

CLL Drinking Water Test Packages

Table A. Drinking Water Packages offered by CLL

CLL Test Package ID:		CLLDW01			CLLDW02	CLLDW03	CLLDW04	CLLDW06/7	CLLDW08	CLLDW09
		Drinking Water / Potable Water - Indian			Drinking Water - International			Bottled Water Specifications - Global		
SN.	Test Parameters	Comprehensive Scan (IS:10500)	Corporate Users (IS:10500)	Domestic Users (IS:10500)	WHO (3rd Edition)	EPA	EEC Directive (98/83/EC)	PDW / NMW (IS:14543) / (IS: 13428)	Bottled Water - USA (21 CFR 165.110)	Bottled Water - IBWA
A. Organoleptic										
1	Colour	√	√	√	√		√	√	√	
2	Odour	√	√	√		[√]	√	√	√	
3	pH value	√	√	√	√	[√]	√	√		√
4	Taste	√	√	√			√	√		
5	Total Dissolved Solids	√	√	√	√	[√]		√		
6	Total Suspended Solids								√	
7	Turbidity	√	√	√	√	√	√	√	√	√
B. General										
8	Alkalinity	√	√	√	√			√		
9	Ammonia (NH ₄)				√		√			
10	Anionic Surface Active Agents	√	√					√		
11	Calcium	√	√	√				√		
12	Chlorides	√	√	√	√	[√]	√	√	√	
13	Corrosivity					[√]				
14	Electrical Conductivity, EC						√			
15	Foaming Agents					[√]				
16	Mineral Oil	√	√	√				√		
17	Oxidisability						√			
18	Phenolic Compounds / Phenols	√	√	√				√	√	√
19	Residual Free Chlorine	√	√	√				√		
20	Sodium				√		√	√		
21	Sulphate	√	√	√	√	[√]	√	√	√	
22	Sulphide				√			√		
23	Total Hardness (CaCO ₃)	√	√	√	√					

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24	Total Organic Carbon				√		√			
C. Inorganic Chemicals										
25	Antimony, as Sb				√	√	√	√	√	
26	Arsenic, as As	√	√		√	√	√	√	√	√
27	Aluminum, as Al				√	[√]	√		√	
28	Asbestos					√ (N/A)				
29	Barium, as Ba				√	√		√	√	√
30	Beryllium, as Be					√			√	
31	Borate / Boron, as B	√	√		√			√		
32	Cadmium, as Cd	√	√		√	√	√	√	√	
33	Chromium, as Cr	√	√		√	√	√	√	√	√
34	Copper, as Cu	√	√		√	√	√	√	√	
35	Cyanide, as CN	√	√		√	√	√	√	√	
36	Fluoride, as F	√	√	√	√	√	√	√		
37	Iron, as Fe	√	√		√	[√]	√	√	√	
38	Lead, as Pb	√	√		√	√	√	√	√	√
39	Mercury, as Hg	√	√		√	√	√	√	√	√
40	Magnesium, as Mg	√	√	√				√		
41	Manganese, as Mn	√	√		√	[√]	√	√	√	
42	Molybdenum, as Mo				√					
43	Nickel, as Ni				√		√	√	√	√
44	Nitrate, as NO3	√	√	√	√	√	√	√	√	
45	Nitrite, as NO2				√	√	√	√	√	
46	Selenium, as Se	√	√		√	√	√	√	√	√
47	Silver, as Ag					[√]		√	√	√
48	Thallium, as Th					√			√	
49	Zinc, as Zn	√	√		√	[√]		√	√	
D. Microbiological										
50	Aerobic microbial plate count – 20 Deg C						√ (22 Deg C)	√		

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51	Aerobic microbial plate count – 37 Deg C						√	√		
52	<i>Clostridium perfringens</i> (including spores)						√			
53	Coliforms, Total	√	√		√	√	√	√	√	√
54	<i>Cryptosporidium</i>					√				
55	<i>E. coli</i>				√		√	√		√
56	Enterococci						√			
57	Faecal streptococci							√		
58	<i>Giardia lamblia</i>					√				
59	Heterotrophic plate count					√				
60	<i>Legionella</i>					√				
61	<i>Pseudomonas aeruginosa</i>						√	√		
62	<i>Salmonella spp.</i>							√		
63	<i>Shigella</i>							√		
64	<i>Staphylococcus aureus</i>							√		
65	Sulphite reducing anaerobes							√		
66	<i>Vibrio cholera</i>							√		
67	<i>Vibrio parahaemolyticus</i>							√		
68	Yeasts and Mould							√		
69	Viruses (enteric)					√ (N/A)				
E. Pesticide Residues & Organic Chemicals							See Note 1			
70	2,4-D				√	√		√	√	
71	2,4-DB				√					
72	2,4,5-T				√					
73	2,4,5-TP (Silvex)					√			√	√
74	Acrylamide				√	√	√			
75	Alachlor				√	√		√	√	

