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**DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE**

20 SEP 2023

R.No.1970/C/2023 (TNR/1140 to 1147), Dated: 19.07.2023

From

**Tmt. L.Sujatha, M.Sc., M.A., B.Ed.,**  
CHIEF WATER ANALYST,  
Chief Water Analysis Laboratory,  
King Institute Campus, Guindy,  
Chennai – 600 032.

To

The Commissioner,  
Ambur Municipality,  
Ambur,  
Thirupathur District.

Sir,

Subject: Report on examination of Water samples from The Ambur Municipality, Thirupathur District - Collected on 05.06.2023 and 06.06.2023.

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Ambur Municipality in Thirupathur District derives its drinking water supply from Hokenakkal CWSS (Cauvery river) scheme water.

**Water Supply:**

The Cauvery composite water supply scheme water from Hokenakkal is received in GLR at Samiyar Madam (32.75 lakhs litres capacity) and then pumped into the following 12 OHTs.

The details are as follows.

S.No.	OHTs	Capacity in litres
1.	Kambikollai OHT	2,50,000
2.	Kareem Nagar OHT	20,00,000
3.	K.M. Nagar OHT	7,00,000
4.	“B” Kaspas OHT	3,00,000
5.	Alagapuri OHT	10,00,000
6.	Reddi Thoppu OHT	2,00,000
7.	Bethlahem OHT	7,50,000
8.	“A” Kaspas OHT	4,00,000
9.	Sanan Kuppam OHT	2,00,000
10.	Pavadithoppu OHT	7.50,000
11.	Rafiq Nagar OHT	5,00,000
12.	New Street OHT	5,00,000

# RESULTS OF EXAMINATION OF SAMPLES OF WATER

From: The Ambur Municipality, Thirupathur District.

Collected by: Thiru.S.A.Syed Altaf, H.I. Gr.I

		TNR- 1140	TNR-1141			
Date of Collection : 5.6.2023 & 6.6.2023		CWSS water from GLR at Samiyar Madam	1 <sup>st</sup> tap after Samiyar Madam OHT	Tap in Gangai amman koil street	Tap in Perumal koil street	Tap in O.V. Road
Date of Receipt : 07.06.2023						
Source as per label						
Bacteriological Examination	Total colonies per ml on agar at 37°C	80				
	MPN of Coliform bacteria per 100 ml.	210	0	0	0	0
	Rapid Test for E.Coli-I	Positive				
	Results of vibrio test					
Physical Examination	Colour	Colourless	Colourless			
	Turbidity (Units)	5	5			
	Smell	None	Chlorinous (2 ppm)			
Chemical Examination (in mg/l).	Total Solids	430	460			
	Carbonate hardness as CaCO <sub>3</sub>	156				
	Non- Carbonate hardness as CaCO <sub>3</sub>	0				
	Total hardness as CaCO <sub>3</sub>	156				
	Chloride as Chlorine	44	44			
	Ammoniacal nitrogen	-				
	Albuminoid nitrogen	-				
	Oxygen absorbed (Tidy's test)	0.64	0.0			
Chemical Examination (in mg/l).	Nitrate-nitrogen	1.0				
	Acidity } Phenolphthalein as CaCO <sub>3</sub> } Methyl Orange	0				
		188				
	Fluoride as Fluorine	0.6				
	PH.	7.8	7.8			
	Iron as Fe Total	0.1				
		Ferrous				
	Manganese as Mn.					
	Qualitative- Nitrite nitrogen	Trace	Nil			
	Sulphate	Trace				
	Phosphate	Trace				
	Toxic substances					
	Electrical conductivity (Reciprocal megohms/Cm <sup>3</sup> at 25°C)	620	650			
Microscopical Examination	Monas& Amorphou matter	Amorphous matter				

Available Chlorine in given Sodium Hypo Chlorite solution is 5.4% by Mass

From the above OHTs (12 numbers), the water is supplied to the Public through Public fountains and House service connections after chlorination for drinking purpose.

It was stated that, the water supply is being maintained once in 3 days by adopting zonal system.

Twenty nine samples of water for Bacteriological analysis and eight samples of water for chemical and biological analysis were collected on 05.06.2023 and 06.06.2023 in connection with the periodical monitoring of drinking water quality.

The results of analysis are furnished overleaf.

