

Comparison of Water sample results from sources in and around SIPCOT Cuddalore with the Indian and other Standards

1. Ground water taken from the SIPCOT Project Office.

S No.	Parameter	Standards**	06.02.2013 Results (mg/L)	18.04.2013 Results (mg/L)	11.09.2013 Results (mg/L)	23.10.2013 Results (mg/L)	27.12.2013 Results (mg/L)	30.01.2014 Results (mg/L)	26.02.2014 Results (mg/L)	21.03.2014 Results (mg/L)	28.04.2014 Results (mg/L)
1.	PH	6.5 – 8.5	7.68	7.72	7.60	7.59	7.02	7.14	7.19	7.16	7.48
2.	TDS	500	728	696	376	660	612	576	672	52	1198
3.	Total Hardness	200	288	148	460	458	140	260	262	1650	1230
4.	Magnesium	30	7	21	64	28	9.29	31.59	31.56	206.5	136
5.	Calcium	75	104	24	78	142	44.09	52.1	53.2	321	268
6.	Chlorides	250	114	240	210	320	90	170	180	1296	220
7.	Sulphates	200	38	132	14	24	10.5	32	38	16	104
8.	Flourides	1	0.43	<MDL	0.206	0.132	0.21	0.46	0.306	0.203	0.875
9.	Nitrates	45	<MDL	<MDL	--	--	--	--	--	--	--
10.	Total Iron	0.3	0.014	0.018	0.006	0.013	0.891	0.128	0.136	0.717	0.869
11.	Residual Chlorine	0.2	--	--	<MDL	<MDL	4.43	<0.88	<MDL	<MDL	<MDL
12.	Lead	0.01	<MDL	<MDL	0.008	0.011	<MDL	<MDL	<MDL	<MDL	<MDL
13.	Cadmium	0.003	<MDL	<MDL	0.386	0.344	0.026	0.024	0.026	0.044	0.016
14.	Zinc	5	0.001	0.001	0.002	0.005	0.126	0.219	0.212	0.089	0.096
15.	Total Chromium	0.05	<MDL	<MDL	<MDL	0.056	<MDL	0.128	<MDL	0.017	<MDL
16.	Total Kjeldhal Nitrogen	--	3.1	3.0	--	--	--	--	--	--	--

17.	Phenolic Compounds	0.001	<MDL	<MDL	--	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
18.	COD	--	48	48	--	--	--	--	--	--	--
19.	Turbidity	1 NTU	--	<1.0	1	2.0	2.0	1.0	2.0	Not performed	Not performed

**** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.**

2. Sample Results from Kudikadu OHT

S No.	Parameter	Standards**	18.02.2013 Results (mg/L)	18.04.2013 Results (mg/L)	11.09.2013 Results (mg/L)	23.10.2013 Results (mg/L)	27.12.2013 Results (mg/L)	30.01.2014 Results (mg/L)	28.02.2014 Results (mg/L)	26.04.2014 Results (mg/L)
1.	PH	6.5 – 8.5	7.03	7.32	6.56	7.42	7.07	7.12	7.25	7.08
2.	TDS	500	400	492	300	500	440	504	620	884
3.	Total Hardness	200	164	304	452	450	150	300	200	1310
4.	Magnesium	30	13	28	24	26	14.59	43.7	14	26.73
5.	Calcium	75	45	76	141	139	36.07	48	56	480.96
6.	Chlorides	250	205	170	130	230	65	110	90	140
7.	Sulphates	200	16	120	16	18	4.2	26	306	28
8.	Flourides	1	0.53	<MDL	0.350	0.115	0.24	0.41	0.108	0.46
9.	Nitrates	45	<MDL	<MDL	--	--	--	--	--	--
10.	Total Iron	0.3	0.025	0.014	0.01	0.011	0.806	0.126	0.536	0.09
11.	Residual Chlorine	0.2	--	--	<MDL	<MDL	0.89	<0.88	<MDL	<MDL
12.	Lead	0.01	<MDL	<MDL	0.009	0.008	<MDL	<MDL	<MDL	<MDL
13.	Cadmium	0.003	<MDL	<MDL	0.377	0.328	0.014	0.022	0.009	0.011
14.	Zinc	5	0.001	0.002	0.004	0.004	0.101	0.216	0.013	0.019
15.	Total Chromium	0.05	<MDL	<MDL	0.052	0.054	<MDL	0.122	<MDL	<MDL
16.	Total Kjeldhal Nitrogen	--	2.0	2.0	--	--	--	--	--	--
17.	Phenolic Compounds	0.001	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
18.	COD	--	56	32	--	--	--	--	--	--

