



CK: 89/14418/23  
**REGEN WATERS**  
 LABORATORY • LABORATORIUM

4 Woltemade Street  
 P.O. Box 8328  
 WITBANK 1035  
 Tel.: 013-690-1487  
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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:

8-Feb-18

Date Analyzed:

8-Feb-18

Date Reported:

10-Feb-18

Quantity Analyzed:

21

Ref No: **B 531 - 551 / 18 B**

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10		Nil	Nil	≤ 1000
					TOTAL COLIFORM BACTERIA PER / 100ML	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML
		<b>WATERVALBOVEN</b>	YES	NO					
D	B 531	WB3/2/18: W/Boven Waterworks Final	X		Nil	B	Nil	Nil	28
S	B 532	WB8/2/18: W/Boven Sewerworks Final	X		-	A	>1000	-	-
D	B 533	WB10/2/18: Stand P 118	X		Nil	B	Nil	Nil	81
D	B 534	WB11/2/18: Khayalami Service Centre	X		Nil	B	Nil	Nil	30
D	B 535	WB12/2/18: Vulingcondo Service Centre	X		Nil	B	Nil	Nil	39
D	B 536	WB13/2/18: Mississippi Resturant	X		Nil	B	Nil	Nil	33
D	B 537	WB14/2/18: Technical Workshop	X		Nil	B	Nil	Nil	35
D	B 538	WB15/2/18: Silverdays Old Age Home	X		Nil	B	Nil	Nil	34
D	B 539	WB 16/2/18 : Boven Reservoir	X		Nil	B	Nil	Nil	26
METHOD USED					A- SANAS 5221 OR B - COLILERT		SANS 5221	COLILERT	SANS 5221

#### S.A.N.S. 241-1:2015 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.

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:

a.) Samples WB3/2/18: W/Boven Waterworks Final, WB10/2/18: Stand P 118, WB11/2/18: Khayalami Service Centre, WB12/2/18: Vulingcondo Service Centre, WB13/2/18: Mississippi Resturant , WB14/2/18: Technical Workshop, WB15/2/18: Silverdays Old Age Home, WB 16/2/18 : Boven Reservoir complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.

P.L.G UYS (M.D.)  
 Technical Signatory

**SANS**  
**241-1**  
**Edition 2**  
**2015**



CK. 89/14418/23

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LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS			
			YES	NO	≤ 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
<b>BELFAST</b>								
D	B 540	BF3/2/18: Belfast Waterworks Final	X		Nil	B	Nil	72
S	B 541	BF8/2/18: Belfast Sewerworks Final	X		-	A	Nil	-
D	B 542	BF10/2/18: Siyathuthuka Clinic	X		165	B	Nil	254
D	B 543	BF11/2/18 : Leratong Creche'	X		95	B	Nil	249
D	B 544	BF12/2/18: Stand 3423/3	X		165	B	Nil	280
D	B 545	BF13/2/18: HA Grove Hospital	X		43	B	Nil	236
D	B 546	BF14/2/18: Bottom End Liquor Store	X		62	B	Nil	183
S	B 547	BF15/2/18: Belfast Old Age Home	X		66	B	Nil	258
D	B 548	BF16/2/18: Siyathuthuka Reservoir	X		95	B	Nil	236
METHOD USED					A- SANAS 5221 OR B - COLILERT	SANS 5221	COLILERT	SANS 5221

**S.A.N.S. 241-1:2015 MICROBIOLOGICAL REQUIREMENTS  
 Allowable compliance for DRINKING WATER**

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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**

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## REMARKS:

- a.) Samples BF10/2/18: Siyathuthuka Clinic, BF11/2/18 : Leratong Creche', BF12/2/18: Stand 3423/3, BF13/2/18: HA Grove Hospital, BF14/2/18: Bottom End Liquor Store and BF16/2/18: Siyathuthuka Reservoir has a Total Coliform count not within the SANS 241:2015 limit. These bacteria are not pathogenic (disease forming) but it is advised to chlorinate the water for total disinfection.
- b.) Sample BF3/2/18: Belfast Waterworks Final complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.

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 241-1  
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		<b>MACHADODORP</b>	YES	NO		A / B			
D	B 549	MH33/2/18: Leeuwspruit Before Sewer	X		>2420	B	150	127	3410
D	B 550	MH35/2/18: Leeuwspruit After Sewer	X		>2420	B	950	866	2594
S	B 551	MH37/2/18: Emthonjeni Sewer Final	X		-	A	60	-	-
METHOD USED					A - SANAS 5221 OR B - COLLERT	SANS 5221	COLILERT	SANS 5221	

#### S.A.N.S. 241-1:2015 MICROBIOLOGICAL REQUIREMENTS Allowable compliance for DRINKING WATER

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#### REMARKS:

- a.) Samples MH33/2/18: Leeuwspruit Before Sewer and MH35/2/18: Leeuwspruit After Sewer tested positive for Faecal coliform. These bacteria are pathogenic (disease forming) in nature 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.
- b.) Samples MH33/2/18: Leeuwspruit Before Sewer and MH35/2/18: Leeuwspruit After Sewer does not comply with the limit for E.coli in drinking water as set out in the SANS 241:2015 standard. These bacteria are pathogenic (disease forming) in nature 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.

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