**1. CWSS water (Source: Cauvery river water) from GLR in Samiyar Madam (TNR/1140):**

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

Chemical analysis reveals that, it is satisfactory of chemical quality for drinking purpose.

But, it is of poor bacteriological quality as evidenced by the presence of E-coli-I organisms of faecal origin. Hence, this water need disinfection before distribution to the Public.

It also shows few microscopical organisms.

**2. Water from Ist tap after Samiyar madam OHT (TNR/1141):**

**3. Water from Ist tap after K.M.Nagar OHT (TNR/1142):**

**4. Water from Ist tap after Kareem Nagar OHT (TNR/1143):**

**5. Water from Ist tap after "B" Kaspas OHT (TNR/1144):**

**6. Water from Ist tap after "A" Kaspas OHT (TNR/1145):**

**7. Water from Ist tap after Alagapurai OHT (TNR/1146):**

**8. Water from Ist tap after Bethlahem OHT (TNR/1147):**

The above seven samples of water are colourless and clear in physical appearance with chlorinous odour (RC: between 0.2 ppm and 2.0 ppm).

Judged by the results of analysis, they are satisfactory of chemical, bacteriological and biological quality for drinking purpose on this occasion.

The water samples collected from all the distribution tap points are of satisfactory hygienic quality on this occasion.

The sample of Sodium Hypo Chlorite solution collected from the stock contains **5.4%** of available chlorine content. It is **Satisfactory** quality for water disinfection purpose. However, the stock should be preserved in airtight container and in dark place to prevent depletion of its available chlorine content.

# RESULTS OF EXAMINATION OF SAMPLES OF WATER

From: The Ambur Municipality, Thirupathur District.

Collected by: Thiru. S.A.Syed Altaf, H.I. Gr.I

		TNR- 1142				TNR-1143
Date of Collection : 5.6.2023 & 6.6.2023						
Date of Receipt : 07.06.2023		1 <sup>st</sup> tap after K.M. Nagar	Tap at Ashabee Nagar	Tap at Maruththuvar Nagar	Tap at Anees Manai	1 <sup>st</sup> tap at Kaveem Nagar
Source as per label						
Bacteriological Examination	Total colonies per ml on agar at 37°C					
	MPN of Coliform bacteria per 100 ml.	0	0	0	0	0
	Rapid Test for E.Coli-I					
	Results of vibrio test					
Physical Examination	Colour	Colourless				Colourless
	Turbidity (Units)	5				5
	Smell	Chlorinous (2 ppm)				Chlorinous (2 ppm)
Chemical Examination (in mg/l).	Total Solids	460				460
	Carbonate hardness as CaCO <sub>3</sub>					
	Non- Carbonate hardness as CaCO <sub>3</sub>					
	Total hardness as CaCO <sub>3</sub>					
	Chloride as Chlorine	44				44
	Ammoniacal nitrogen					
	Albuminoid nitrogen					
	Oxygen absorbed (Tidy's test)	0.0				0.0
	Nitrate-nitrogen					
	Acidity } Phenolphthalein as CaCO <sub>3</sub> } Methyl Orange					
	Fluoride as Fluorine					
	PH.	7.9				7.8
	Iron as Fe Total	0.05				0.05
	Ferrous					
	Manganese as Mn.					
	Qualitative- Nitrite nitrogen	Nil				Nil
	Sulphate					
	Phosphate					
	Toxic substances					
	Electrical conductivity (Reciprocal megohms/Cm <sup>3</sup> at 25°C)	650				650
Microscopical Examination		Amorphous matter				Amorphous matter

**The following suggestions are offered for immediate implementation to ensure hygienic safety of drinking water supply:**

1. Unwanted vegetation noticed in the premises of OHTs at K.M. Nagar, 'B' Kaspa, and Kareem Nagar should be removed immediately and their surroundings should be kept clean and tidy as per sanitary specifications.
2. All the Sumps and OHTs should be scrubbed and cleaned with strong solution of BIS grade bleaching powder periodically so as to ensure hygienic safety of storage units.
3. A separate stock register showing the particulars of procurement of bleaching powder, stock on hand, daily usage for chlorination, date of cleaning of OHT, scouring of pipelines etc., should be maintained for the perusal of inspecting authorities.

