Established 1964

Doc.No. 7.8 # 1 Rev.4

THE WATER & WASTE WATER SPECIALISTS Consulting Analytical & Industrial Chemists Specialists in Water & Waste Water Treatment Telephone (021)448 6340/1 After Hours (083-3263887) e-Mail Address: info@alabbott.co.za



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

To 276 Certificate of Analysis

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

Witzenberg Municipality Reticulation Waters

1: Reservoir, Final, Post-Chlorination ex Ceres

DATE SAMPLED: 2022/03/02

DATE RECEIVED: 2022/03/03 OUR REF.: 2022/03/02/6466

DATE ANALYSIS 2022/03/03 REPORT NO .: 1335 **COMMENCED:**

	Sample Number	6466		
Mthd ALA No.	Analyses	Results	SANS 241-1:2015	% Uncertainty of Measurement
19	pH (at 25 °C)	4.85	≥5 - ≤ 9.7 Operational	1.5
9	Conductivity (mS/m) (at 25 °C)	7.0	≤170 Aesthetic	4.5
27	Turbidity (NTU)	1.4	≤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)	48	≤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)	10.6	≤300 Aesthetic	10
100	Nitrate & Nitrite Nitrogen (mg/l as N)	<0.20	≤12 Acute Health	10.2
92	Manganese (µg/l as Mn)	<20	≤100 Aesthetic ≤400 Chronic Health	4.2
92	Aluminium (µg/l as Al)	53	≤300 Operational	3.8
92	Copper (µg/l as Cu)	<20	≤2000 Chronic Health	3.7
66	Total Chlorine (mg/l)	2.9	N/A	-
66	Free Chlorine (mg/l)	2.6	≤5 Chronic Health	-
84	E.coli (count per 100 ml)	<1	Not Detected	4.9
85	Total Coliform Bacteria (count per 100 ml)	<1	≤10 Operational	4.2
88	Heterotrophic Plate Count (count per ml)	<1	≤1000 Operational	5.1
105	Total Organic Carbon (mg/l as C)	0.48	≤10 Chronic Health	0.07
N/A	Combined Trihalomethanes (µg/l)	0.45	≤1.0	-
92	Iron (μg/l as Fe)	53	≤300 Aesthetic ≤2000 Chronic Health	5.1

Sampler: V. Opperman (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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DATE ANALYSIS 2022/03/03 REPORT NO .: 1335 **COMMENCED:**

	Sample Number	6466		
Mthd ALA No.	Analyses	Results	SANS 241-1:2015	% Uncertainty of Measurement
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)	26.0	≤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
76	Odour	<1	N/A	-
105	Dissolved Organic Carbon (mg/l as C)	0.22	N/A	-
92	Calcium (mg/l as Ca)	1.5	N/A	6.5

Notes:

- 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.
- Uncertainty of Measurement and Method Description will be provided upon request.
- Results are reported at the 95% Confidence Interval with a Coverage Factor K = 2. 5.
- The laboratory does not normally issue any statement of conformity, unless by prior arrangement. 6. 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.
- 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 7. sample as received.
- 8. In the absence of customer specified limits, SANS 241-1:2015 or General Limits will appear, as applicable.
- 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.

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COMMENCED: 2022/03/03 REPORT NO.: 1335

J.L. DA SILVA (Cert.Sci.Nat.) TECHNICAL MANAGER 09 March 2022

TO: WITZENBERG MUNICPALITY P O Box 44 CERES 6835

Att: S. FARMER

Sampler: V. Opperman (ALA)