



Ground Water Quality Analysis Report- Post Monsoon, 2022 (October-November 2022)

Parameters	Date	Colour	Odour	Temp.	pH	Total Dissolved Solids (mg/l)	Electrical Conductivity(µs/cm)	Chemical Oxygen Demand(mg/l)	Total Hardness(mg/l)	Calcium Hardness(mg/l)	Magnesium Hardness (mg/l)	Total Alkalinity(mg/l)	Chloride (mg/l)	Fluoride(mg/l)	Nitrate- N(mg/l)	Nitrite- N(mg/l)	Sulphate (mg/l)	Phosphate(mg/l)	Sodium(mg/l)	Potassium(mg/l)	Sodium Adsorption Ratio	Arsenic(mg/l)	Nickel(mg/l)	Copper(mg/l)	Mercury(mg/l)	Chromium(mg/l)	Cadmium(mg/l)	Zinc(mg/l)	Lead(mg/l)	Iron(mg/l)	
Drinking Water Requirement (acceptable limit) as per BIS IS 10500:2012					6.5-8.5	500	N/A	N/A	200	N/A	N/A	200	250	1	45	N/A	200	N/A	N/A	N/A	N/A	0.01	0.02	0.05	0.001	N/A	0.003	5	0.01	0.3	
Drinking water Permissible limit(as per BIS IS 10500:2012)					NR	2000	N/A	N/A	600	N/A	N/A	600	1000	1.5	NR	N/A	400	N/A	N/A	N/A	N/A	0.05	NR	1.5	NR	N/A	NR	15	NR	NR	
Lowest Detection Limit					2	10 mg/l	05 µs/cm	05 mg/l	10 mg/l	5 mg/l	4 mg/l	20 mg/l	5 mg/l	0.2 mg/l	0.3 mg/l	0.02 mg/l	5 mg/l	0.2 mg/l	5 mg/l	1 mg/l	N/A	0.01	0.1	0.03	0.001	0.06	0.02	0.01	0.1	0.06	
S.No	Monitoring Location																														
District - Chamoli																															
1	Handpump, near patrol pump,Joshimath	14.10.22	Clear	Odourfree	14	7.12	99	164	BDL	70	51	19	102	10	BDL	BDL	6.26	BDL	16.5	BDL	0.85	ND	ND	0.4	ND	ND	ND	ND	ND	ND	1.07
2	Handpump, near Gopinath mandir, Gopeshwar	14.10.22	Clear	Odourfree	14	7.19	129	230	BDL	71	61	10	95	23	0.21	BDL	0.6	10.66	BDL	25.1	11	1.29	ND	ND	0.08	ND	ND	ND	ND	ND	0.99
District - Rudraprayag																															
3	Handpump, near Mandhakini ghat,Augestmuni	11.10.22	Clear	Odourfree	12	7.89	102	187	BDL	77	58	19	94	9	0.36	BDL	BDL	5.77	BDL	11.9	2.7	0.58	ND	ND	ND	ND	ND	ND	0.63	ND	3.62
4	Handpump, near Bus Stand, Rudraprayag town	11.10.22	Clear	Odourfree	13	7.6	113	201	BDL	105	78	27	103	13	0.33	BDL	BDL	BDL	BDL	11.2	2	0.47	ND	ND	ND	ND	ND	ND	ND	ND	2.07
District - Uttarkashi																															
5	Handpump near market,Chinyalisaur	15.10.22	Clear	Odourfree	13	7.37	108	175	BDL	61	42	19	110	BDL	0.33	BDL	BDL	53.31	BDL	18.5	1.9	1.02	ND	ND	ND	ND	ND	ND	0.42	BDL	0.7
6	Handpump near market, Uttarkashi	15.10.22	Clear	Odourfree	14	7.43	140	241	BDL	95	76	19	131	24	0.29	BDL	0.4	82.58	0.23	17.7	12.6	0.78	ND	ND	ND	ND	ND	0.95	BDL	1.82	
District- Tehri																															
7	Handpump, Bhagirathipuram, Tehri	10.10.22	Light yellow	Odourfree	10	7.45	152	281	BDL	162	126	36	98	17	0.05	BDL	BDL	BDL	BDL	21	BDL	0.71	ND	BDL	0.04	ND	ND	ND	0.41	ND	2.61
8	Handpump, near Chamund, New tehri	10.10.22	Clear	Odourfree	12	7.37	35	58.3	BDL	47	28	19	38	BDL	BDL	BDL	33.73	BDL	12.8	BDL	0.8	ND	BDL	BDL	ND	ND	ND	ND	ND	3.11	
District - Pauri Garhwal																															