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76	Aldicarb (+Aldicarb Sulfoxide, +Aldicarb Sulfone)				√					√
77	Aldrin / Dieldrin				√			√		
78	Atrazine				√	√		√	√	
79	Benzene				√	√	√		√	√
80	Bentazone				√					
81	Benzenehexachloride, BHC (alpha, beta, gamma)							√		
82	Carbofuran				√	√			√	
83	Carbon tetrachloride				√	√			√	
84	Chlordane				√	√			√	
85	Chlorobenzene					√				
86	Chlorotoluron				√					
87	Chlorpyrifos				√					
88	Cyanazine				√					
89	Dalapon					√			√	
90	DDT (6 Isomers)				√					
91	DDE, o, p-							√		
92	DDD, o, p-							√		
93	DDT, o, p-							√		
94	DDE, p, p-							√		
95	DDD, p, p-							√		
96	DDT, p, p-							√		
97	1,2-Dibromo-3-chloropropane (DBCP)				√	√			√	
98	Dibromoethane, 1,2-				√					
99	Dichlorobenzene				√					
100	Dichlorobenzene, o-					√			√	
101	Dichlorobenzene, p-					√			√	
102	Dichloroethane, 1,2-				√	√	√		√	
103	Dichloroethene, 1,1-				√					

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104	Dichloroethene, 1,2-				√					
105	Dichloroethylene, 1,1-					√			√	√
106	Dichloroethylene, cis-1,2-					√			√	
107	Dichloroethylene, trans-1,2-					√			√	
108	Dichloromethane (Methylene Chloride), DCM				√	√			√	√
109	Dichloropropane, 1,2- (1,2-DCP)				√	√			√	
110	Dichloropropene, 1,3-				√	√				
111	Dichlorprop				√					
112	Di(2-ethylhexyl) adipate					√			√	
113	Di(2-ethylhexyl) phthalate					√				√
114	Dimethoate				√					
115	Dinoseb					√			√	
116	Diquat				√	√			√	
117	Edetic Acid (EDTA)				√					
118	Endothall					√			√	
119	Endosulfan (alpha, beta, sulphate)								√	
120	Endrin				√	√			√	
121	Epichlorohydrin				√	√	√			
122	Ethion							√		
123	Ethylbenzene				√	√			√	
124	Ethylene dibromide					√			√	
125	Fenoprop				√					
126	Glyphosate					√			√	
127	Heptachlor					√			√	
128	Heptachlor epoxide					√			√	
129	Hexachlorobenzene (see, BHC)				√	√			√	

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130	Hexachlorobutadiene				√					
131	Hexachlorocyclopentadiene					√			√	
132	Isoproturon				√			√		
133	Lindane (HCH)				√	√		√	√	
134	Malathion							√		
135	Malaaxon							√		
136	MCPA				√					
137	Mecoprop				√					
138	Methoxychlor				√	√			√	
139	Methyl parathion							√		
140	Methyl paraoxon							√		
141	Metolachlor				√					
142	Molinate				√					
143	Monochlorobenzene								√	
144	Monocrotophos							√		
145	Methyl tertiary butyl ether (MTBE)									√
146	Oxamyl (Vydate)					√			√	
147	Pendimethalin				√					
148	Permethrin				√					
149	Phorate (+Phorate sulphone, +Phorate sulphoxide)							√		
150	Picloram					√			√	
	Poly Aromatic Hydrocarbons (PAHs)									
151	PAH - Acenaphthene									
152	PAH - Acenaphthylene									
153	PAH - Anthracene									

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154	PAH - 1,2- Benzantracene									
155	PAH - Benzo(a)pyrene				√	√		√	√	
156	PAH - Benzo (B) Fluoranthene						√			
157	PAH - Benzo (G,H, I) Pyrene						√			
158	PAH - Benzo (K) Fluoranthene						√			
159	PAH - Chrysene									
160	PAH - Dibenz (A, H) Anthracene									
161	PAH - Fluoroanthene									
162	PAH - Fluorene									
163	PAH - Indeno(1,2,3-CD) Pyrene						√			
164	PAH - Napthalene									√
165	PAH - Phenanthrene									
166	PAH - Pyrene									
167	Polychlorinated Biphenyls (PCBs) - 21 Analytes					√			√	
168	Propanil				√					
169	Pyridate				√					
170	Pyriproxyfen				√					
171	Simazine				√	√			√	
172	Styrene				√	√			√	
173	TCDD, 2,3,7,8- (Dioxin)					√ (N/A)			√ (N/A)	
174	Terbutylazine				√					
175	Trifluralin				√					
176	Tetrachloroethane, 1,1,2,2-									√

