



(PTY) LTD 2018/379064/07
REGEN WATERS
 LABORATORY • LABORATORIUM

4 Woltemade Street
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 WITBANK 1035
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**MICROBIOLOGICAL ANALYSIS
 TEST REPORT**

Sample From: Nkangala District Municipality Municipal Health Services
 Emakhazeni Town Council

Address: Posbus 437
 Walter Sisulu
 Middelburg
 1050

Date Received: 14 May 2019
 Date Analyzed: 14 May 2019
 Date Reported: 16 May 2019
 Quantity Analyzed: 23

Attention: Marianne Joubert
 Solly Links
 E-Mail : marianne.joubert2011@gmail.com
 Ref No: E 673 - 695 / 19 B

LAB REF ID	LAB NUMBER	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10 TOTAL COLIFORM BACTERIA PER / 100ML	Nil FAECAL COLIFORM PER / 100 ML	Nil ESCHERISCHIA COLIFORM PER 100 ML	≤ 1000 HETEROTROPHIC PLATE COUNT PER 1.0 ML	
		BELFAST	YES	NO		A / B			
D	E 673	NBF1/5/19: Belfast Waterworks Inlet	X		>2420	B	Nil	Nil	1670
D	E 674	NBF3/5/19: Belfast Waterworks Final	X		Nil	B	Nil	Nil	13
S	E 675	NBF8/5/19: Belfast Sewerworks Final	X		-	B	>1000	-	-
D	E 676	NBF10/5/19: Siyathuthuka Clinic	X		1	B	-	Nil	16
D	E 677	NBF11/5/19: Leratong Creche'	X		Nil	B	-	Nil	20
D	E 678	NBF12/5/19: Siyathuthuka Community Hall	X		Nil	B	-	Nil	21
D	E 679	NBF13/5/19: HA Grove Hospital	X		>200	B	-	Nil	141
METHOD USED					A- SANAS 5221 (CFU) OR B - COLILERT (MPN)	SANS 5221 (CFU)	COLILERT (MPN)	SANS 5221 (CFU)	
					REGEN WATERS METHOD: MLPM 4A AND 4B.				

S.A.N.S. 241:2015 MICROBIOLOGICAL REQUIREMENTS
 Allowable compliance for **DRINKING WATER**

Determinant	Risk	Unit	Standard limits
Escherichia Coliform / or Faecal Coliform bacteria	Acute Health - 1	Count per 100 ml	Not Detected
Heterotrophic Plate Count	Operational	Count per 1 ml	≤ 1 000
Total Coliform Bacteria	Operational	Count per 100 ml	≤ 10

Results exceeding alert levels will require immediate remedial action and follow-up sampling.

EFFLUENT WATER

Regional Standard (Department Water Affairs and Forestry) of 26 March 2004 No.399 for Waste water specifies : Waste water or Effluent shall **not** contain more than 1000 Faecal Coliform per 100 ml.

**SANS 241
 2015**

These results relate only to samples tested.
 Opinions and interpretations expressed herein are outside the scope of SANAS accreditation.

- Samples highlighted in grey are not within the limits as specified.

REMARKS:

- Samples NBF1/5/19: Belfast Waterworks Inlet and NBF13/5/19: HA Grove Hospital have Total Coliform counts not within the SANS 241:2015 limit. These bacteria are not pathogenic (disease forming) but it is advised to chlorinate these water samples for total disinfection.
- Sample NBF1/5/19: Belfast Waterworks Inlet does not comply with the SANS 241:2015 drinking water standard for Heterotrophic Plate Count in water. These bacteria are not pathogenic (disease forming) but it is advised to chlorinate the water for total disinfection.
- Samples NBF3/5/19: Belfast Waterworks Final, NBF10/5/19: Siyathuthuka Clinic, NBF11/5/19: Leratong Creche', NBF12/5/19: Siyathuthuka Community Hall complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. These water samples are bacteriologically suitable for domestic use.



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		BELFAST	YES	NO		A / B		
D	E 680	NBF15/5/19: Belfast Old Age Home	X		Nil	B	Nil	13
D	E 681	NBF16/5/19: Siyathuthuka Reservoir	X		Nil	B	Nil	6
D	E 682	NBF18/5/19: Belfast Old Reservoir	X		>200	B	Nil	160
D	E 683	NBF20/5/19: Belfast New Reservoir	X		>200	B	Nil	224
METHOD USED					A- SANAS 5221 (CFU) OR B - COLILERT (MPN)	SANS 5221 (CFU)	COLILERT (MPN)	SANS 5221 (CFU)
REGEN WATERS METHOD: MLPM 4A AND 4B.								

