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DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE

From
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To
The Principal,
PM Shri Kendriya Vidyalaya,
D.G.Q.A.,
Palavanthangal,
Chennai-600 061.

R.No.544 /C/2025 Misc –116 & 117 **Dated:** 19.03.2025.

Sir/Madam,

Sub: Report on examination of water samples - Regarding.
Ref: Your letter No.F.17044/KVDGQA/2024-25 Dated 20.02.2025.

Two samples of water stated to have been collected on 27.02.2025 by Thiru. Arokyadass from the following source/point located within the premises of PM Shri Kendriya Vidyalaya, D.G.Q.A., Palavanthangal, Chennai-61 were received at this laboratory on the same day from the addressee to assess their suitability for drinking purposes.

1. Water from the Tap (Source: Bore well) located near Ground (MISC 116)
2. Water from the RO plant outlet tap located at Ground Floor (MISC 117)

The Results of analysis are furnished over leaf.

1. Water from the Tap (Source: Bore well) located near Ground (Misc 116)

The above sample of water is Colourless and Clear in physical appearance.

Chemical analysis reveals that it is hard and considered to be acceptable chemical quality for drinking purposes.

However, it is of poor bacteriological quality as evidenced by the presence of Coliform group of organisms.

Microscopical Examination also reveals the presence of few zoo forms.

Hence the source of water needs disinfection before consumption.

RESULTS OF EXAMINATION OF SAMPLES OF WATER
From : The Principal, PM Shri Kendriya Vidyalaya, D.G.Q.A, Palavanthangal, Chennai -600 061.
Collected by : Thiru. Arokyadass

		M – 116	M- 117		
Date of Collection : 27.02.2025 Date of Receipt : 27.02.2025 Source as per label:		Water from the tap (Source: Bore well) located near Ground	Water from R.O plant outlet tap located at Block -I		Maximum permissible limit for drinking water as per BIS 10500/2012
Bacteriological Examination	Total colonies per ml on agar at 37°C	200	10		10
	MPN of Coliform bacteria per 100 ml.	460	0		0
	Nature of Coliform bacteria isolated	Klebsiella aerogens ii			absent
	Rapid Test for Ecoli				
Physical Examination	Colour	Colourless	Colourless		Colourless
	Turbidity (Units)	5	5		5
	Smell	None	None		None
Chemical Examination (in mg/1).	Total dissolved Solids	670	640		2000
	Carbonate hardness as $CaCo_3$	252	252		-
	Non- Carbonate hardness as $CaCo_3$	0	0		-
	Total hardness as $CaCo_3$	252	252		600
	Chloride as Chlorine	56	50		1000
	Ammoniacal nitrogen	-	-		Nil
	Albuminoid nitrogen	-	-		Nil
	Oxygen absorbed (Tidy's test)	0.80	0.56		-
	Nitrate-nitrogen	1.0	1.0		10.2
	Alkalinity as $CaCO_3$ — Phenolphthalein	0	0		-
	Alkalinity as $CaCO_3$ — Methyl Orange	272	268		600
	Fluoride as Fluorine	0.2	0.2		1.5
	PH.	7.1	7.6		6.5-8.5
	Iron as Fe Total	0.1	0.05		1.0
	Ferrous	Nil	Nil		--
	Manganese as Mn.	Nil	Nil		0.3
	Qualitative-				
	Nitrite nitrogen	Trace	Trace		Trace
	Sulphate	Trace	Trace		400
	Phosphate	Trace	Trace		Trace
	Toxic substances				
	Electrical conductivity (Reciprocal megohms per Cm^3 at 20°C)	950	920		-
Microscopical Examination		Monas & Amorphous Matter	Amorphous Matter		

Method of Disinfection:

The disinfection is usually carried out by the chlorination of the Bore well water at the storage units (OHT/ Sump) by using 4 gms of BIS grade bleaching powder containing 32 to 34 % of chlorine content or 20 ml of 4 to 6 % sodium hypochlorite solution for every 1000 litres of water with half an hour contact time before distribution.

The Storage units should be cleaned with strong bleaching powder solution periodically atleast once in a month to ensure hygienic safety of storage units.

2. Water from RO plant outlet tap located at Block -I (MISC110)

The above sample of RO water is colourless and clear in physical appearance.

Chemical analysis reveals that it is hard and considered to be acceptable chemical quality for drinking purposes.

It is of satisfactory biological and bacteriological quality for drinking purposes on this occasion.

Further from the analysis at this laboratory, it is inferred that the RO filters is not functioning properly since the Bore well and RO Unit has similar chemical quality and there is no reduction of hardness in the Outlet tap of RO System.

Hence it is advised to set right the RO system which may be dealt at your end.

கி.புனிதவல்லி
24.3.2025

Copy to: Lab & File

for CHIEF WATER ANALYST,
Chief Water Analysis Laboratory,
Guindy, Chennai – 32.

24/3/25