



Consulting Analytical & Industrial Chemists
 Specialists in Water & Waste Water Treatment
 Telephone (021)448 6340/1
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T0276

No. 1, Vine Park
 Vine Road
 7925
 P.O. Box 483
 WOODSTOCK, CAPE
 7915

Certificate of Analysis

WITZENBERG MUNICIPALITY : BID 08/2/12/30&32

Witzenberg Municipality Reticulation Waters

22 : Water Treatment Works. Final ex Tulbagh

DATE SAMPLED : 2020/12/08

DATE RECEIVED : 2020/12/09

DATE ANALYSIS

COMMENCED : 2020/12/09

OUR REF. : 2020/12/08/30793

REPORT NO. : 6312 & 6611

	Sample Number	30793		
Mthd ALA No.	Analyses	Results	SANS 241-1:2015	% Uncertainty of Measurement
19	pH (at 25 °C)	6.81	≥5 - ≤ 9.7 Operational	1.5
9	Conductivity (mS/m) (at 25 °C)	9.0	≤170 Aesthetic	4.5
27	Turbidity (NTU)	0.93	≤1 Operational : ≤5 Aesthetic	11
97	Colour (mg/l as Pt)	<4	≤15 Aesthetic	22
99	Nitrite Nitrogen (mg/l as N)	<0.20	≤0.9 Acute Health	4
7	Total Dissolved Solids (mg/l)	62	≤1200 Aesthetic	-
95	Ammonia Nitrogen (mg/l as N)	<0.10	≤1.5 Aesthetic	5.2
98	Fluoride (mg/l as F)	<0.50	≤1.5 Chronic Health	4.4
96	Chloride (mg/l as Cl)	16.1	≤300 Aesthetic	2.6
100	Nitrate & Nitrite Nitrogen (mg/l as N)	<0.20	≤12 Acute Health	10.2
92a	Manganese (µg/l as Mn)	<20	≤100 Aesthetic ≤400 Chronic Health	5.6
92a	Aluminium (µg/l as Al)	<40	≤300 Operational	4.9
92a	Copper (µg/l as Cu)	<20	≤2000 Chronic Health	5.3
66	Total Chlorine (mg/l)	0.84	N/A	-
66	Free Chlorine (mg/l)	0.79	≤5 Chronic Health	-
85	Total Coliform Bacteria (count per 100 ml)	<1	≤10 Operational	0.21
84	E.coli (count per 100 ml)	<1	Not Detected	0.11
88	Heterotrophic Plate Count (count per ml)	<1	≤1000 Operational	0.15
105	Total Organic Carbon (mg/l as C)	0.46	≤10 Chronic Health	0.07
N/A	Combined Trihalomethanes (µg/l)	0.40	≤1.0	-
92a	Iron (µg/l as Fe)	<20	≤300 Aesthetic ≤2000 Chronic Health	4.9

Sampler : M.Van Rhyn (ALA)

This report relates only to the samples tested and is issued subject to the company's standard terms and conditions of business.



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N/A	Trihalomethane (Bromodichloromethane) (µg/l)	<10.0	≤60 Chronic Health	-
N/A	Trihalomethane (Bromoform) (µg/l)	<10.0	≤100 Chronic Health	-
N/A	Trihalomethane (Chloroform) (µg/l)	<10.0	≤300 Chronic Health	-
N/A	Trihalomethane (Dibromochloromethane) (µg/l)	<10.0	≤100 Chronic Health	-
N/A	Combined Nitrate plus Nitrite (mg/l as N)	0.22	≤1.0	-
Calc	Nitrate Nitrogen (mg/l as N)	<0.20	≤11 Acute Health	3.4

Notes:

1. Test marked with an asterisk (*) on attached Appendix 1 (Doc. 7.8#3) are SANAS Accredited and are included in the SANAS Schedule of Accreditation for this laboratory.
2. Schedule of Accreditation excludes sampling. Where applicable pH and Free & Total Chlorine Residual results are supplied by the sampling officer and will be indicated on the Certificate of Analysis. This is marked as "Field".
3. Sampling plans are as requested by the customer. Sampling is done according to A.L. Abbott and Associates (Pty) Ltd sampling procedures which are available on request.
4. Uncertainty of Measurement and Method Description will be provided upon request.
5. Results are reported at the 95% Confidence Interval with a Coverage Factor K = 2.
6. The laboratory does not normally issue any statement of conformity, unless by prior arrangement.
Decision Rule: Results reflecting on the Certificate of Analysis are actual results as obtained at the time of testing and do not include any uncertainty consideration.
7. The quality and integrity of samples submitted has a direct correlation on the results reported. Results reflected on this report therefore relate only to the sample as received.
8. In the absence of customer specified limits, SANS 241-1:2015 or General Limits will appear, as applicable.
9. This report may not be reproduced, except in full, without the prior written approval of the laboratory.
10. Opinions and interpretations are not included in the Certificate of Analysis.

Sampler : M.Van Rhyn (ALA)

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N. VAN BINSBERGEN (Pr.Sci.Nat.)
DIRECTOR
23 December 2020

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Att: S. FARMER