

Ground Water Quality Data in Puducherry during Pre Monsoon 2023																						
Sl. No	Parameters	Muthirapalayam	Mettupalayam	Thengaithittu	Maruti school	Krishna nagar	Panithittu	Eachangadu	Bahour Borewell	Chetty koil	Pondicherry University	Chevaliar school	Kurumapet	Uruvaiyar	Sedarapet	Katterikuppam	Thirukanur	Madukarai	Kothapurinatham	Acceptable Limit (IS 10500 : 2012)	Permissible limit (IS 10500 : 2012)	
	Station Code	1453	2010	1398	2012	1397	4633	3882	3883	1687	1454	3884	2009	2011	3885	1688	4631	4632	3886			
1	Latitude (N)	11.938128	11.943233	11.910344	11.967997	11.953022	11.829497	11.821469	11.813551	11.936917	12.017064	12.038022	11.930503	11.886886	11.990417	12.004731	11.991119	11.871408	11.9305			
2	Longitude (E)	79.779925	79.785456	79.817528	79.817231	79.820189	79.803069	79.796228	79.746173	79.831028	79.850761	78.865722	79.761528	79.748529	79.755278	79.700811	79.639742	79.603708	79.661694			
3	Dt.of Sampling	11.09.2023	19.09.2023	19.09.2023	11.09.2023	11.09.2023	19.09.2023	19.09.2023	19.09.2023	11.09..2023	11.09..2023	11.09..2023	19.09.2023	19.09.2023	11.09.2023	11.09.2023	19.09.2023	19.09.2023	11.09.2023			
4	Time	3.00PM	10.00AM	10.30AM	12.50PM	1.10 P.M	11.30 A.M	12.15 PM	12.45 PM	10.45 AM	11.25 AM	12.15 PM	5.10 PM	1.30 PM	5.30 PM	4.45 PM	4.00 PM	3.30 PM	2.45 PM			
5	Temperature °C	32.0	32.0	32.0	32.0	31.5	32.0	32.0	32.0	32.0	32.0	30.0	31.0	32.0	31.0	30.0	30.0	30.0	30.0			
6	pH	6.61	6.32	7.00	6.79	6.00	6.34	6.94	7.73	7.04	5.71	6.57	6.57	7.60	7.34	7.16	6.65	7.11	7.06	6.5 - 8.5	NR	
7	Conductivity µmho/cm	758	1231	3160	1794	900	1055	567	502	2260	510	662	617	2260	1999	780	981	1698	1131			
8	COD (mg/l)	BDL (DL: 5.0)																				
9	Turbidity NTU	BDL	6.5	1.8	BDL (DL: 1.0)			3.5	BDL (DL: 1.0)												1	5
10	Nitrate -N (mg/l)	1.94	0.63	BDL	1.26	3.04	BDL (DL: 0.3)			1.53	2.75	2.98	2.9	BDL	0.95	0.69	2.12	8.42	3.27			
11	Nitrite-N (mg/l)	BDL (DL: 0.02)																				
12	Nitrate (mg/l)	8.62	2.81	1.07	5.59	13.46	0.62	0.18	0.2	6.77	12.2	13.18	12.8	0.22	4.19	3.06	9.4	37.29	14.5	45	NR	
13	BOD (mg/l)	BDL (DL: 1.0)																				
14	M.Alkalinity (mg/l)	136	130	264	140	167	163	243	277	355	80	126	429	274	382	338	140	318	246			
15	Bi- Carbonate as HCO ₃ ⁻ (mg/l)	165.92	158.60	322.08	170.80	203.74	198.86	296.5	337.94	433.10	97.60	153.70	523.38	334.28	466.04	412.36	170.80	387.96	300.12			
16	P. Alkalinity (mg/l)	BDL (DL: 5.0)																				
17	Carbonate as CO ₃ ²⁻ (mg/l)	BDL (DL: 3.0)																				

