

Water, Sewage & Industrial Effluent Testing Laboratory

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Ilembe District Municipality
Blythedale
Reticulation Bacteriological Sample

L/PR/ROUTINE/2014 20-05-2014

21-05-2014

EMAIL: GROUP DETAILS

Attention: Mr. H N Maphumulo

Dear Sir

PRELIMINARY BACTERIOLOGICAL RESULTS

Find to follow the results for the bacteriological sample collected on 20-05-2014 that does not comply with the bacteriological requirements as per SANS-241-2011.

SAMPLE NAME	TEST PERFORMED				
	Method No (P09/103) Total Plate Count / 1ml	Method No (P09/102) Total Coliform Bacteria / 100 ml	Method No (P09/046) Faecal Coliform Bacteria / 100ml	Method No (P09/046) E Coli Type 1 Bacteria / 100 ml	Method No (P09/023) Free residual Chlorine mg/l
Final Water Tap 1 (B1)	In progress	7	6	6	0.04
SANS 241-1:2011 Microbiological Determinands					
	1	2	3	4	5
1 Determinand	Total Plate Count	Total Coliform Bacteria	Faecal Coliform Bacteria (a)	E.coli Type 1 Bacteria (b)	Free Residual Chlorine
2 Risk	Operational	Operational	Acute health -1	Acute health -1	Chronic health
3 Units	cfu/1ml	cfu/100ml	cfu/100ml	cfu/100ml	mg/l
4 Standard Limit	≤1000	≤10	Not detected	Not detected	≤5

a = Indicator of unacceptable microbial water quality, could be tested instead of *E.coli*, but is not the preferred Indicator of faecal pollution. Also provides information on treatment efficiency and aftergrowth in distribution Networks.

b = Definitive, preferred indicator of faecal pollution.

Laboratory Comment

The current chlorine concentration is low which indicates inadequate disinfection. The residual chlorine concentration should be increased urgently in the reticulation system to ensure proper disinfection. The presence of faecal coliforms & *E.coli* bacteria pose a health hazard if consumed as these are disease causing bacteria of faecal origin. The water should be boiled prior to consumption. A resample of the water should be analyzed to confirm corrective actions. Please instruct laboratory ASAP.



Dawn Bester
B.N.Kirk (Natal) cc
Laboratory Manager



Lisa Govender
Microbiologist