

Ground Water Quality Data in Karaikal during Pre Monsoon 2023					
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	19.09.2023	19.09.2023		
4	Time	6.00 AM	6.45 AM		
5	Temperature °C	29.0	29.0		
6	pH	8.27	8.25	6.5 - 8.5	NR
7	Conductivity µmho/cm	1520	2040		
8	COD (mg/l)	BDL (DL:5.0)			
9	BOD (mg/l)	BDL (DL:1.0)			
10	Turbidity NTU	BDL (DL:1.0)		1	5
11	Nitrate -N (mg/l)	0.47	BDL (DL:0.3)		
12	Nitrite-N (mg/l)	BDL (DL:0.02)			
13	Nitrate (mg/l)	2.1	BDL	45	NR
14	Hexavalent Chromium (mg/l)	BDL			
15	P. Alkalinity (mg/l)	31	29		
16	Carbonate CO ₃ ²⁻ (mg/l)	18.6	17.4		
17	M. Alkalinity (mg/l)	281	281		
18	Total Alkalinity (mg/l)	312	310	200	600
19	Bi-Carbonate as HCO ₃ ⁻ (mg/l)	342.82	344.04		
20	Chloride (mg/l)	273.91	359.40	250	1000
21	Total Hardness as CaCO ₃ (mg/l)	20	68	200	600
22	Calcium Hardness as CaCO ₃ (mg/l)	16	66		
23	Magnesium Hardness as CaCO ₃ (mg/l)	4	2		

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24	Calcium as Ca ⁺⁺ (mg/l)	6.4	26.4	75	200
25	Magnesium as Mg ⁺⁺ (mg/l)	0.972	0.486	30	100
26	TDS (mg/l)	755	1024	500	2000
27	TSS (mg/l)	BDL (DL:10.0)			
28	Sodium (mg/l)	402.2	533.3		
29	Potassium (mg/l)	3.55	3.32		
30	Sulphate (mg/l)	7.20	16.12	200	400
31	Ortho phosphate (mg/l)	BDL (DL:0.05)	0.21		
32	% Sodium	97.26	94.13		
33	SAR	39.1	28.1		
34	Copper (mg/l)	BDL		0.05	1.5
35	Nickel (mg/l)	BDL		0.02	NR
36	Cadmium (mg/l)	BDL		0.003	NR
37	Lead (mg/l)	BDL		0.01	NR
38	Total Chromium (mg/l)	BDL		0.05	NR
39	Iron (mg/l)	BDL		0.3	NR
40	Zinc (mg/l)	BDL		5	15
41	Arsenic (mg/l)	BDL		0.01	0.05
42	Mercury (mg/l)	BDL		0.001	NR
43	Manganese (mg/l)	0.05	0.11	0.1	0.3
44	Alpha HCH µg/l	BDL			
45	Gamma HCH µg/l	BDL			
46	Detla HCH µg/l	BDL			
47	Methyl Parathion µg/l	BDL			

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48	Alachor µg/l	BDL			
49	Aldrin µg/l	BDL			
50	Malathion µg/l	BDL			
51	Chlorpyrifos µg/l	BDL			
52	Alpha Endosulfan µg/l	BDL			
53	Butachlor µg/l	BDL			
54	Beta Endosulfan µg/l	BDL			
55	Phorate µg/l	BDL			
56	op DDT µg/l	BDL			
57	op DDD µg/l	BDL			
58	pp DDD µg/l	BDL			
59	op DDE µg/l	BDL			
60	pp DDE µg/l	BDL			
61	Dieldrin µg/l	BDL			
62	Ethion µg/l	BDL			
63	Endosulfan sulfate µg/l	BDL			
64	pp DDT µg/l	BDL			
65	Total Coliform MPN/100ml	<1.8	<1.8		
66	Faecal Coliform MPN/100ml	<1.8	<1.8		
67	Faecal Streptococci MPN/100ml	94	110		

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