

Ground Water Quality Data in Karaikal during Post Monsoon 2025					
Sl.No.	Parameters	Vadamattam	T.R.Pattinam	Acceptable Limit (IS 10500 : 2012)	Permissible Limit (IS 10500 : 2012)
Station Code		2014	2013		
1	Latitude	10.96825 N	10.841278 N		
2	Longitude	79.7955 E	79.832111 E		
3	Dt.of Sampling	03.02.2025	03.02.2025		
4	Time	06.20 A.M	07.15 A.M		
5	Temperature °C	32.0	32.5		
6	pH	8.05	8.23	6.5 - 8.5	NR
7	Conductivity µmho/cm	1684	2040		
8	COD (mg/l)	BDL (DL5.0)			
9	BOD (mg/l)	BDL (DL:1.0)			
10	Turbidity NTU	BDL (DL:1.0)		1	5
11	Nitrate -N (mg/l)	BDL (DL:0.3)			
12	Nitrite-N (mg/l)	0.11	0.04		
13	Nitrate (mg/l)	0.95	1.1	45	NR
14	Ammonia -N (mg/l)	BDL (DL:0.4)			
15	P. Alkalinity (mg/l)	BDL (DL:5.0)	20		
16	Total Alkalinity (mg/l)	255.0	263.0	200	600
17	Chloride (mg/l)	275.50	382.20	250	1000
18	Fluoride (mg/l)	0.53	0.56	1	1.5
19	Total Hardness as CaCO ₃ (mg/l)	64.0	96.0	200	600
20	Calcium Hardness as CaCO ₃ (mg/l)	18.0	50.0		
21	Magnesium Hardness as CaCO ₃ (mg/l)	46.0	46.0		
22	Calcium as Ca ⁺⁺ (mg/l)	7.2	20.0	75	200
23	Magnesium as Mg ⁺⁺ (mg/l)	11.18	11.18	30	100

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24	TDS (mg/l)	872	1048	500	2000
25	TSS (mg/l)	BDL (DL:10.0)			
26	FDS / TFS (mg/l)	617	767		
27	Sodium (mg/l)	343.3	402.5		
28	Potassium (mg/l)	4.11	3.51		
29	Sulphate (mg/l)	BDL (DL:5.0)		200	400
30	Ortho phosphate (mg/l)	BDL (DL:0.05)	0.08		
31	% Sodium	91.5	89.7		
32	SAR	18.6	17.8		
33	Total Coliform MPN/100 ml	<1.8	<1.8	Nil	Nil
34	Faecal Coliform MPN/100 ml	<1.8	<1.8	Nil	Nil
35	Faecal Streptococci MPN/100 ml	110	84	Nil	Nil
36	Copper (mg/l)	BDL (DL: 0.02)		0.05	1.5
37	Nickel (mg/l)	BDL (DL: 0.005)		0.02	NR
38	Cadmium (mg/l)	BDL (DL: 0.001)		0.003	NR
39	Lead (mg/l)	BDL (DL: 0.005)		0.01	NR
40	Total Chromium (mg/l)	BDL (DL: 0.02)		0.05	NR
41	Iron (mg/l)	0.06	0.09	0.3	NR
42	Zinc (mg/l)	BDL (DL: 0.05)		5	15
43	Arsenic (mg/l)	BDL (DL: 0.005)		0.01	0.05
44	Mercury (mg/l)	BDL (DL: 0.004)		0.001	NR
45	Alpha HCH µg/l	BDL			
46	Gamma HCH µg/l	BDL			
47	Detla HCH µg/l	BDL			

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48	Methyl Parathion µg/l	BDL			
49	Alachor µg/l	BDL			
50	Aldrin µg/l	BDL			
51	Malathion µg/l	BDL			
52	Chlorpyrifos µg/l	BDL			
53	Alpha Endosulfan µg/l	BDL			
54	Butachlor µg/l	BDL			
55	Beta Endosulfan µg/l	BDL			
56	Phorate µg/l	BDL			
57	op DDT µg/l	BDL			
58	op DDD µg/l	BDL			
59	pp DDD µg/l	BDL			
60	op DDE µg/l	BDL			
61	pp DDE µg/l	BDL			
62	Dieldrin µg/l	BDL			
63	Ethion µg/l	BDL			
64	Endosulfan sulfate µg/l	BDL			
65	pp DDT µg/l	BDL			

BDL - Below Detectable Limit; DL - Detection Limit
 NR - No Relaxation