



# REGEN WATERS

LABORATORY • LABORATORIUM

CK. 89/14418/23

4 Woltemade Street  
P.O. Box 8328  
WITBANK 1035  
Tel.: 013-690-1487  
Fax: 013-656-5050  
E-mail: regenlab@mweb.co.za

## MICROBIOLOGICAL ANALYSIS TEST REPORT

Sample From:

Nkangala District Municipality  
Municipal Health Services  
Emakhazeni Town Council

Address: Posbus 437  
Water Sisulu  
Middelburg  
1050

Date Received:

22-Jan-19

Date Analyzed:

22-Jan-19

Date Reported:

24-Jan-19

Quantity Analyzed:

24

Ref No: A 863 - 886 / 19 B

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
			YES	NO	≤ 10	Nil	Nil	≤ 1000	
					TOTAL COLIFORM BACTERIA PER / 100ML	FAECAL COLIFORM PER / 100 ML	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
		<b>BELFAST</b>				A / B			
<b>S</b>	<b>A 863</b>	<b>NBF8/1/19: Belfast Sewage Works Final</b>	<b>X</b>		-	<b>B</b>	<b>Nil</b>	-	-
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:

SANS  
241-1  
Edition 2  
2015

P.L.G UYS / A.KOHR

Technical Signatory

( A signed copy of this report is available )



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		<b>DULLSTROOM</b>	YES	NO		A / B			
D	A 864	NDS3/1/19: Dullstroom Waterworks Final Treated	x		Nil	B	Nil	19	
D	A 865	NDS1/1/19:Dullstroom Waterworks Inlet	x		122	B	5	170	
S	A 866	NDS8/1/19:Dullstroom Sewerworks Final Treated	x		-	B	Nil	-	
D	A 867	NDS10/1/19: Sakhelwe Clinic	x		5	B	Nil	24	
D	A 868	NDS10/1/19: Sakhelwe Clinic	x		Nil	B	Nil	40	
D	A 869	NDS11/1/19: Cosmo General Dealer	x		Nil	B	Nil	20	
D	A 870	NDS12/1/19:Sakhelwe Creche'	x		Nil	B	Nil	25	
D	A 871	NDS13/1/19: La Bamba Centre	x		1	B	Nil	24	
S	A 872	NDS14/1/19: Municipal Offices	x		Nil	B	Nil	29	
D	A 873	NDS15/1/19: SA Epilepsy Centre	x		5	B	Nil	30	
D	A 874	NDS16/1/19: Sakhelwe Reservoir	x		Nil	B	Nil	32	
D	A 875	NDS18/1/19: Dullstroom Reservoir	x		Nil	B	Nil	31	
METHOD USED					A- SANAS 5221 (CFU) OR B - COLILERT (MPN)		SANS 5221	COLILERT (MPN)	SANS 5221
					REGEN WATERS METHOD: MLPM 4A AND 4B.				

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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.

SANS  
241-1  
Edition 2  
2015

- a.) Sample NDS1/1/19:Dullstroom 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.**
- b.) Samples NDS3/1/19: Dullstroom Waterworks Final Treated, NDS10/1/19: Sakhelwe Clinic, NDS10/1/19: Sakhelwe Clinic, NDS11/1/19: Cosmo General Dealer, NDS12/1/19:Sakhelwe Creche', NDS13/1/19: La Bamba Centre, NDS15/1/19: SA Epilepsy Centre 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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<b>MACHADODORP</b>					YES	NO	A / B		
D	A 876	NMH1/1/19:Waterworks Inlet	X		>2420	B	95	84	1640
D	A 877	NMH3/1/19: Waterworks Outlet Final	X		Nil	B	Nil	Nil	127
D	A 878	NMH5/1/19:Leeuwspruit River Before Sewer	X		2420	B	650	488	1320
D	A 879	NMH7/1/19:Leeuwspruit River After Sewer	X		>2420	B	800	687	2600
S	A 880	NMH9/1/19:Sewer Works Outlet Final	X		-	B	500	-	-
D	A 881	NMH14/1/19: Emthonjeni Clinic Tap	X		6	B	Nil	Nil	316
D	A 882	NMH15/1/19: Municipal Offices Tap	X		6	B	Nil	Nil	145
D	A 883	NMH16/1/19: Stand 1485 Tap	X		3	B	Nil	Nil	59
D	A 884	NMH11/1/19: Machado Clinic	X		4	B	Nil	Nil	73
D	A 885	NMH18/1/19: Highway Nissan Garage Tap	X		10	B	Nil	Nil	119
D	A 886	NMH19/1/19: The Hog Pug Tap	X		4	B	Nil	Nil	76
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Waste water or Effluent shall not contain more than 1000 Faecal Coliform per 100 ml.

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- a.) Samples NMH1/1/19:Waterworks Inlet, NMH5/1/19:Leeuwspruit River Before Sewer and NMH7/1/19:Leeuwspruit River After Sewer tested positive for pathogenic bacteria (E.Coli/ Faecal 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.**
- b.) Samples NMH3/1/19: Waterworks Outlet Final, NMH14/1/19: Emthonjeni Clinic Tap, NMH15/1/19: Municipal Offices Tap, NMH16/1/19: Stand 1485 Tap, NMH11/1/19: Machado Clinic, NMH18/1/19: Highway Nissan Garage Tap 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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