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Drinking Water Quality Guidelines

- The role of WHO in the development of DWQG
- The role of MWRI/UNICEF
- The importance of DWQG in Southern Sudan



Directorate of Rural Water Supply and Sanitation



Government of Southern Sudan
Ministry of Water Resources and Irrigation. GoSS-Juba.

WATER QUALITY MONITORING REPORT FORM

Source Location		Longitude:	
Village		Latitude:	
County		Date of sampling	
State		Date of analysis	
LOCATION DESCRIPTION (rural, urban, dense settlement, agricultural areas, mining area etc.)			
Type of monitoring (Tick one): <i>*See Footnote 1</i>	Initial monitoring for a new water source	Routine monitoring for existing water source	
SOURCE TYPE (tick as applicable)	√	√	
Yard tap		Unprotected spring	
Public standpipe		Rainwater collection	
Borehole/Hand-pump		Water tanker/truck	

Footnote 1:

Complete information and all water tests required for initial monitoring of new water sources

§ = Testing is compulsory for routine monitoring of existing water sources

¥ = Testing is recommended for routine monitoring of existing water sources

AESTHETIC QUALITY/PHYSICAL PARAMETERS.		Sudan Max Permissible Limit (mg/l)
Appearance		Clear
§ pH		6.5 - 8.5
¥ TDS (mg/l)		≤1000
§ Electrical Conductivity (mS/m)		≤ 1500
CHEMICAL PARAMETERS (mg/l)		
¥ Arsenic		≤0.05
§ Chlorine (Residual)–For treated water		0.2-0.6
Copper ¹		1.5
§ Chlorine (Residual)–For treated water		0.2-0.6
MICROBIOLOGICAL PARAMETERS (mg/l)		
¥ Total Coliforms (counts/100ml)		<50
§ Faecal coliforms (counts/100ml)		<10
Guinea worm larvae ²		0
Vibrio cholerae ³		0

Footnote 2:

1 To be tested at point of use where the pH is lower than 6

2 To be tested in endemic areas only

3 To be tested during outbreaks/epidemics only

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Parameters to consider when assessing DWQ from different water sources.

SUBSTANCE	SOURCE			TREATMENT	POINT OF USE
	River, well, stream, spring	Dam	Borehole	FACILITY	
GROUP A					
pH	●●●●	●●●●	●●●●	●●●●	●●●●
Electrical Conductivity	●●●●	●●●●	●●●●	●●●●	●●●●
Turbidity	●●●●	●●●●	●●●●	●●●●	●●●●
Feacal coliforms	●●●●	●●●●	●●●●	●●●●	●●●●
Residual chlorine	NA	NA	NA	●●●●	●●●●
GROUP B					
Arsenic	●●	●●	●●	●●	●●
Fluoride	●	●	●●●●	●●●●	●●●●
Nitrate	●	●	●●●●	●●	●●
GROUP C					
Copper	●	●	●	●	●

●●●● = Must be assessed.

● = Useful, for provision of more information

●● = Important to include. Area specific.

NA = Not applicable

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Parameters for routine analysis

Physical	Chemical	Bacteriological
Taste	§ Residual Chlorine (For treated water)	§ Faecal coliforms
Odour	§ Arsenic	¥ Total coliforms
Colour	¥ Chloride	
§ Turbidity	§ Fluoride	
§ pH	¥ Iron	
¥ TDS	§ Nitrate	
§ Conductivity		

§ = Testing is **compulsory** for routine monitoring of existing water sources

¥ = Testing is **recommended** for routine monitoring of existing water sources