*for* *Q. ymm* *12/9/2023*  
**CHIEF WATER ANALYST,  
Chief Water Analysis Laboratory,  
Guindy, Chennai – 32.**

*for* *12/9/23* *2nd* *12/9/23*

Copy submitted to: The Director of Public Health and Preventive Medicine,  
Anna Salai, Chennai – 6.  
The Joint Director of Public Health and Preventive Medicine,  
Anna Salai, Chennai – 6. (C.D.)  
The Commissioner of Municipal Administration,  
No.75, Santhome High Road, MRC Nagar, Chennai – 28.

Copy to: The Deputy Director of Health Services, Ambur District.  
The Municipal Engineer, Ambur Municipality,  
Thirupathur District.  
The Lab and File.

# RESULTS OF EXAMINATION OF SAMPLES OF WATER

From: The Ambur Municipality, Thirupathur District.

Collected by: Thiru. S.A.Syed Altaf, H.I. Gr.I

TNR- 1144

Date of Collection : 5.6.2023 & 6.6.2023		Tap at Banagara 1 <sup>st</sup> street	Tap at Banagara 5 <sup>th</sup> street	Tap in Baby Colony	1 <sup>st</sup> tap after 'B' Kaspa OHT	Tap at Anjenayar koil street
Date of Receipt : 07.06.2023						
Source as per label						
Bacteriological Examination	Total colonies per ml on agar at 37°C					
	MPN of Coliform bacteria per 100 ml.	0	0	0	0	0
	Rapid Test for E.Coli-I					
	Results of vibrio test					
Physical Examination	Colour				Colourless	
	Turbidity (Units)				5	
	Smell				Slightly Chlorinous (0.2 ppm)	
Chemical Examination (in mg/l).	Total Solids				460	
	Carbonate hardness as CaCO <sub>3</sub>					
	Non- Carbonate hardness as CaCO <sub>3</sub>					
	Total hardness as CaCO <sub>3</sub>					
	Chloride as Chlorine				42	
	Ammoniacal nitrogen					
	Albuminoid nitrogen					
Chemical Examination (in mg/l).	Oxygen absorbed (Tidy's test)				0.0	
	Nitrate-nitrogen					
	Acidity as CaCO <sub>3</sub>	} Phenolphthalein Methyl Orange				
	Fluoride as Fluorine					
	PH.				7.7	
	Iron as Fe Total				0.05	
	Ferrous					
	Manganese as Mn.					
	Qualitative- Nitrite nitrogen				Nil	
	Sulphate					
	Phosphate					
	Toxic substances					
	Electrical conductivity (Reciprocal megohms/Cm <sup>3</sup> at 25°C)				650	

Microscopical Examination

Amorphous matter

# RESULTS OF EXAMINATION OF SAMPLES OF WATER

From: The Ambur Municipality, Thirupathur District.

Collected by: Thiru. S.A.Syed Altaf, H.I. Gr.I

TNR-1145

Date of Collection : 5.6.2023 & 6.6.2023		Tap at Mukkiy amman koil street	Tap at Periya koil street	Tap at 'A' Kaspas	Tap at Chinna Kammara Veethi	Tap at Baswaswappa koil street
Date of Receipt : 07.06.2023						
Source as per label						
Bacteriological Examination	Total colonies per ml on agar at 37°C					
	MPN of Coliform bacteria per 100 ml.	0	0	0	0	0
	Rapid Test for E.Coli-I					
	Results of vibrio test					
Physical Examination	Colour			Colourless		
	Turbidity (Units)			5		
	Smell			Slightly Chlorinous (0.2 ppm)		
Chemical Examination (in mg/l).	Total Solids			460		
	Carbonate hardness as CaCO <sub>3</sub>					
	Non- Carbonate hardness as CaCO <sub>3</sub>					
	Total hardness as CaCO <sub>3</sub>					
	Chloride as Chlorine			42		
	Ammoniacal nitrogen					
	Albuminoid nitrogen					
	Oxygen absorbed (Tidy's test)			0.0		
	Nitrate-nitrogen					
	Acidity as CaCO <sub>3</sub>	} Phenolphthalein } Methyl Orange				
	Fluoride as Fluorine					
	PH.			7.8		
	Iron as Fe Total			0.05		
	Ferrous					
	Manganese as Mn.					
	Qualitative- Nitrite nitrogen			Nil		
	Sulphate					
	Phosphate					
	Toxic substances					
Electrical conductivity (Reciprocal megohms/Cm <sup>3</sup> at 25°C)			650			

Microscopical Examination

Amorphous matter

# RESULTS OF EXAMINATION OF SAMPLES OF WATER

From: The Ambur Municipality, Thirupathur District.