9	Handpump near Devi Mandir, Kotdwar	01.10.22	Light yellow	Odourfree	15	7.34	219	472	BDL	272	210	62	255	20	0.31	BDL	BDL	17.5	BDL	16.1	1.6	0.42	ND	BDL	0.06	ND	ND	ND	2.34	ND	3.84
10	Handpump near Hanuman Mandhir, Siggadi Industrial Area, Kotdwar	01.10.22	Light yellow	Odourfree	15	7.54	201	421	6	230	195	35	235	11	0.25	BDL	BDL	21.95	BDL	19.2	1.8	0.54	ND	BDL	BDL	ND	ND	ND	0.72	ND	2.43

	Parameters	Date	Colour	Odour	Temp.	pH	Total Dissolved Solids (mg/l)	Electrical Conductivity(µs/cm)	Chemical Oxygen Demand(mg/l)	Total Hardness(mg/l)	Calcium Hardness(mg/l)	Magnesium Hardness (mg/l)	Total Alkalinity(mg/l)	Chloride (mg/l)	Fluoride(mg/l)	Nitrate - N(mg/l)	Nitrite - N(mg/l)	Sulphate (mg/l)	Phosphate(mg/l)	Sodium(mg/l)	Potassium(mg/l)	Sodium Adsorption Ratio	Arsenic(mg/l)	Nickel(mg/l)	Copper(mg/l)	Mercury(mg/l)	Chromium(mg/l)	Cadmium(mg/l)	Zinc(mg/l)	Lead(mg/l)	Iron(mg/l)	
District - Dehradun																																
11	Handpump near Rusan Pharma, Pharma city, Selaqui,Dehradun	06.10.22	Light yellow	Odourfree	14	6.95	113	200	BDL	121	106	15	88	11	0.38	BDL	BDL	25.73	BDL	16	1.1	0.63	ND	0.28	0.08	ND	ND	ND	ND	ND	ND	9.11
12	Handpump near Old Police Station, Selaqui, Industrial Area-1	06.10.22	Clear	Odourfree	15	5.96	100	178	BDL	82	62	20	68	20	0.48	BDL	BDL	14.82	BDL	19.3	1	0.92	ND	0.32	0.06	ND	ND	ND	0.9	ND	3.68	
13	Handpump near Honeywell Pvt. Ltd., Selaqui, Industrial Area-2	06.10.22	Light yellow	Odourfree	14	6.22	105	195	BDL	76	67	9	72	16	0.43	BDL	BDL	13.04	BDL	19.1	1	0.95	ND	0.22	0.07	ND	ND	ND	0.23	ND	3.85	
14	MSW Landfill site, Sisambada,Dehradun-1, North side	06.10.22	Clear	Odourfree	14	7.14	35	78	BDL	85	65	20	87	BDL	0.41	BDL	BDL	BDL	BDL	17.2	BDL	0.8	ND	0.26	0.05	ND	ND	ND	ND	ND	8.36	
15	MSW Landfill site, Sisambada,Dehradun-1, South side	06.10.22	Clear	Odourfree	15	6.4	93	165	BDL	83	66	17	92	9	0.36	BDL	BDL	BDL	BDL	17.5	BDL	0.83	ND	0.21	0.06	ND	ND	ND	ND	ND	6.72	
District - Udham Singh Nagar																																
16	Handpump at Santipuri Kiccha - 2, U.S. Nagar	14-10-2022	Clear	Odourfree	26	7.2	221	344	BDL	121	101	20	136	15	0.29	BDL	0.03	19.92	BDL	10.4	2.8	0.41	ND	ND	ND	ND	ND	ND	0.16	ND	1.08	
17	Handpump at Santipuri Kiccha - 1, U.S. Nagar	14-10-2022	Clear	Odourfree	26	7.7	230	348	11	165	142	23	188	13	0.37	BDL	BDL	18.99	BDL	11	4	0.37	ND	ND	ND	ND	ND	ND	0.69	ND	0.73	
18	Handpump at Pantnagar Industrial Area 2, U.S. Nagar	14-10-2022	Clear	Odourfree	26	7.5	205	295	13	122	85	37	182	15	0.33	BDL	0.02	16.57	BDL	14	3.5	0.54	ND	ND	ND	ND	ND	ND	0.21	ND	2.06	
19	Handpump at Pantnagar Industrial Area 1, U.S. Nagar	14-10-2022	Clear	Odourfree	26	7.4	214	313	BDL	142	128	14	216	12	0.33	BDL	0.16	13.71	BDL	12.7	4.3	0.46	ND	ND	ND	ND	ND	ND	0.16	ND	0.95	
20	Handpump at Sitarganj Industrial Area - 2, U.S. Nagar	14-10-2022	Clear	Odourfree	26	6.8	288	426	BDL	230	159	71	250	18	0.37	BDL	BDL	80.54	BDL	39.2	1.8	1.12	ND	ND	ND	ND	ND	ND	0.69	ND	1.33	