19.	Turbidity	1 NTU	--	<1.0	2.0	2.0	2.0	2.0	2.0	Not performed
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**** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.**

3. Sample results from inside the premises of M/s Tagros (Near HW Storage Shed)

S No.	Parameter	Standards**	18.04.2013 Results (mg/L)	11.09.2013 Results (mg/L)	11.11.2013 Results (mg/L)	27.12.2013 Results (mg/L)	30.01.2014 Results (mg/L)	26.02.2014 Results (mg/L)	26.04.2013 Results (mg/L)
1.	PH	6.5 – 8.5	6.97	7.61	7.20	6.29	5.41	6.74	6.08
2.	TDS	500	756	300	144	880	2403	860	1684
3.	Total Hardness	200	432	288	52	120	210	130	1350
4.	Magnesium	30	49	38	3.89	7.29	27	7.26	7.29
5.	Calcium	75	92	44	14	36.07	40.08	36.09	529.06
6.	Chlorides	250	270	160	42	250	600	256	570
7.	Sulphates	200	142	8	22	19	164	28	68
8.	Flourides	1	<MDL	0.906	0.23	0.21	0.56	0.610	0.84
9.	Nitrates	45	<MDL	--	0.016	--	--	--	--
10.	Total Iron	0.3	0.017	12	0.155	0.21	0.136	0.220	0.012
11.	Residual Chlorine	0.2		<MDL	--	<0.89	<0.88	<MDL	<MDL
12.	Lead	0.01	<MDL	0.012	<MDL	<MDL	<MDL	<MDL	<MDL
13.	Cadmium	0.003	<MDL	0.390	0.024	0.016	0.012	0.016	0.009
14.	Zinc	5	0.002	0.009	0.225	0.16	0.254	0.160	0.047
15.	Total Chromium	0.05	<MDL	<MDL	0.085	0.06	0.332	<MDL	<MDL
16.	Total Kjeldhal Nitrogen	--	4.0	--	1.0	--	--	--	--
17.	Phenolic Compounds	0.001	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
18.	COD	--	56	--	80	--	--	--	--

19.	Turbidity	1 NTU	<1.0	1.0	2.0	1.8	0.4	2.0	Not performed
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**** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.**

4. Sample results from inside the premises of M/s Tagros (Near VTFD Inlet)

S No.	Parameter	Standards**	25.03.2014 Results (mg/L)
1.	PH	6.5 – 8.5	6.17
2.	TDS	500	483232
3.	Total Hardness	200	1790
4.	Magnesium	30	236
5.	Calcium	75	329
6.	Chlorides	250	82900
7.	Sulphates	200	38420
8.	Flourides	1	1.1
9.	Nitrates	45	--
10.	Total Iron	0.3	0.026
11.	Residual Chlorine	0.2	<MDL
12.	Lead	0.01	<MDL
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.022
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	--
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	--
19.	Turbidity	1 NTU	Not performed

** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.

5. Sample results from inside the premises of M/s SPIC campus

S No.	Parameter	Standards**	18.02.2013 Results (mg/L)
1.	PH	6.5 – 8.5	7.49
2.	TDS	500	728
3.	Total Hardness	200	150
4.	Magnesium	30	1.4
5.	Calcium	75	58
6.	Chlorides	250	230
7.	Sulphates	200	85
8.	Flourides	1	0.72
9.	Nitrates	45	<MDL
10.	Total Iron	0.3	0.038
11.	Residual Chlorine	0.2	--
12.	Lead	0.01	<MDL
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.017
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	3.6
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	104
19.	Turbidity	1 NTU	--

** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.

6. Sample results from Opp to JK Pharma

S No.	Parameter	Standards**	18.02.2013 Results (mg/L)
1.	PH	6.5 – 8.5	5.68
2.	TDS	500	1092
3.	Total Hardness	200	634
4.	Magnesium	30	73
5.	Calcium	75	133
6.	Chlorides	250	296
7.	Sulphates	200	440
8.	Flourides	1	0.46
9.	Nitrates	45	<MDL
10.	Total Iron	0.3	5.334
11.	Residual Chlorine	0.2	--
12.	Lead	0.01	<MDL
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.006
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	4.5
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	128
19.	Turbidity	1 NTU	--

** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.

7. Sample result from Inside Chemplast, East of VCM Storage

S No.	Parameter	Standards**	18.02.2013 Results (mg/L)
1.	PH	6.5 – 8.5	7.41
2.	TDS	500	240
3.	Total Hardness	200	180
4.	Magnesium	30	21
5.	Calcium	75	38
6.	Chlorides	250	60
7.	Sulphates	200	89
8.	Flourides	1	0.54
9.	Nitrates	45	<MDL
10.	Total Iron	0.3	0.072
11.	Residual Chlorine	0.2	--
12.	Lead	0.01	<MDL
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.001
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	1.0
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	48
19.	Turbidity	1 NTU	--

** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.

17.	Phenolic Compounds	0.001	<MDL	<MDL	<MDL	<MDL	<MDL	<0.001	<MDL	<MDL	<MDL	<MDL
18.	COD	--	--	--	--	--	--	--	--	--	--	--
19.	Turbidity	1 NTU	<1.0	1.0	1.0	2.0	2.0	<1.0	<1.0	2.0	Not performed	Not performed

**** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.**

9. Sample result from Inside Chemplast, East of SLF

S No.	Parameter	Standards**	09.04.2013 Results (mg/L)
1.	PH	6.5 – 8.5	7.36
2.	TDS	500	696
3.	Total Hardness	200	362
4.	Magnesium	30	47
5.	Calcium	75	67
6.	Chlorides	250	175
7.	Sulphates	200	90
8.	Flourides	1	0.03
9.	Nitrates	45	--
10.	Total Iron	0.3	0.021
11.	Residual Chlorine	0.2	<MDL
12.	Lead	0.01	0.012
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.016
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	--
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	--
19.	Turbidity	1 NTU	<1.0

** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.

10. Sample result from Inside Chemplast, East of HW Storage Shed

S No.	Parameter	Standards**	12.07.2013 Results (mg/L)
1.	PH	6.5 – 8.5	7.49
2.	TDS	500	528
3.	Total Hardness	200	336
4.	Magnesium	30	21
5.	Calcium	75	99
6.	Chlorides	250	145
7.	Sulphates	200	84
8.	Flourides	1	<MDL
9.	Nitrates	45	--
10.	Total Iron	0.3	0.007
11.	Residual Chlorine	0.2	<MDL
12.	Lead	0.01	0.012
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.003
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	--
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	--
19.	Turbidity	1 NTU	1.0

**** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.**

11. Sample result from Inside Chemplast, West of ETP

S No.	Parameter	Standards**	12.07.2013 Results (mg/L)
1.	PH	6.5 – 8.5	7.56
2.	TDS	500	560
3.	Total Hardness	200	172
4.	Magnesium	30	11
5.	Calcium	75	51
6.	Chlorides	250	190
7.	Sulphates	200	48
8.	Flourides	1	0.34
9.	Nitrates	45	--
10.	Total Iron	0.3	0.004
11.	Residual Chlorine	0.2	<MDL
12.	Lead	0.01	0.011
13.	Cadmium	0.003	<MDL
14.	Zinc	5	0.004
15.	Total Chromium	0.05	<MDL
16.	Total Kjeldhal Nitrogen	--	--
17.	Phenolic Compounds	0.001	<MDL
18.	COD	--	--
19.	Turbidity	1 NTU	1

** Comparison with the Requirement (Acceptable Limit) as per IS 10500, 1991 R. 1993 1st Rev.