

WATER QUALITY OF RIVER NAGAVALI - 2013

Penta U/s

Month	Year	Temp., °C	pH	DO, mg/l	BOD, mg/l	COD, mg/l	Cond., µS/cm	Nitrate- N, mg/l	
Jan	2013	22	7.9	7.1	2.0	11.6	289	1.635	
Feb		26	8.0	6.9	2.3	12.3	292	0.856	
Mar		24	8.1	6.8	1.2	8.0	270	0.361	
Apr		32	8.3	7.1	1.2	8.1	204	0.513	
May		35	8.2	7.2	1.2	11.2	186	0.301	
June		31	7.7	7.9	2.0	18.3	133	1.787	
July		24	7.4	8	1	9.8	139	1.158	
Aug		23	8.1	7.8	0.6	10.0	154	0.544	
Sep		28	7.8	7.8	1.8	13.9	146	1.825	
Oct				8	7.9	1.5	20.9	188	0.835
Nov				8.4	7.9	0.25	4.1	221	0.835
Dec									
Minimum		22.0	7.4	6.8	0.3	4.1	133.0	0.3	
Maximum		35.0	8.4	8.0	2.3	20.9	292.0	1.8	
Average		27.2	8.0	7.5	1.4	11.7	202.0	1.0	

Jaykaypur D/s

Month	Year	Temp., °C	pH	DO, mg/l	BOD, mg/l	COD, mg/l	Cond., µS/cm	Nitrate- N, mg/l
Jan	2013	22	8.4	6.8	3.3	23.6	282	0.473
Feb		25	8.2	7.2	2.8	12.6	338	0.552
Mar		27	8.2	7.1	2.8	17.9	275	0.312
Apr		30	7.8	6.9	3.2	28.9	292	0.087
May		30	7.8	7.1	4.9	33.6	265	0.554
June		31	7.7	7.5	3.5	36.6	185	1.889
July		24	7.8	7.5	3.4	24.6	167	3.549
Aug		23	8.1	8.0	2.5	24.0	155	0.185
Sep		28	7.7	6.8	1.9	15.7	153	0.182
Oct				7.8	7.6	2.4	25.2	191

Nov		7.9	7.4	1.2	6.9	245	1.729	
Dec								
Minimum		22.0	7.7	6.8	1.2	6.9	153	0.1
Maximum		31.0	8.4	8.0	4.9	36.6	338	3.5
Average		26.7	7.9	7.3	2.9	22.7	232	1.0

Raygada D/s

Month	Year	Temp., °C	pH	DO, mg/l	BOD, mg/l	COD, mg/l	Cond., µS/cm	Nitrate- N, mg/l	
Jan	2013	20	7.8	7.4	2.2	16.8	226	1.250	
Feb		24	7.9	7.4	2.4	18.6	266	0.090	
Mar		30	7.7	7.2	1.8	10.0	224	0.378	
Apr		26	8.3	7.3	2.3	20.2	272	0.825	
May		29	7.3	6.9	2.9	22.4	266	1.143	
June		30	7.8	8.0	2.1	18.3	177	2.366	
July		24	8.0	7.9	1.9	13.1	160	0.634	
Aug		23	8.1	8.0	2.4	18.0	141	0.258	
Sep		27	7.8	7.8	2.0	17.4	143	1.734	
Oct				8.1	7.8	2	23.8	193	1.733
Nov				7.8	7.8	1.25	9.75	253	1.733
Dec									
Minimum		20.0	7.3	6.9	1.3	9.8	141.0	0.1	
Maximum		30.0	8.3	8.0	2.9	23.8	272.0	2.4	
Average		25.9	7.9	7.6	2.1	17.1	211.0	1.1	

