'	NS	<1.8	540	43	110	920	540	140	350	94	94	220	280
Note : BDL - Below Detection Limit, DL - Detection Limit, NS - Not Specified, MPN - Most Probable Number.																	