



MOHAMMED & ASSOCIATES ENGINEERING SERVICES LTD is an engineering company in Cameroon with offices in Bamenda and Yaoundé, Cameroon. M&A Engineering LTD specialises in:

- Drinking water testing for bacteria, heavy metals and harmful compounds as on the following table.
- Design and development of websites for Cameroonian businesses.
- Engineering Design and Assessments for clients, product prototyping and testing services.
- Installation of home and facility security systems including cameras, motion sensors and alarms to deter intruders.

For more information about our services, please visit our website at www.mohammedandassociates.com

Item #	Test Parameter	Lead Time	Health Effects of Out of Standard Levels	Fees		Comments
				High Accuracy Results	Estimate Results	
1	pH	10 mins	Highly acidic water has a sour and metallic taste. Highly Alkaline water has a soapy bitter taste. Both are undrinkable	Free	Free	
2	Bacteria	3 days	Numerous bacterial infections like diarrhea, typhoid, stomach cramps, vomiting, and fever.	Unavailable	20,000 FCFA	Determines the presence of harmful bacteria using E-coli as the test parameter.
3	Free Chlorine	1 day	Eye/nose irritation, stomach discomfort. Can cause increased risk of cancer, liver, kidney or central nervous system issues.	10,000 FCFA	5,000 FCFA	Adequate levels of free chlorine are required in drinking water to prevent bacterial growth.

4	Total Chlorine	1 day	Can cause increased risk of cancer, liver, kidney or central nervous system issues.	10,000 FCFA	5,000 FCFA	The levels of Total Chlorine help in determining the chlorine dose to add to the water in order to maintain adequate residual free chlorine for disinfection.
5	Disinfection Ammounts Calculations	1 day	N/A	50,000 FCFA		Results of this calculation will provide estimates on the adequate ammounts of chlorine/bleach and how often to add to the water to properly disinfect it.
6	Nitrates	1 day	Infants below the age of six months who drink water containing nitrates in excess could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. High Nitrate levels also promote the growth of bacteria in the water	11,000 FCFA	5,000 FCFA	
7	Phosphates	1 day	High phosphate levels promote the growth of bacteria in the water, hyperphoshatemia, diarrhea, tissue/organ hardening and issues with Vitamin D absorption	11,000 FCFA	Unavailable	

8	Lead		Health effects for exposure to high lead concentrations include: increased blood pressure, kidney damage, anemia, digestive problems, nerve disorders, memory loss, muscle and joint pain, fatigue, irritability, headaches	Unavailable	5,000 FCFA	
9	Iron	1 day	A bitter metallic taste, staining of pipes and buckets, and gastrointestinal issues.	10,000 FCFA	5,000 FCFA	
10	Manganese	1 day	Excessive manganese in drinking water can lead to neurological and behavioral problems, particularly in infants and young children, including deficits in memory, attention, and motor skills	Unavailable	5,000 FCFA	
11	Copper	1 day	While copper is an essential nutrient, excessive amounts in drinking water can cause health problems. Short-term exposure to high levels can lead to gastrointestinal issues like nausea, vomiting, and diarrhea.	Unavailable	5,000 FCFA	
12	Zinc	1 day	A metallic taste, stomach cramps, nausea, vomiting, and potentially long-term effects like anemia and reduced copper absorption	Unavailable	5,000 FCFA	

13	Total Alkalinity	1 day	High alkalinity in water can lead to scaling and deposits on plumbing and appliances, potentially damaging them and reducing their efficiency. It can also cause cloudy water and an unpleasant taste or odor	Unavailable	5,000 FCFA	
14	Hardness	1 day	While generally not a significant health risk, hard water can cause some skin and hair issues, and may contribute to digestive problems for some individuals	Unavailable	5,000 FCFA	
15	Hydrogen Sulfide	1 day	It can cause a rotten egg odor and unpleasant taste. Much higher concentrations can lead to nausea, vomiting, and irritation of the eyes and respiratory tract.	Unavailable	5,000 FCFA	
16	Nitrites	1 day	High Nitrite concentrations can cause hemoglobin in blood to change to methemoglobin which reduces the amount of oxygen that can be carried in the blood. Nitrites also stimulate bacteria and algal blooms.	Unavailable	5,000 FCFA	

17	Sulfates	1 day	High concentrations of sulfates in drinking water can lead to digestive issues like diarrhea and dehydration. Sulfates also stimulate bacteria and algal blooms	Unavailable	5,000 FCFA	
18	Fluoride	1 day	High levels of fluoride in drinking water can lead to dental and skeletal fluorosis	Unavailable	5,000 FCFA	
19	Sodium Chloride	1 day	Salty water taste. High amounts of sodium chloride (salt) in drinking water can lead to increased blood pressure, which can contribute to heart disease and stroke.	Unavailable	5,000 FCFA	



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