NH ₄ -N, mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml	SI	DI	Class	Nitrite-N, mg/l	T. Alk., mg/l	P. Alk., mg/l
ND	3500	1700	5.8	0.48	C	0.029	104	BDL
0.112	2200	1300	--	--	--	0.007	108	BDL
0.112	1700	790	--	--	--	0.021	96	BDL
0.336	2200	790	4.4	0.5	C	0.009	92	2
0.165	3300	1300				0.026	88	BDL
0.388	2700	1700	--	--	--	BDL	48	BDL
0.336	160000	92000	--	--	--	0.063	56	BDL
0.220	3300	1700	--	--	--	BDL	70	BDL
0.224	54000	22000	--	--	--	0.022	58	BDL
0.168	13000	4900	6.1	0.67	B	0.007	88	0
0.224	9200	1300				0.022	84	8
0.112	1700	790	4.40	0.48	0.0	0.0	48.0	0.0
0.388	160000	92000	6.10	0.67	0.0	0.1	108.0	8.0
0.229	23191	11771	5.43	0.55	#DIV/0!	0.0	81.1	3.3

NH ₄ -N, mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml	SI	DI	Class	Nitrite-N, mg/l	T. Alk., mg/l	P. Alk., mg/l
ND	2400	1300	5.0	0.65	C	0.011	110	8
0.384	1700	790	--	--	--	0.015	125	BDL
0.392	3500	1300	--	--	--	0.023	92	4.0
0.280	2800	1100	4.7	0.88	C	0.008	100	BDL
0.385	4900	1700				0.002	100	BDL
0.388	7900	3300	--	--	--	BDL	60	BDL
0.560	160000	4900	--	--	--	0.040	72	BDL
0.495	35000	17000	--	--	--	BDL	72	BDL
0.224	54000	35000	--	--	--	0.029	62	BDL
0.224	43000	28000	6.1	0.65	B	0.016	80	0

0.392	24000	4900				0.046	104	BDL
0.224	1700.0	790	4.70	0.65	0.0	0.0	60.0	0.0
0.560	160000.0	35000	6.10	0.88	0.0	0.0	125.0	8.0
0.372	30836.4	9026	5.27	0.73	#DIV/0!	0.0	88.8	4.0

NH ₄ -N, mg/l	TC, MPN/ 100 ml	FC, MPN/ 100 ml	SI	DI	Class	Nitrite-N, mg/l	T. Alk., mg/l	P. Alk., mg/l
ND	5400	2400	5.0	0.45	C	0.017	112	BDL
0.224	2400	1300	--	--	--	0.010	80	BDL
0.224	1700	330	--	--	--	BDL	104	BDL
0.280	1300	490	4	0.32	D	0.023	94	2
0.275	3300	780				0.0069	100	BDL
0.277	7900	4900	--	--	--	BDL	68	BDL
0.336	160000	>160000	--	--	--	0.026	72	BDL
0.440	92000	54000	--	--	--	0.006	70	BDL
0.168	35000	24000	--	--	--	0.044	58	BDL
0.224	24000	7900	6.16	0.56	B	0.014	88	0
0.224	16000	3500				0.028	98	BDL
0.168	1300.0	330	4.00	0.32	0.0	0.0	58.0	0.0
0.440	160000.0	54000	6.16	0.56	0.0	0.0	112.0	2.0
0.267	31727.3	9960	5.05	0.44	#DIV/0!	0.0	85.8	1.0

Hardness CaCO ₃ , mg/l	Ca as CaCO ₃ , mg/l	Mg as CaCO ₃ , mg/l	Chloride , mg/l	Sulphate , mg/l	PO ₄ ³⁻ -P, mg/l	Fluoride, mg/l	Total Kjeldahl N, mg/l	TSS, mg/l
112	76	36	22.6	8.25	0.133	0.202	3.60	78
98	78	20	16.7	4.4	0.112	0.273	1.7	84
94	58	36	18.6	10.30	0.062	0.284	2.52	58
96	60	36	13.5	6.0	0.095	0.265	2.0	34
84	64	20	10.3	2.5	0.060	0.225	2.2	28
52	32	20	5.5	14.4	0.021	0.207	1.7	232
60	40	20	6.8	8.9	0.803	0.204	3.1	182
60	38	22	5.8	3.7	0.034	0.234	4.4	340
52	44	8	6.7	6.8	0.006	0.203	1.68	1080
70	40	30	10.3	8.084	0.086	0.176	2.24	250
84	56	28	6.6	7.726	0.083	0.188	2.24	30
52	32	8	5.5	2.50	0.006	0.176	1.67	28
112	78	36	22.6	14.40	0.803	0.284	4.43	1080
78	53	25	11.2	7.37	0.136	0.224	2.48	218

