



Postal Address: PO Box 681, Ermalshani, 1035

Physical Address: 6 Newton Street, Industrial Area, Ext 11, Middeburg, 1055

Tel: 013 246 263/5

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Water Source	Water Analyses		Client Name	Client Physical Address	Sieve Tshwete Local Municipality	Contract / Order No.
	Potable (SANIS241:2015)	12.11.2018				
Date of Collection	12.11.2018		Client Physical Address		Contract Date	
Date of Receipt	12.11.2018		Contact person		Expiry Date	
Date Analysis Started	13.11.2018		Contact number and e-mail		SABS No.	
Date Completed	21.12.2018		Sampler/Counter		NLA No.	
ANALYSIS REQUIRED	Sample Name	Graspain Reservoir	Nasaret Reservoir		Blank	
	LAB REF. NO	STLMP/180918	STLMP/180919		Blank	
	Condition of Sample	Clear	Clear		Blank	
PHYSICAL DETERMINANDS						
**Colour	mg/L Pt/Co	<2.5			Blank	TM-21
Electrical Conductivity @ 25°C	mS/m	96.80			Blank	TM-04
**Total Dissolved Solids	mg/L	556.79			Blank	TM-43
Turbidity	NTU	0.859			Blank	TM-05
pH @ 25°C	pH units	7.20			Blank	TM-03
CHEMICAL MACRO - DETERMINANDS						
**Free chlorine as Cl	mg/L	0.84			Blank	ns
**Monochloramine	mg/L	xxx			Blank	ns
Nitrate as N	mg/L	<0.40			Blank	TM-08
Nitrite as N	mg/L	<0.050			Blank	TM-07
**Combined Nitrate plus Nitrite	Ratio	<0.10			Blank	ns
**Sulphate as SO ₄	mg/L	330.00			Blank	TM-40
Fluoride as F	mg/L	0.67			Blank	TM-09/TM-10
Free and Saline Ammonia	mg/L	<0.20			Blank	TM-13/TM-14
Chloride as Cl	mg/L	28			Blank	TM-17
**Sodium as Na	mg/L	17.35			Blank	TM-37
**Zinc as Zn	mg/L	0.021			Blank	TM-83
MICROBIOLOGICAL DETERMINANDS						
E. Coli	UNIT	<1			Blank	TM-02
PROTOZOAN PARASITES						
**Cryptosporidium species	UNIT	<1			Blank	TM-02
**Giardia species	Count per 10 mL	xxx			Blank	ns
Total Coliforms	Count per 10 mL	xxx			Blank	ns
Heterotrophic Plate Count	Count per 100 mL	1			Blank	TM-02
**Somatic Coliphages	Count per 1 mL	150			Blank	TM-01
	Count per 10 mL	xxx			Blank	ns

NOTES:

- ns = not specified
- * = test was sub-contracted to another laboratory
- ** = non SANAS accredited test methods
- xxx = Analysis not required

Remarks:

- Results reported relate only to the identified sample(s) that were submitted to the laboratory.
- This test report shall not be reproduced except in full without written approval from Mpumamanzani Laboratory.
- RTF = Results to follow

A. Phathela

Vulezani Phathela - Technical Signatory



CERTIFICATE OF ANALYSIS

C-201800515



Postal Address: PO Box 681, Emalaheni, 1035
 Physical Address: 8 Newton Street, Industrial Area, Ext 11, Middelburg, 1055
 Tel: 013 246 2633/5
 Fax: 013 246 2692/1657

Subject	Water Analyses		Client Name	Client Physical Address	Steve Tshwete Local Municipality	Contract / Order No.
	Potable (SANS241:2015)	12.11.2018				
Water Source	12.11.2018		Cnr Walter Sisulu Street and Wentlerville Ave		Middelburg	15.03.2018
Date of Collection	12.11.2018		Contact person		Zibba Louw	14.03.2021
Date of Receipt	13.11.2018		Contact number and e-mail		084 802 7816/zibba@sfm.gov.za	B112
Date Analysis Started	21.12.2018		Samples/Counter		K.Swart	171
Date Completed						163
ANALYSIS REQUIRED	Sample Name	Graspan Reservoir	Nassaret Reservoir		Blank	Method Number
	LAB REF. NO	STLMP180518	STLMP180519		Blank	
CHEMICAL DETERMINANDS - MICRO DETERMINANDS	Condition of Sample	Clear		Clear	Blank	
UNIT						
**Arsimony as Sb	µg/L	<20	<20	<20	Blank	TM-53
**Arsenic as As	µg/L	<10	<10	<10	Blank	TM-53
**Barium as Ba	µg/L	55.00	55.00	50.00	Blank	TM-53
**Boron as B	µg/L	33.00	33.00	41.00	Blank	TM-53
**Cadmium as Cd	µg/L	<1	<1	<1	Blank	TM-53
**Total Chromium as Cr	µg/L	<25	<25	<25	Blank	TM-53
**Copper as Cu	µg/L	<41.3	<41.3	<41.3	Blank	TM-53
**Cyanide (Recoverable) as CN	µg/L	<10	<10	<10	Blank	ns
Iron as Fe	µg/L	<2000	<2000	<2000	Blank	TM-53
**Lead as Pb	µg/L	<4	<4	<4	Blank	TM-53
Manganese as Mn	µg/L	220.00	220.00	<100	Blank	TM-53
**Mercury as Hg	µg/L	<1	<1	<1	Blank	ns
**Nickel as Ni	µg/L	<25	<25	<25	Blank	TM-53
**Selenium as Se	µg/L	<1	<1	<1	Blank	ns
**Uranium as U	µg/L	<1	<1	<1	Blank	ns
**Aluminium as Al	µg/L	<41	<41	<41	Blank	TM-12
CHEMICAL DETERMINANDS - ORGANIC DETERMINANDS	UNIT					
**Total Organic Carbon as C	mg/L	5.2	5.2	5.4	Blank	ns
TRIHALOMETHANES	UNIT					
**Chloroform	µg/L	79	79	100	Blank	ns
**Bromoform	µg/L	<10	<10	<10	Blank	ns
**Dibromochloromethane	µg/L	19	19	21	Blank	ns
**Bromodichloromethane	µg/L	48	48	57	Blank	ns
**Combined trihalomethane	Ratio	1	1	150	Blank	ns
**Total microcystin	µg/L	xxx	xxx	xxx	Blank	ns
**Phenols	µg/L	<10	<10	<10	Blank	ns
OPERATIONAL ALERTS						
**Hardness as CaCO3	mg/L	72	72	70	Blank	TM-18
**Total Hardness as CaCO3	mg/L	375	375	347	Blank	TM-28
**Calcium Hardness as CaCO3	mg/L	152	152	140	Blank	TM-28
**Magnesium Hardness as CaCO3	mg/L	224	224	207	Blank	TM-28
**Calcium as Ca	mg/L	60.78	60.78	55.98	Blank	TM-30
**Magnesium as Mg	mg/L	54.33	54.33	50.43	Blank	TM-31
**Potassium as k	mg/L	12.69	12.69	12.22	Blank	TM-34
Cation - Anions Balancing Calculations (Water Quality Analysis)						
**Corrosivity Index	Index	3.44		4.53	Blank	ns
**% Balancing	ratio	96.54		96.24	Blank	ns

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ffDobothela

Vulezani Phuthula - Technical Signatory