

CERTIFICATE OF ANALYSES
GENERAL WATER QUALITY PARAMETERS

Date received: 2011 - 09 - 30

Date completed: 2011 - 10 - 27

Project number: 157

Report number: 32564

Order number: -

Client name: Bela – Bela Local Municipality

Contact person: Mr. A. Magana

Address: Private Bag X1609, Warmbad, 0484

e-mail: archiemagana@webmail.co.za

Telephone: 014 736 8000

Facsimile: 014 736 3288

Mobile: -

Analyses in mg/l (Unless specified otherwise)	Method Identification	Sample Identification: Radium Potable Plant		SANS 241:2006 (Limits for Potable Water) ①	
		Reservoir	Clinic	Class 1 ①	Class 2 ①
Sample Number		14982	14983		
pH – Value at 25°C	WLAB001	7.5	8.0	5.0-9.5	4.0 -10.0
Electrical Conductivity in mS/m at 25°C	WLAB002	101	99.8	<150	150-370
Total Dissolved Solids (mS/m x 6.4) *	WLAB002	646	639	<1000	1000-2400
Colour in PtCo Units *	WLAB006	2	4	<20	20-50
Taste in F.T.N *	WLAB038	<5	<5	<5	5-10
Odour in T.O.N *	WLAB038	<5	<5	<5	5-10
Turbidity in N.T.U	WLAB005	0.3	0.3	<1	1-5
Free Residual Chlorine as Cl ₂ *	WLAB036	<0.1 ①	<0.1 ①	Plant final – optimum >0.5 Distribution – optimum >0.2	
Total Alkalinity as CaCO ₃	WLAB007	264	264	---	---
Calcium Hardness as CaCO ₃ *	WLAB051	319	327	---	---
Precipitation Potential as CaCO ₃ at 25°C *	WLAB053	46	60	---	---
Chloride as Cl *	WLAB046	39	---	<200	200-600
Sulphate as SO ₄	WLAB046	116	---	<400	400-600
Fluoride as F	WLAB014	<0.2	<0.2	<1.0	1.0-1.5
Nitrate & Nitrite as N *	WLAB046	33 ②	33 ②	<10	10-20
Free Cyanide as CN *	WLAB056	<0.05	---	<0.05	0.05-0.07
Dissolved Organic Carbon as C [s]	---	2.5	---	<10	10-20
Tri-Halomethanes [s]	---	<0.004	---	<0.200	0.200-0.300
Phenol [s]	---	<0.001	---	<0.010	0.010-0.070
Total Coliform Bacteria / 100 ml *	WLAB021	47 ②	57 ②	<10 (Operational Alert Value)	
Faecal Coliform Bacteria / 100 ml*	WLAB021	0	0	①	
Heterotrophic Plate Count / ml *	WLAB021	3 600	3 700	<5000 (Operational Alert Value)	
Free & Saline Ammonia as N *	WLAB046	<0.2	---	<1.0	1.0-2.0

Analysis continued on next page

A van de Wetering

Technical Signatory

The information contained in this report is relevant only to the sample/samples supplied to **WATERLAB (Pty) Ltd**. Any further use of the above information is not the responsibility of **WATERLAB (Pty) Ltd**. Except for the full report, part of this report may not be reproduced without written approval of **WATERLAB (Pty) Ltd**.