Hardness CaCO ₃ , mg/l	Ca as CaCO ₃ , mg/l	Mg as CaCO ₃ , mg/l	Chloride , mg/l	Sulphate , mg/l	PO ₄ ³⁻ -P, mg/l	Fluoride, mg/l	Total Kjeldahl N, mg/l	TSS, mg/l
116	76	40	26.7	12.08	0.081	0.195	3.08	90
120	80	40	19.7	12.4	0.116	0.271	3.9	102
100	60	40	20.7	16.72	0.054	0.293	3.08	40
96	80	16	22.2	11.1	0.005	0.311	2.5	54
96	68	28	25.3	4.5	0.045	0.232	2.2	34
82	44	38	6.5	33.0	0.039	0.222	2.5	976
72	36	36	8.7	12.8	0.553	0.162	3.1	2324
56	40	16	5.8	2.4	0.080	0.173	3.1	20
56	38	18	8.7	9.0	0.152	0.188	1.96	1640
70	48	22	11.48	9.200	0.102	0.195	1.68	268

96	66	30	8.48	5.845	0.1408	0.186	3.92	28
56	36.0	16.0	5.8	2.36	0.005	0.162	1.68	20.0
120	80.0	40.0	26.7	32.98	0.553	0.311	3.92	2324.0
87	57.8	29.5	14.9	11.71	0.124	0.221	2.81	506.9

Hardness CaCO ₃ , mg/l	Ca as CaCO ₃ , mg/l	Mg as CaCO ₃ , mg/l	Chloride , mg/l	Sulphate , mg/l	PO ₄ ³⁻ -P, mg/l	Fluoride, mg/l	Total Kjeldahl N, mg/l	TSS, mg/l
88	56	32	8.0	4.06	0.008	0.199	3.10	82
88	60	28	21.6	10.4	0.117	0.254	2.5	66
84	48	36	13.7	5.72	0.086	0.281	1.40	62
80	48	32	16.4	10.8	0.323	0.285	2.5	38
94	72	22	16.4	2.3	0.034	0.257	3.3	74
74	46	28	7.4	22.7	0.320	0.241	2.2	1624
56	44	12	8.7	10.4	0.113	0.135	4.7	258
52	34	18	5.8	5.2	0.094	0.228	4.2	208
54	34	20	6.7	13.6	0.003	0.181	2.52	900
72	44	28	10.48	9.576	0.102	0.191	3.08	282
94	72	22	11.3	7.711	0.049	0.175	1.68	24
52.0	34.0	12.0	5.8	2.26	0.003	0.135	1.40	24.0
94.0	72.0	36.0	21.6	22.69	0.323	0.285	4.71	1624.0
76.0	50.7	25.3	11.5	9.30	0.114	0.221	2.84	328.9

TDS, mg/l	TFS, mg/l	Turbidity, NTU	Na, mg/l	K, mg/l	B, mg/l	Cadmium, micro gm/l	Copper, micro gm/l	Lead, micro gm/l
173	224	19.7	13.5	3.0	0.068	--	--	--
161	226	8.6	10.5	3.2	0.060	0.6	2.2	6.8
156	180	11.0	11.9	3.4	0.076	--	--	--
120	128	6.0	7.8	1.7	0.030	--	--	--
120	118	11.4	6.7	3.0	0.222	--	--	--
77	278	950.0	3.2	2.0	0.151	--	--	--
82	220	160	3.6	1.9	0.037	--	--	--
94	378	80	3.0	1.8	0.022	--	--	--
88	1000	340	4.5	2.6	0.226	--	--	--
111	331	110	6.67	2.07	0.015			
126	124	19	4.35	1.99	0.011			
77	118	6.0	3.0	1.7	0.011	0.6	2.2	6.8
173	1000	950.0	13.5	3.4	0.226	0.6	2.2	6.8
119	292	156.0	6.9	2.4	0.083	0.6	2.2	6.8

