



**MICROBIOLOGICAL ANALYSIS
 TEST REPORT**

Sample From:

**Nkangala District Municipality
 Municipal Health Services
 Emakhaseni Town Council**

**Address: Posbus 437
 Walter Sisulu
 Middelburg
 1050**

Date Received:

5-Dec-18

Date Analyzed:

5-Dec-18

Date Reported:

7-Dec-18

Quantity Analyzed:

20

Ref No: L 236 - 255 / 18 B

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10	Nil	Nil	≤ 1000	
					TOTAL COLIFORM BACTERIA PER / 100ML	FAECAL COLIFORM PER / 100 ML	ESCHERICHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
					A / B				
BELFAST					YES	NO			
D	L 236	NBF10/12/18: Siyathuthuka Clinc	X		Nil	B	Nil	Nil	13
D	L 237	NBF11/12/18: Leratong Creshe'	X		Nil	B	Nil	Nil	25
D	L 238	NBF12/12/18: Stand 3423/3	X		2	B	Nil	Nil	37
D	L 239	NBF13/12/18: HA Grove Hospital	X		Nil	B	Nil	Nil	31
D	L 240	NBF14/12/18: Bottom End Liquer Store	X		101	B	40	34	150
D	L 241	NBF15/12/18: Belfast Old Reservoir	X		>200	B	Nil	Nil	276
D	L 242	NBF16/12/18: Siyathuthuka Reservoir	X		Nil	B	Nil	Nil	52
D	L 243	NBF18/12/18: Belfast Old Age Home	X		89	B	40	29	130
D	L 244	NBF20/12/18: Belfast New Reservoir	X		130	B	Nil	Nil	30
D	L 245	NBF22/12/18: Wonderfontein Clinic	X		Nil	B	Nil	Nil	215
METHOD USED					A- SANAS 5221 (CFU) OR B - COLILERT (MPN)		SANS 5221	COLILERT (MPN)	SANS 5221
					REGEN WATERS METHOD: MLPM 4A AND 4B.				

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 species: 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:

- Samples NBF15/12/18: Belfast Old Reservoir and NBF20/12/18: 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 NBF14/12/18: Bottom End Liquer Store and NBF18/12/18: Belfast Old Age Home tested positive for pathogenic bacteria (E.Coli/ Faecal coliform bacteria). These bacteria are disease forming and the water samples are not save for human consumption. It is recommended to investigate the source of contamination and chlorinate these water samples for total disinfection. **DO NOT DRINK THIS**
- Samples NBF10/12/18: Siyathuthuka Clinc, NBF11/12/18: Leratong Creshe', NBF12/12/18: Stand 3423/3, NBF13/12/18: HA Grove Hospital, NBF16/12/18: Siyathuthuka Reservoir, NBF22/12/18: Wonderfontein Clinic complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. These water samples are bacteriologically suitable for domestic use.

SANS
 241-1
 Edition 2
 2015


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DULLSTROOM					YES	NO				
D	L 246	NDS10/12/18: Sakhelwe Clinic	X		4	B	Nil	Nil	23	
D	L 247	NDS11/12/18: Cosmo General Dealer	X		3	B	Nil	Nil	20	
D	L 248	NDS12/12/18: Sakhelwe Creche'	X		Nil	B	Nil	Nil	15	
D	L 249	NDS13/12/18: La Bomba Centre	X		3	B	Nil	Nil	17	
D	L 250	NDS14/12/18: Municipal Offices	X		3	B	Nil	Nil	23	
D	L 251	NDS15/12/18: SA Epilepsy Centre	X		Nil	B	Nil	Nil	15	
D	L 252	NDS16/12/18: Sakhelwe Reservoir	X		Nil	B	Nil	Nil	14	
D	L 253	NDS18/12/18: Dullstroom Reservoir	X		Nil	B	Nil	Nil	16	
D	L 254	NDS19/12/18: Gritchley Hotel Swimming Pool	X		Nil	B	Nil	Nil	24	
D	L 255	NDS20/12/18: Norman du Rant Borehole	X		1986	B	5	4	1440	
METHOD USED					A - SANAS 5221 (CFU) OR B - COLILERT (MPN)		SANS 5221	COLILERT (MPN)	SANS 5221	
REGEN WATERS METHOD: MLPM 4A AND 4B.										

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

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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.) Sample NDS20/12/18: Norman du Rant Borehole 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.**
- b.) Samples NDS10/12/18: Sakhelwe Clinic, NDS11/12/18: Cosmo General Dealer, NDS12/12/18: Sakhelwe Creche', NDS13/12/18: La Bomba Centre, NDS14/12/18: Municipal Offices, NDS15/12/18: SA Epilepsy Centre, NDS16/12/18: Sakhelwe Reservoir, NDS18/12/18: Dullstroom Reservoir, NDS19/12/18: Gritchley Hotel Swimming Pool 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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