CERTIFICATE OF ANALYSES
GENERAL WATER QUALITY PARAMETERS

Date received: 2011 - 09 - 30

Date completed: 2011 - 10 - 27

Project number: 157

Report number: 32564

Order number: -

Client name: Bela – Bela Local Municipality

Contact person: Mr. A. Magana

Address: Private Bag X1609, Warmbad, 0484

e-mail: archiemagana@webmail.co.za

Telephone: 014 736 8000

Facsimile: 014 736 3288

Mobile: -

Analyses in mg/ℓ (Unless specified otherwise)	Method Identification	Sample Identification: Radium Potable Plant		SANS 241:2006 (Limits for Potable Water) ❶	
		Reservoir	Clinic	Class 1 ❶	Class 2 ❶
Sample Number		14982	14983		
Sodium as Na	WLAB015	16	---	<200	200-400
Potassium as K	WLAB015	3.9	---	<50	50-100
Calcium as Ca	WLAB015	128	---	<150	150-300
Magnesium as Mg	WLAB015	45	---	<70	70-100
Aluminium as Al	WLAB015	<0.100	---	<0.300	0.300-0.500
Antimony as Sb *	WLAB015	0.022	---	<0.010	0.010-0.050
Arsenic as As *	WLAB015	<0.010	---	<0.010	0.010-0.050
Cadmium as Cd*	WLAB015	<0.005	---	<0.005	0.005-0.010
Total Chromium as Cr	WLAB015	<0.025	---	<0.100	0.100-0.500
Cobalt as Co	WLAB015	<0.025	---	<0.500	0.500-1.00
Copper as Cu*	WLAB015	<0.025	---	<1.00	1.00-2.00
Iron as Fe*	WLAB015	<0.025	<0.025	<0.200	0.200-2.00
Lead as Pb	WLAB015	0.027	---	<0.020	0.020-0.050
Manganese as Mn*	WLAB015	<0.025	<0.025	<0.100	0.100-1.00
Mercury as Hg *	WLAB047	<0.001	---	<0.001	0.001-0.005
Nickel as Ni	WLAB015	<0.025	---	<0.150	0.150-0.300
Selenium as Se *	WLAB015	0.043	---	<0.020	0.020-0.050
Vanadium as V *	WLAB015	0.070	---	<0.200	0.200-0.500
Zinc as Zn	WLAB015	0.039	---	<5.0	5.0-10
% Balancing	---	98.8	---	---	---

* = Not SANAS Accredited

Tests marked "Not SANAS Accredited" in this report are not included in the SANAS Schedule of Accreditation for this Laboratory.

[s] = Analyses performed by a Sub-Contracted Laboratory

❶ Refer to appendix 1 on the last page.

A van de Wetering

Technical Signatory

The information contained in this report is relevant only to the sample/samples supplied to **WATERLAB (Pty) Ltd**. Any further use of the above information is not the responsibility of **WATERLAB (Pty) Ltd**. Except for the full report, part of this report may not be reproduced without written approval of **WATERLAB (Pty) Ltd**.



WATERLAB (Pty) Ltd

Reg. No.: 1983/009165/07

V.A.T. No.: 4130107891

Building D
The Woods
41 De Havilland Crescent
Perseus Techno Park
Meiring Naudé Drive
Pretoria

P.O. Box 283
Perseus Park, 0020
Tel: +2712 – 349 – 1066
Fax: +2712 – 349 – 2064
e-mail: admin@waterlab.co.za



SANAS Accredited Testing Laboratory
No. T0391

CERTIFICATE OF ANALYSES **GENERAL WATER QUALITY PARAMETERS**

Date received: 2011 - 09 - 30		Date completed: 2011 - 10 - 27
Project number: 157	Report number: 32564	Order number: -
Client name: Bela – Bela Local Municipality		Contact person: Mr. A. Magana
Address: Private Bag X1609, Warmbad, 0484		e-mail: archiemagana@webmail.co.za
Telephone: 014 736 8000	Facsimile: 014 736 3288	Mobile: -

Appendix 1:

1. The standards used to evaluate the quality of the water is the “South African National Standards for Drinking Water” (SANS 241-2006), published by the SABS.
2. The Faecal Coliform Bacteria count must be 0 per 100 ml for 95% of the samples. A maximum count of 1 per 100 ml and 10 per 100 ml applies to 4% and 1% of the samples respectively. If E.Coli is used the count must be 0 per 100 ml for 99% of the samples. A maximum count of 1 per 100 ml applies to 1% of the samples.
3. SANS 241-2006 describes two classes of water:
 - Class 1 water is considered to be acceptable for lifetime consumption and is the recommended operational limit.
 - Class 2 water represents drinking water for consumption for a limited period only.
4. The evaluation of the results does not form part of the SANAS Accreditation Schedule.

A van de Wetering

Technical Signatory

The information contained in this report is relevant only to the sample/samples supplied to **WATERLAB (Pty) Ltd**. Any further use of the above information is not the responsibility of **WATERLAB (Pty) Ltd**. Except for the full report, part of this report may not be reproduced without written approval of **WATERLAB (Pty) Ltd**.