TDS, mg/l	TFS, mg/l	Turbidity, NTU	Na, mg/l	K, mg/l	B, mg/l	Cadmium, micro gm/l	Copper, micro gm/l	Lead, micro gm/l
170	214	15.6	16.7	1.7	0.076	--	--	--
175	234	9.9	11.4	2.9	0.109	0.6	2.6	8.8
157	120	5.0	12.4	4.8	0.042	--	--	--
164	178	18.0	14.4	3.2	0.015	--	--	--
172	168	12.0	12.5	3.6	0.098	--	--	--
115	1020	800.0	4.4	2.7	0.117	--	--	--
108	2202	140	6.1	2.0	0.143	--	--	--
96	86	75	3.6	1.2	0.060	--	--	--
92	1294	420	5.3	2.6	0.147	--	--	--
117	356	130	6.99	2.19	0.011			

142	144	26	6.68	1.91	0.007			
92.0	86.0	5.0	3.6	1.2	0.007	0.6	2.6	8.8
175.0	2202.0	800.0	16.7	4.8	0.147	0.6	2.6	8.8
137.1	546.9	150.1	9.1	2.6	0.075	0.6	2.6	8.8

TDS, mg/l	TFS, mg/l	Turbidity, NTU	Na, mg/l	K, mg/l	B, mg/l	Cadmium, micro gm/l	Copper, micro gm/l	Lead, micro gm/l
130	180	31.7	6.9	2.4	0.019	--	--	--
145	180	11.4	12.6	3.6	0.034	0.6	2.8	7.2
133	120	7.0	8.9	2.6	0.011	--	--	--
149	152	24.0	10.3	3.1	0.053	--	--	--
172	208	30.5	10.7	4.2	0.173	--	--	--
114	1664	1100.0	5.2	3.1	0.166	--	--	--
102	310	100	5.5	2.1	0.079	--	--	--
88	240	90	3.9	2.1	0.034	--	--	--
86	848	260	4.4	2.9	0.207	--	--	--
119	378	120	6.14	2.41	0.003			
148	134	27	8.51	2.61	0.011			
86.0	120.0	7.0	3.9	2.1	0.003	0.6	2.8	7.2
172.0	1664.0	1100.0	12.6	4.2	0.207	0.6	2.8	7.2
126.0	401.3	163.8	7.6	2.8	0.072	0.6	2.8	7.2

m Total, micro gm/l	Nickel, micro gm/l	Zinc, micro gm/l	Iron Total, micro gm/l	Mercury, micro gm/l	Cr(VI)
25	--	--	1120	BDL	BDL
15	1.1	8.4	1010	BDL	BDL
8	--	--	965	BDL	BDL
27	--	--	990	BDL	BDL
13	--	--	800	BDL	BDL
30	--	--	12256	BDL	BDL
50	--	--	12646	BDL	BDL
35	--	--	12148	BDL	2
36	--	--	12757	BDL	BDL
27			2983		BDL
18			1798		
8.4	1.1	8.4	800	0.0	
50.0	1.1	8.4	12757		
25.9	1.1	8.4	5407	#DIV/0!	

m Total, micro gm/l	Nickel, micro gm/l	Zinc, micro gm/l	Iron Total, micro gm/l	Mercury, micro gm/l	Cr(VI)
32	--	--	2000	BDL	BDL
18	1.2	9.2	700	BDL	BDL
7	--	--	1130	BDL	BDL
33	--	--	1980	BDL	BDL
10	--	--	1489	BDL	BDL
33	--	--	2189	BDL	BDL
35	--	--	12545	BDL	BDL
22	--	--	5512	BDL	5
33	--	--	13149	BDL	BDL
32			4887		BDL

38			2375	
6.7	1.2	9.2	700.0	
38.0	1.2	9.2	13149.0	
26.6	1.2	9.2	4359.6	

m Total, micro gm/l	Nickel, micro gm/l	Zinc, micro gm/l	Iron Total, micro gm/l	Mercury, micro gm/l	Cr(VI)
18	--	--	1120	BDL	BDL
10	1.2	9.4	790	BDL	BDL
15	--	--	475	BDL	BDL
40	--	--	2270	BDL	BDL
17	--	--	2644	BDL	BDL
21	--	--	12132	BDL	BDL
70	--	--	11400	BDL	BDL
30	--	--	11782	BDL	5
27	--	--	13646	BDL	BDL
38			5501		BDL
25			2094		
10.0	1.2	9.4	475.0		
70.0	1.2	9.4	13646.0		
28.3	1.2	9.4	5804.9		