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	Station Code	1453	2010	1398	2012	1397	4633	3882	3883	1687	1454	3884	2009	2011	3885	1688	4631	4632	3886		
18	Total Alkalinity (mg/l)	136	130	264	140.0	167.0	163	243	277	355	80	126	429	274	382	338	140	318	246	200	600
19	Chloride (mg/l)	97.13	82.56	719.7	439	167.1	180.66	40.79	24.28	423.49	74.79	137.92	67.99	502.16	222.40	47.60	121.41	230.20	303.05	250	1000
20	Total Hardness as CaCO ₃ (mg/l)	196	262	528	312.0	236.0	222	142	66	526.0	96	110	142	452	616	312	298	336	280	200	600
21	Calcium Hardness as CaCO ₃ (mg/l)	170	218	384	204.0	178.0	198	118	50	420.0	74	78	120	292	444	194	226	214	160		
22	Magnesium Hardness as CaCO ₃ (mg/l)	26.0	44	144	108.0	58.0	24	24	16	106.0	22	32	22	160	172	118	72	122	120		
23	Calcium as Ca ⁺⁺ (mg/l)	68.0	87.2	154	81.6	71.2	79.2	47.2	20.0	168.0	29.6	31.2	48.0	116.8	177.6	77.6	90.4	85.6	64.0	75	200
24	Magnesium as Mg ⁺⁺ (mg/l)	6.32	10.692	34.992	26.2	14.1	5.832	5.832	3.888	25.8	5.300	0.80	5.346	38.880	41.800	28.70	17.500	29.65	29.160	30	100
25	TDS (mg/l)	502	725	1782	1059	652	518	240	168	1332	275	438	320	1369	1450	438	652	977	633	500	2000
26	TSS (mg/l)	BDL (DL: 10.0)																			
27	Sodium (mg/l)	60.8	90.62	563.80	248.7	69.8	101.90	45.48	49.25	290.5	31.90	63.00	54.43	373.90	260.70	15.10	74.60	252.10	118.23		
28	Potassium (mg/l)	4.20	4.58	5.46	13.49	7.26	4.10	3.44	1.86	39.86	0.74	3.78	7.82	4.27	3.75	3.40	3.30	2.63	6.36		
29	Hexavalent Chromium (mg/l)	BDL																			
30	Sulphate (mg/l)	68.89	288.0	139.08	68.89	83.45	27.24	31.82	16.85	128.44	17.34	13.09	29.86	98.83	292.89	6.50	33.13	76.41	51.79	200	400

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Station Code		1453	2010	1398	2012	1397	4633	3882	3883	1687	1454	3884	2009	2011	3885	1688	4631	4632	3886		
31	Ortho phosphate (mg/l)	0.41	BDL	0.17	0.4	0.36	0.2	BDL (DL: 0.05)		1.65	0.33	0.36	0.38	0.11	0.33	0.38	0.39	BDL	0.48		
32	% Sodium	39.59	42.33	69.54	62.06	38.14	49.33	40.26	60.95	52.2	41.68	54.28	43.72	63.89	47.64	9.36	34.85	61.65	47.02		
33	SAR	1.90	2.4	10.6	6.10	2.00	3.0	1.7	2.6	5.50	1.4	2.6	2.0	7.6	4.6	0.4	1.9	6.0	3.10		
34	Alpha HCH µg/l	BDL																			
35	Gamma HCH µg/l	BDL																			
36	Detla HCH µg/l	BDL																			
37	Methyl Parathion µg/l	BDL																			
38	Alachor µg/l	BDL																			
39	Aldrin µg/l	BDL																			
40	Malathion µg/l	BDL																			
41	Chlorpyrifos µg/l	BDL																			
42	Alpha Endosulfan µg/l	BDL																			
43	Butachlor µg/l	BDL																			
44	Beta Endosulfan µg/l	BDL																			

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Station Code		1453	2010	1398	2012	1397	4633	3882	3883	1687	1454	3884	2009	2011	3885	1688	4631	4632	3886		
45	Phorate µg/l	BDL																			
46	op DDT µg/l	BDL																			
47	op DDD µg/l	BDL																			
48	pp DDD µg/l	BDL																			
49	op DDE µg/l	BDL																			
50	pp DDE µg/l	BDL																			
51	Dieldrin µg/l	BDL																			
52	Ethion µg/l	BDL																			
53	Endosulfan sulfate µg/l	BDL																			
54	pp DDT µg/l	BDL																			
55	Copper (mg/l)	BDL																		0.05	1.5
56	Nickel (mg/l)	BDL																		0.02	NR
57	Cadmium (mg/l)	BDL																		0.003	NR

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Station Code		1453	2010	1398	2012	1397	4633	3882	3883	1687	1454	3884	2009	2011	3885	1688	4631	4632	3886		
58	Lead (mg/l)	BDL																		0.01	NR
59	Total Chromium (mg/l)	BDL																		0.05	NR
60	Iron (mg/l)	BDL								0.30	BDL	0.09	BDL				0.03	BDL		0.3	NR
61	Zinc (mg/l)	BDL														0.07	BDL			5	15
62	Arsenic (mg/l)	BDL																		0.01	0.05
63	Mercury (mg/l)	BDL																		0.001	N.R
64	Manganese (mg/l)	0.005	5.59	0.29	0.532	BDL	0.36	0.2	0.05	0.163	0.009	0.020	0.03	0.29	BDL	BDL	0.009	0.05	0.02	0.1	0.3
65	Total Coliform MPN/100ml	<1.8																			
66	Faecal Coliform MPN/100ml	<1.8																			
67	Faecal Streptococci MPN/100ml	84	94	70	58	84	58	130	170	63	94	70	63	46	79	<1.8	<1.8	79	110		

BDL - Below Detection Limit DL - Detection Limit

NR - No Relaxation