S.A.N.S. 241:2015 MICROBIOLOGICAL REQUIREMENTS Allowable compliance for DRINKING WATER

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Results exceeding alert levels will require immediate remedial action and follow-up sampling.

EFFLUENT WATER

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SANS 241 2015

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REMARKS:

- Samples NBF18/5/19: Belfast Old Reservoir and NBF20/5/19: Belfast New Reservoir have Total Coliform counts not within the SANS 241:2015 limit. These bacteria are not pathogenic (disease forming) but it is advised to chlorinate these water samples for total disinfection.
- Samples NBF15/5/19: Belfast Old Age Home, NBF16/5/19: Siyathuthuka Reservoir complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. These water samples are bacteriologically suitable for domestic use.

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					TOTAL COLIFORM BACTERIA PER / 100ML	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML
		WATERVALBOVEN	YES	NO					
D	E 684	NWB1/5/19: Watervalboven Waterworks Inlet	X		770	B	80	66	193
D	E 685	NWB3/5/19: Watervalboven Waterworks Final	X		Nil	B	Nil	Nil	16
S	E 686	NWB8/5/19: Watervalboven Sewerworks Final	X		-	B	>1000	-	-
D	E 687	NWB10/5/19: Stand P118 (602)	X		Nil	B	Nil	Nil	7
D	E 688	NWB11/5/19: Khayalami Service Centre	X		Nil	B	Nil	Nil	13
D	E 689	NWB12/5/19: Vulingcondo Stimulation Centre	X		Nil	B	Nil	Nil	3
D	E 690	NWB13/5/19: Municipal Offices Clinic	X		Nil	B	Nil	Nil	106
METHOD USED					A- SANAS 5221 (CFU) OR B - COLILERT (MPN)		SANS 5221 (CFU)	COLILERT (MPN)	SANS 5221 (CFU)
REGEN WATERS METHOD: MLPM 4A AND 4B.									

S.A.N.S. 241:2015 MICROBIOLOGICAL REQUIREMENTS Allowable compliance for DRINKING WATER

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SANS 241 2015

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REMARKS:

- Sample NWB1/5/19: Watervalboven Waterworks Inlet tested positive for pathogenic bacteria (E.Coli/ Faecal coliform bacteria). These bacteria are disease forming and the water is not safe for human consumption. It is recommended to investigate the source of contamination and chlorinate the water for total disinfection. DO NOT DRINK THIS WATER.
- Samples NWB3/5/19: Watervalboven Waterworks Final, NWB10/5/19: Stand P118 (602), NWB11/5/19: Khayalami Service Centre, NWB12/5/19: Vulingcondo Stimulation Centre, NWB13/5/19: Municipal Offices Clinic complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. These water samples are bacteriologically suitable for domestic use.

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		WATERVALBOVEN	YES	NO		A / B		
D	E 691	NWB14/5/19: FET Collage	x		Nil	B	Nil	11
D	E 692	NWB15/5/19: Silverdays Old Age Home	x		Nil	B	Nil	6
S	E 693	NWB16/5/19: Watervalboven Reservoir	x		Nil	B	Nil	8
D	E 694	NWB18/5/19: Elandsrivier Before Sewerworks	x		525	B	350	457
D	E 695	NWB20/5/19: Elandsrivier After Sewerworks	x		1046	B	990	808
METHOD USED					A- SANAS 5221 (CFU) OR B - COLILERT (MPN)	SANS 5221 (CFU)	COLILERT (MPN)	SANS 5221 (CFU)

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REMARKS:

- Samples NWB18/5/19: Elandsrivier Before Sewerworks and NWB20/5/19: Elandsrivier After Sewerworks tested positive for pathogenic bacteria (E.Coli/ Faeca coliform bacteria). These bacteria are disease forming and the water samples are not safe for human consumption. It is recommended to investigate the source of contamination and chlorinate these water samples for total disinfection. **DO NOT DRINK THIS WATER.**
- Samples NWB14/5/19: FET Collage, NWB15/5/19: Silverdays Old Age Home complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. These water samples are bacteriologically suitable for domestic use.

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