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177	Tetrachloroethene				√		√			
178	Tetrachloroethylene					√			√	√
179	Toluene				√	√			√	
180	Trichlorobenzene, 1,2,4-					√			√	√
181	Trichloroethane, 1,1,1-					√			√	√
182	Trichloroethane, 1,1,2-					√			√	√
183	Trichloroethene						√			
184	Toxaphene					√			√	
185	Trichloroethylene					√			√	√
186	Vinyl chloride				√	√	√		√	
187	Xylenes (total of o-, m-, p-)				√	√			√	
F. Disinfectants & Disinfection Byproducts										
188	Bromate				√	√	√			
189	Chloramines (as Cl₂)					√				
190	Chlorine (as Cl₂)				√	√				√
191	Chlorine dioxide					√				
192	Chlorate				√					
193	Chlorite				√					
194	Monochloramine				√					
Chlorophenols										
195	2,4,6 Trichlorophenol				√					
196	Pentachlorophenol				√	√			√	
Haloacetic Acids										
197	Dichloroacetic acid				√	√				
198	Trichloroacetic acid				√	√				
199	Monochloroacetic acid					√				
200	Bromoacetic acid					√				
201	Dibromoacetic acid					√				

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202	Nitritotriacetic acid (NTA)				√					
	Total Trihalomethanes									
203	Trichloromethane								√	√
204	Dibromochloromethane				√	√	√		√	
205	Bromodichloromethane				√	√	√		√	
206	Tribromomethane								√	
207	Bromoform				√	√	√			
208	Chloroform				√	√	√			
209	Cyanogen chloride				√					
	Aldehydes									
210	Formaldehyde				√					
211	Chloralhydrate (trichloroacetaldehyde)				√					
	Halogenated Acetonitrile									
212	Dichloroacetonitrile				√					
213	Dibromoacetonitrile				√					
214	Trichloroacetonitrile				√					
	G. Radionuclides (See Note 2)									
215	Gross alpha particle activity						√ (O)			
216	Beta particle and photon activity						√ (O)			
217	Radium 226 and 228 (total)						√ (O)			
218	Total Indicative Dose							√ (O)		
219	Tritium							√ (O)		
220	Uranium				√ (O)	√ (O)				

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	H. Cyanobacterial Toxins									
221	<i>Microcystin-LR</i>				√					
Sample Quantity Required		12 Litres	2 Litres	1 Litre	20 Litres	20 Litres	15 Litres	15 Litres	15 Litres	10 Litres

Enquire separately for Japanese Environmental Quality Standards for the Human Health.

Notes:	
Note 1:	Pesticide residues in EEC Directive (CLLDW04) is a cumulative limit for various groups of pesticides. Since no specific list is provided, CLL provides a standard scan for these, which may change from time to time.
Note 2:	Tests for Radionuclides are outsourced and its rates are not included in the analytical charges listed above. Call for separate testing rates for Radionuclides
Note 3:	CLL may / maynot be able to provide the tests listed at any point of time due to unforeseeable conditions. The client will be informed in such a case. The above parameters, their methods and specifications may change, as and when, the regulatory or otherwise, changes take place.
[√]	These stand for optional parameters under EPA's National Secondary Drinking Water Regulations.
(O)	Outsourced Tests.
(N/A)	These tests are not available currently.
Abbreviations:	
CFR	Code for Federal Regulations, USA
EEC	European Economic Community Directives (applicable within European Union)
EPA	Environment Protection Agency, USA
IBWA	International Bottled Water Association
IS	Indian Standards by Bureau of Indian Standards
NPDW	The others represent National Primary Drinking Water Regulations
NMW	Natural Mineral Water (a category of standard on water by Bureau of Indian Standards (BIS))
PDW	Packaged Drinking Water (a category of standard on water by Bureau of Indian Standards (BIS))

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For Packaged Drinking Water, annual package with substantial benefits is available. Please contact our Environment Division at										
Sampling:										
a)	CLL provides Sampling for clients with annual contracts.									
	Sampling charges (within 50 kilometers of a CLL lab) are INR 250/- per visit.									
	Sampling charges (beyond 50 kilometers of a CLL lab) are on actuals for travel & stay (+INR 1000/- per manday).									
b)	Sterile bottles are available from CLL for clients at a nominal charge of INR 100/- per bottle.									
c)	Special care is required while sampling water for microbiological testing.									
	(i) Make sure that the container being used for sampling is sterile. Rinse with sample before using.									
	(ii) The sample should be filled upto the brim leaving very little air in the container.									
	(iii) The container (ideally a glass bottle or food grade PVC) should be air-tight.									
	(iv) If the bottle is to be transported long distance, please use ice-packs or cold dry-packs.									
Laboratory Setup:										
CLL also helps clients set up their own on-site laboratory and can provide training & calibration services, for water analysis - raw water or effluent (treated).										