Table-1 Ground water Quality Status (Tube well) of Cuttack, Bhubaneswar and Puri cities (2013)

Location → Parameter (Permissible limit, max.- IS :10500 :2012) ↓	Month	Cuttack					Bhubaneswar						Puri			
		Jagatpur Industrial area	Madhupatna-Kalyan nagar area	Bidanasi – Tulsipur area	Badambadi area	Ranihat – Mangalabag area	Khandagiri area	Capital Hospital	Samantaraypur	Jharpada	Chandrasekhar pur	Secretariat - Governor House-area	Badadanda	Mausima Mandir	Sea beach site	Baliapanda
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(10)	(10)	(13)	(14)	(15)	(16)	(17)
pH (6.5 to 8.5)	A	8.5	8.2	8.1	8.4	8.4	6.9	7.4	7.5	7.3	7.8	7.5	7.5	8.2	8.4	7.1
	O	6.1	6.8	7.3	7.1	7.3	5.3	6.5	6.5	7.1	6.5	6.5	7.0	7.1	7.6	7.9
Conductivity, µS/cm	A	642	280	143	261	284	377	289	489	227	115	179	888	855	1160	390
	O	610	435	159	254	241	260	228	819	232	255	98	1450	734	1056	850
Biological Oxygen Demand, mg/l	A	0.3	0.6	0.5	0.2	0.2	0.3	0.9	0.8	0.1	0.4	0.9	1.7	2.2	1.5	1.2
	O	0.4	0.5	0.3	0.4	0.4	0.3	1.2	0.4	0.2	1.1	0.6	0.6	0.3	0.3	0.6
Chemical Oxygen Demand, mg/l	A	1.8	7.1	1.8	3.6	3.6	5.7	5.7	7.6	9.0	3.8	3.8	6.6	5.0	5.0	3.3
	O	6.8	3.4	5.1	10.2	10.2	20.4	20.5	3.4	9.0	15.3	18.7	8.4	15.4	5.6	8.4
Turbidity, NTU (5)	A	4.0	16.0	3.0	9.0	2.0	15.0	91.0	8.0	55.0	28.0	83.0	3.0	2.0	2.0	2.0
	O	10	33	17	8	4	4	120	22	55	85	12	6	120	4	4
Total Dissolved Solids, mg/l (2000)	A	367	163	93	140	152	210	169	262	135	72	103	537	505	684	241
	O	315	232	93	150	144	137	129	467	135	141	52	789	443	590	476
Total Fixed Solids, mg/l	A	344	208	82	152	132	224	204	256	140	76	124	502	470	620	222
	O	308	206	66	132	104	110	150	426	140	140	44	782	446	574	468
Total Alkalinity, mg/l (600)	A	156	84	52	78	104	22	22	68	32	34	36	268	224	312	84
	O	20	108	64	116	108	16	28	124	32	52	12	200	200	184	168
T. Hardness (as $CaCO_3$), mg/l (600)	A	144	74	60	68	84	60	32	58	32	44	44	188	168	350	76
	O	130	116	54	86	90	48	32	230	32	74	16	260	230	280	230

