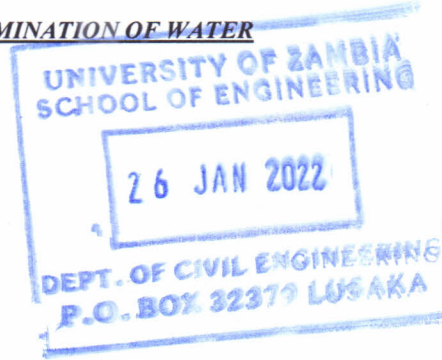




PHYSICAL/CHEMICAL EXAMINATION OF WATER

Attn : Jomachis Investment Ltd  
Lusaka

Sampled by : EEL  
Receipt date : 19.01.2022  
Report date : 26.01.2022



**Objective:** Performance of Sydney 905 Filter/Purifier

**Experiment:**

Water with high turbidity, suspended solids and contaminated with bacteria was filtered using Sydney 905 Filter/Purifier. Both contaminated and filtered water were tested for physical, chemical and microbiology (See laboratory results below)

**Laboratory Results**

Parameter	Contaminated Water Raw Water	Filtered Contaminated Water Using Sydney905 Filter/Purifier	ZABS Guideline (Maximum Permissible value for drinking water)
pH	7.50	7.50	6.5- 8.0
Turbidity (NTU)	140.2	0.64	5.0
Conductivity (µs/cm)	788	762	1,500
Total Dissolved Solids (mg/l)	394	385	1,000
Total Suspended Solids (mg/l)	54.0	<1.0	-
Total hardness (as mg CaCO <sub>3</sub> /l)	312	302	500
Calcium hardness (as mg CaCO <sub>3</sub> /l)	288	284	500
Alkalinity (as mg CaCO <sub>3</sub> /l)	300	296	500
Iron (mg/l)	1.24	<0.01	0.30
Ammonia (as NH <sub>4</sub> -Nmg/l)	<0.01	<0.01	1.50
Sulphates (mg/l)	33.40	32.30	400
Chlorides (mg/l)	120.0	116.0	250
Nitrites (as NO <sub>2</sub> -N mg/l)	0.009	<0.001	1.0
Nitrates (as NO <sub>3</sub> -N mg/l)	3.30	2.60	10.0
Acidity (as mg CaCO <sub>3</sub> /l)	Nil	Nil	500
Total phosphates (mg/l)	<0.01	<0.01	5.0
Magnesium (mg/l)	5.76	4.32	150
Calcium (mg/l)	115.2	113.5	200
Fluorides (mg/l)	0.19	0.18	1.50
Potassium (mg/l)	26.14	24.40	-
Sodium (mg/l)	79.2	76.56	200
Manganese (mg/l)	<0.01	<0.01	0.1
<b>Bacteriological Results</b>			
Total coliforms (#/100ml)	200	0	0
E.coli (#/100ml)	66	0	0
Feecal coliforms (#/100ml)	140	0	0

## Observations:

1. The turbidity of the water was reduced after filtering using Sydney 905 Filter/Purifier.
2. Suspended solids were removed from the water after filtering using Sydney 905 Filter/Purifier.
3. Iron was removed from the water after filtering using Sydney 905 Filter/Purifier.
4. Bacteria was removed from the water after filtering using Sydney 905 Filter/Purifier.
5. Mineral content of the water was maintained after filtering using Sydney 905.

## Recommendations/Conclusions:

Sydney 905 Filter/Purifier provides safe drinking water free from suspended solids and bacteria.

Tested by: E. Mutati .....  
Lab. Technician

Checked & Approved by: Joshua Liyungu .....  
Lab. Manager /Co-ordinator