21	Handpump near Sitarganj Industrial Area - 1, U.S. Nagar	14-10-2022	Clear	Odourfree	26	6.8	266	402	BDL	290	105	185	508	22	0.3	BDL	BDL	16.02	BDL	26.1	7.4	0.66	ND	ND	ND	ND	ND	ND	0.21	ND	2.36	
22	Handpump near Gurudwara, Muradabad Road, Kashipur, U.S. Nagar	15-10-2022	Clear	Odourfree	26	7.3	214	332	BDL	250	229	21	378	39	0.37	BDL	0.023	70.29	BDL	73.2	2.7	2	ND	ND	ND	ND	ND	ND	4.34	ND	1.36	
23	Handpump near Kendriya Vidyalaya, Bazpur Road, Kashipur, U.S. Nagar	15-10-2022	Clear	Odourfree	26	7.3	262	356	11	138	123	15	200	13	0.28	BDL	0.08	16.97	BDL	17.3	2	0.63	ND	ND	ND	ND	ND	ND	0.63	ND	BDL	
24	Handpump near I.G.L Lagoon, Chamalida, Kashipur, U.S. Nagar	15-10-2022	Clear	Odourfree	26	7.5	204	446	BDL	163	145	18	155	14	0.41	BDL	0.09	7.25	BDL	15.9	2	0.54	ND	ND	ND	ND	ND	ND	0.12	ND	1.24	
25	Handpump at Chaiti Chauraha, Bajpur Road, Kashipur, U.S. Nagar	15-10-2022	Clear	Odourfree	25	7.3	222	328	BDL	130	109	21	264	15	0.29	BDL	BDL	7.32	BDL	32	15.3	1.21	ND	ND	ND	ND	ND	ND	0.18	ND	1.36	
26	Handpump near Govt Primary School, Kashipur, U.S. Nagar	15-10-2022	Clear	Odourfree	25	7.4	241	338	8	174	128	46	274	20	0.3	BDL	0.03	10.67	BDL	37.3	2.2	1.22	ND	ND	ND	ND	ND	ND	ND	ND	1.24	
27	Handpump at Industrial Area, Mahuakheraganj, Kashipur, U.S. Nagar	15-10-2022	Clear	Odourfree	26	7.6	312	432	10	121	90	31	233	12	0.28	BDL	BDL	BDL	BDL	35.2	2.9	1.38	ND	ND	ND	ND	ND	ND	ND	ND	0.97	
28	Handpump near old Industrial Area, Kashipur near IGL, U.S. Nagar.	15-10-2022	Clear	Odourfree	25	7.3	578	818	9	163	145	18	198	9	0.2	BDL	BDL	12.33	BDL	18.3	7.6	0.62	ND	ND	ND	ND	ND	ND	ND	ND	1.14	
District - Haridwar																																
29	Handpump at CHC, Bhagwanpur Industrial Area - 1	14-10-2022	Clear	Odourfree	20	8.1	484	757	5	74	32	42	270	28	0.9	0.358	BDL	BDL	2.04	48.2	1.5	2.44	ND	ND	ND	ND	ND	ND	0.46	ND	3.85	
30	Handpump at Sikendarpur, Lakeshwari, Bhagwanpur Industrial Area- 2	14-10-2022	Light Brown	Odourfree	20.5	7.9	455	712	6	60	25	35	208	26	0.84	0.398	BDL	6.06	1.62	54.5	1.5	3.06	ND	ND	0.06	ND	ND	ND	0.1	ND	2.9	
31	Handpump at Ramnagar Roorkee Industrial Area -1	14-10-2022	Clear	Odourfree	20.1	8	570	892	8	76	29	47	288	36	0.74	0.243	BDL	6.93	1.34	30.9	3.9	1.54	ND	ND	0.06	ND	ND	ND	0.1	ND	2.9	

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32	Handpump at Village Sunhera, Roorkee Industrial Area - 2	14-10-2022	Clear	Odourfree	19.4	8.1	464	725	6	70	24	46	232	14	0.88	0.352	BDL	BDL	1.98	55.3	2.4	2.87	ND	ND	ND	ND	ND	ND	ND	ND	2.07	
33	Handpump at Roshnabad, Collectorate, SIDCUL Industrial Area - 1	07-10-2022	Clear	Odourfree	19.7	8	563	880	6	80	34	46	314	46	0.98	BDL	ND	BDL	1.4	13.8	1.5	0.67	ND	ND	ND	ND	ND	ND	1.69	ND	2.68	
34	Handpump at Saleempur Mahdood Chowk, SIDCUL Industrial Area - 2	07-10-2022	Clear	Odourfree	20.9	7.6	1299	2030	10	140	56	84	288	68	1.13	0.774	BDL	42.37	1.42	33.6	1.1	1.23	ND	ND	ND	ND	ND	ND	ND	ND	2.17	