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(10)	(10)	(13)	(14)	(15)	(16)	(17)
Ca, mg/l (200)	A	33.7	20.0	13.6	14.4	20.0	12.8	8.0	14.4	8.0	9.6	9.6	51.3	43.3	60.1	20.0
	O	35.3	30.5	14.4	23.2	24.8	10.4	7.2	60.1	8.0	24.0	4.0	46.1	58.1	44.1	42.1
Mg, mg/l(100)	A	14.6	5.8	6.3	7.8	8.3	6.8	2.9	5.4	2.9	4.9	4.9	14.6	14.6	48.7	6.3
	O	10.2	9.7	4.4	6.8	6.8	5.4	3.4	19.5	2.9	3.4	1.5	35.3	20.7	41.4	30.5
Chloride, mg/l (1000)	A	103.0	32.9	13.4	20.3	13.5	72.8	62.8	95.2	46.2	15.4	22.1	139.6	148.8	134.4	62.8
	O	99.6	57.5	9.4	13.2	11.3	48.1	49.0	99.0	46.2	25.5	10.4	292.0	114.0	174.4	92.4
Sulphate, mg/l (400)	A	22.0	1.1	9.7	4.5	4.4	20.0	15.0	6.5	4.0	5.0	5.2	17.3	8.5	115.3	20.8
	O	79.27	12.94	4.73	2.99	3.99	1.12	2.36	121.39	4.0	17.03	1.49	71.04	33.30	88.13	85.69
Nitrate as NO_3, mg/l (45)	A	10.05	13.21	3.79	3.53	4.93	38.02	11.69	40.61	24.39	8.45	20.60	6.75	42.32	2.25	6.42
	O	45.39	23.29	0.25	3.84	1.84	42.02	3.45	36.47	24.07	22.95	9.85	56.15	6.81	50.44	49.37
Ammonium-N, mg/l (0.5)	A	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	O	0.168	0.112	0.168	0.112	0.112	0.112	0.112	0.224	BDL	0.112	0.280	0.112	0.112	0.112	0.112
Total Kjeldahl Nitrogen, mg/l	A	2.2	2.0	1.4	2.0	2.0	BDL	BDL	1.4	1.1	BDL	BDL	BDL	BDL	BDL	0.8
	O	1.12	1.40	2.24	1.12	1.12	1.12	1.12	1.12	1.1	0.56	1.12	1.12	1.68	1.68	1.12
Fluoride, mg/l (1.5)	A	0.170	0.120	0.141	0.145	0.168	0.175	0.108	0.152	0.141	0.137	0.168	0.100	0.190	0.173	0.154
	O	0.093	0.251	0.146	0.409	0.401	0.068	0.043	0.117	0.141	0.071	0.040	0.084	0.090	0.011	0.062
Phosphate-P, mg/l	A	BDL	0.079	0.141	0.074	0.036	0.036	0.015	BDL	0.013	0.008	0.008	0.246	1.930	0.261	5.396
	O	0.016	0.035	0.029	0.265	0.097	0.230	0.056	0.054	0.013	0.051	0.193	0.155	0.035	0.122	0.034
Sodium, mg/l	A	62.3	19.8	8.8	12.7	8.2	41.1	40.6	53.9	28.6	9.1	14.4	84.5	89.3	81.2	38.9
	O	54.6	36.0	6.7	9.6	8.5	27.7	28.6	53.8	28.6	16.2	6.3	174.1	63.6	93.7	59.5
Potassium, mg/l	A	10.8	3.7	1.9	2.6	2.1	11.6	11.8	12.4	11.1	3.1	4.1	40.2	38.1	39.2	12.5
	O	9.5	5.5	2.2	16.0	3.1	1.2	5.3	22.6	11.1	4.2	0.5	16.0	15.9	11.9	13.9
Boron, mg/l (1.0)	A	0.011	0.034	0.053	0.038	0.026	0.068	0.011	0.004	0.019	0.026	0.034	0.049	0.079	0.068	0.038
	O	0.022	0.011	0.090	0.083	0.117	0.037	0.003	0.098	0.019	0.022	0.034	0.336	0.094	0.234	0.132
Chromium (VI), mg/l	A	0.005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	O	BDL	BDL	BDL	BDL	BDL	BDL	0.008	BDL	BDL	BDL	0.005	0.007	BDL	BDL	BDL
Chromium, Total, mg/l (0.05)	A	0.030	0.025	0.004	0.008	0.013	0.004	0.010	0.002	0.004	0.002	0.006	0.015	0.003	0.005	0.010
	O	0.013	0.017	0.032	0.010	0.022	0.027	0.053	0.005	0.004	0.027	0.033	0.007	0.020	0.022	0.010
Iron,Total, mg/l (0.3)	A	0.160	4.940	0.072	4.300	0.144	0.740	2.620	11.100	6.500	6.990	11.300	0.485	0.290	0.780	0.390
	O	1.597	0.285	0.862	2.242	0.042	0.655	14.515	3.380	6.325	13.478	1.645	1.195	7.511	0.412	0.904

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(10)	(10)	(13)	(14)	(15)	(16)	(17)
Mercury, mg/l(0.001)	A	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	O	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Coliform, MPN/100ml (Absent)	A	<2	8	<2	13	<2	<2	<2	<2	<2	<2	<2	5	13	23	8
	O	23	<2	<2	<2	2	<2	<2	33	<2	<2	23	49	<2	240	540
Fecal Coliform, MPN/100ml (Absent)	A	<2	2	<2	4	<2	<2	<2	<2	<2	<2	<2	2	5	8	2
	O	23	<2	<2	<2	2	<2	<2	2	<2	<2	<2	8	<2	14	27

BDL = Below Detection Limit A : April O : October