Collected by: Thiru. S.A.Syed Altaf, H.I. Gr.I

TNR-1146

Date of Collection : 5.6.2023 & 6.6.2023		Tap at Nesavukkara street	1 <sup>st</sup> tap after Alagapuri OHT	Tap at Mariyamman koil street	Tap at Annai Mery street	Tap at Indira street
Date of Receipt : 07.06.2023						
Source as per label						
Bacteriological Examination	Total colonies per ml on agar at 37°C					
	MPN of Coliform bacteria per 100 ml.	0	0	0	0	0
	Rapid Test for E.Coli-I					
	Results of vibrio test					
Physical Examination	Colour		Colourless			
	Turbidity (Units)		5			
	Smell		Slightly Chlorinous (0.2 ppm)			
Chemical Examination (in mg/l).	Total Solids		460			
	Carbonate hardness as CaCO <sub>3</sub>					
	Non- Carbonate hardness as CaCO <sub>3</sub>					
	Total hardness as CaCO <sub>3</sub>					
	Chloride as Chlorine		42			
	Ammoniacal nitrogen					
	Albuminoid nitrogen					
	Oxygen absorbed (Tidy's test)		0.0			
	Nitrate-nitrogen					
	Acidity } Phenolphthalein as CaCO <sub>3</sub> } Methyl Orange					
	Fluoride as Fluorine					
	PH.		7.8			
	Iron as Fe Total		0.05			
	Ferrous					
	Manganese as Mn.					
	Qualitative- Nitrite nitrogen		Nil			
	Sulphate					
	Phosphate					
	Toxic substances					
	Electrical conductivity (Reciprocal megohms/Cm <sup>3</sup> at 25°C)		650			
Microscopical Examination		Amorphous matter				



# RESULTS OF EXAMINATION OF SAMPLES OF WATER

From: The Ambur Municipality, Thirupathur District.

Collected by: Thiru. S.A.Syed Altaf, H.I. Gr.I

		TNR- 1147					
Date of Collection : 5.6.2023 & 6.6.2023							
Date of Receipt : 07.06.2023							
Source as per label		1 <sup>st</sup> tap after Bethlahem OHT	Tap at Jalal Garden 1 <sup>st</sup> street	Tap at Asnampet road	Tap at Vadakku Veethi	Maximum permissible limit for drinking water as per BIS 10500/2012	
Bacteriological Examination	Total colonies per ml on agar at 37°C					20	
	MPN of Coliform bacteria per 100 ml.	0	0	0	0	0	
	Rapid Test for E.Coli-I					absent	
	Results of vibrio test						
Physical Examination	Colour	Colourless				Colourless	
	Turbidity (Units)	5				5	
	Smell	Slightly Chlorinous (0.2 ppm)				None	
Chemical Examination (in mg/l).	Total Solids	460				2000	
	Carbonate hardness as CaCO <sub>3</sub>					-	
	Non- Carbonate hardness as CaCO <sub>3</sub>					-	
	Total hardness as CaCO <sub>3</sub>					600	
	Chloride as Chlorine	42				1000	
	Ammoniacal nitrogen					Nil	
	Albuminoid nitrogen					Nil	
	Oxygen absorbed (Tidy's test)	0.0				1.0	
	Nitrate-nitrogen					10.2	
	Acidity as CaCO <sub>3</sub>	} Phenolphthalein					-
			} Methyl Orange				600
	Fluoride as Fluorine						1.5
	PH.	7.8					6.5-8.5
	Iron as Fe Total	Ferrous	0.05				1.0
							Nil
	Manganese as Mn.						0.3
	Qualitative- Nitrite nitrogen	Nil					Trace
	Sulphate						Present
	Phosphate						Trace
	Toxic substances						
Electrical conductivity (Reciprocal megohms/Cm <sup>3</sup> at 25°C)	650					-	
Microscopical Examination	Amorphous matter						