35	Handpump near Municipal Solid Waste Landfill Site, Near Model Primary School, Sarai, Jawalapur Haridwar	07-10-2022	Clear	Odourfree	19.3	7.6	730	1142	8	94	36	58	286	30	0.25	0.56	BDL	32.92	1.7	23.4	2.3	1.1	ND	ND	ND	ND	ND	ND	0.6	ND	3.15	
36	Handpump near Municipal Solid Waste Landfill Site, Near Jhanda Chowk, Sarai, Jawalapur Haridwar	07-10-2022	Clear	Odourfree	18.9	7.5	889	1390	4	98	34	64	238	54	0.86	0.794	0.273	61.8	1.49	20.2	1.5	0.89	ND	ND	ND	ND	ND	ND	ND	ND	3.17	
District - Pithoragarh																																
37	Handpump at Pithoragarh Town near Chandrabhaga, Pithoragarh	19-10-2022	Clear	Odourfree	13	6.95	149	220	BDL	186	110	76	142	18	0.36	BDL	BDL	22.68	BDL	28.4	4.2	0.9	ND	ND	0.17	ND	ND	ND	ND	ND	ND	1.33
38	Handpump at Pithoragarh Town near Pithoragarh fort, Pithoragarh	19-10-2022	Clear	Odourfree	14	7.33	134	190	BDL	171	113	58	106	13	0.25	BDL	0.04	BDL	BDL	11.2	3.4	0.37	ND	ND	0.18	ND	ND	ND	ND	ND	ND	2.38
District - Almora																																
39	Handpump near jai shri college, Khatyari, Almora	20-10-2022	Clear	Odourfree	14	7.71	109	160	BDL	152	84	68	102	11	0.31	BDL	0.04	BDL	BDL	41.5	14.3	1.45	ND	ND	0.14	ND	ND	ND	ND	ND	ND	1.61
40	Handpump near Pataldevi, Almora	20-10-2022	Clear	Odourfree	14	6.76	128	190	BDL	214	118	96	124	13	0.26	BDL	0.031	BDL	BDL	14.2	5.8	0.42	ND	ND	0.12	ND	ND	ND	ND	ND	ND	0.9
District - Nainital																																
41	Handpump at Ramnagar Town near Govt PG College, Ramnagar	20-10-2022	Clear	Odourfree	19	7.86	210	320	BDL	202	128	74	214	25	0.3	BDL	BDL	18.49	BDL	12.8	4.2	0.39	ND	ND	0.12	ND	ND	ND	ND	ND	ND	1.19
42	Handpump at Nainital Town near Sariyatal	20-10-2022	Clear	Odourfree	15	7.51	178	260	BDL	138	76	62	136	15	0.2	BDL	BDL	16.41	BDL	16.2	4.4	0.59	ND	ND	BDL	ND	ND	ND	ND	ND	ND	1.36
District - Bageshwar																																
43	Handpump near Kafiligair, Bageshwar	10-11-2022	Clear	Odourfree	14	8.16	135	210	BDL	188	120	68	166	25	0.22	BDL	BDL	28.33	BDL	12.1	11	0.38	ND	ND	0.033	ND	ND	BDL	0.95	ND	2.86	
44	Handpump near Roadways station, Bageshwar	10-11-2022	Clear	Odourfree	14	7.47	187	280	BDL	225	133	92	182	19	BDL	BDL	BDL	28.66	0.28	11.1	9.7	0.32	ND	ND	BDL	ND	ND	BDL	1.38	BDL	2.35	
District - Champawat																																
45	Handpump near Shivmandir, Champawat	11-11-2022	Clear	Odourfree	14	7.69	121	180	BDL	168	92	76	158	11	0.25	BDL	0.25	26.38	BDL	10.8	8.7	0.36	ND	ND	0.03	ND	ND	BDL	2.33	BDL	3.11	
46	Handpump near Gas Station Lohaghat, Champawat	11-11-2022	Clear	Odourfree	15	7.55	108	160	BDL	152	88	64	134	15	BDL	BDL	BDL	29.62	BDL	10.7	8.2	0.37	ND	ND	0.048	ND	ND	BDL	2.31	BDL	2.11	

Note- Abbreviations- N/A= Not Applicable ND= Not Detected
BDL= Below Detection Limit NR= No relaxation