



# Under the Baobab

Editor: Michel Zwaan

## From the banks of the Olifants

Bush greetings from Grietjie.

**AGM NOTICE:** Please note the **AGM will be held on the 24<sup>th</sup> of August 2019** at 10am at no 80. If you have any motions to be voted on, or items for discussion that need to be placed on the Agenda, please send these to the committee on or before the 22<sup>nd</sup> of July 2019. I hope there will be a great turnout this year. I also urge members to please consider making themselves available for the committee.

**Temporary Gate:** Unfortunately there is still no movement on both issues sitting with RAL at the moment ( permission to relocate the gate to the new site & the deregistration of the road).

The CEO of RAL (Road Agency Limpopo) has still not signed off on the permission (despite our persistent requests to do so), and there is still no Board at RAL to deal with the objection.

Mr JC Kriek has despatched a letter informing RAL that we will proceed with our legal options if these issues are not resolved soon. The relocation of the gate has become urgent as the time for dry season animal breakouts is almost upon us.

A fellow Reserve in the APNR battled with a similar issue and was successful in forcing RAL to convene a Board specifically to hear their case and make a ruling on the deregistration. We will unfortunately have to follow this route to get results. Sadly this seems to be norm these days.

**Protected Area (PA):** There has been significant progress with regards to our PA declaration. The Balule chair and I have a meeting with the PA officials of LEDET on the 18<sup>th</sup> of July 2019. The meeting has been convened by the Director General of LEDET. At the meeting we will agree on a timeline for both declarations and the subsequent title deed endorsement letters. We will once again hand over a file containing all the relevant hard copies of the required documentation.

**IF there have been any title deed changes for your property in the last 3 months please let me know before the 18<sup>th</sup> of July** ([gm@balulenr.co.za](mailto:gm@balulenr.co.za) or [ian@nsele-reserve.co.za](mailto:ian@nsele-reserve.co.za)) .

**Tar Roads :** We have completed the repair and resurface of just over 100m of the tar road on Maggie's hill. With the test materials we have in stock we would have completed approximately 200m with the current stock. The pot holes were first repaired with cold mix, and then the entire surface area was treated with a "slurry" to create a smooth finish.

The slurry is made using an emulsion mixed with crusher dust, which is then spread over the surface and allowed to cure. We did this section to give us the opportunity to do an accurate cost calculation of doing the repairs by purchasing the materials, using our own equipment and some additional labour. We are now able to compare the costs to the quotations we have received from the Tar contractor. This data has been formulated and the results together with our recommendation will be sent out on Wednesday the 17<sup>th</sup> of July.

For those who have seen family during the recent school and university holidays, I hope you enjoyed your time with them.

Until next time,

From the banks of the Olifants.



## Waterworks

We all would agree the significant importance of drinking water and that it is important to ensure that water sourced from a private borehole is safe for its intended use.

Water quality has become scarce and sometimes found to be very localized and therefore requires sophisticated & specific pre-treatment for the general user.

It is due to the above that we **Pony Chem Projects (Pty) Ltd**, in co-operation with **Waterlab (Pty) Ltd** (Management & Laboratory Services for Water & Waste Water) decided to perform an independent survey at **Grietjie Nature Reserve** with reference to the stance of the underground water in that area.

With consent from the various owners, four (4x) borehole water samples were obtained and then submitted to Waterlab for testing & analyses specifically for potable purposes.

### CONCLUSION & RECOMMENDATIONS

#### Chemical quality

The pH values of the four (4x) samples ranged between 7.3 and 7.4, and fell within the acceptable range of  $\geq 5$  to  $\leq 9.7$ . However, to ensure chemically stable water, a pH level in the region of 8.0 - 8.2 would be suitable.

The **Total Alkalinity** of all samples were fairly high, ranging between 392 mg/L and 504 mg/L. However, these relatively high total alkalinity values will have no negative health effects on human health.

Water at all four sampling points are considered at "**Very Hard**" due to the elevated **Calcium & Magnesium** concentrations, and subsequent high Total Hardness concentrations.

These salts come from the ground from which the water was extracted and in themselves are not a health risk. Unfortunately, the high concentration of calcium in hard water does carry **other disadvantages**.

Elevated **Magnesium** concentrations may lead to a bitter taste at all four water sources. Appropriate treatment should be considered in order to enhance the aesthetic quality of the water.

#### The adverse effect of hard water

When hard water is heated or evaporates, limescale deposits are created. This can cause *furring* in water heating appliances and pipes. The accumulation of deposits in a washing machine means that you often need to descale the inside of the appliance. In some appliances, hard water also leads to a **loss of energy efficiency**. The effect of calcium means that people use more washing powder, which is detrimental to the environment. Lastly, your body also feels the negative effects of limescale - it makes your skin dry and takes the shine from your hair.

#### Effects on daily life

Hard water and limescale also bring many inconveniences to daily life. For instance, it is difficult to descale some affected taps, pipes and water heating appliances. Furthermore, hard water also affects your wallet. You need to buy more washing powder, special descaling products and replace damaged appliances. Your energy bill will be higher too. All of this naturally has an **impact on the environment** - therefore appropriate treatment should be considered in order to reduce the hardness of the water.

Elevated **Total coliform bacteria** were detected at two (2x) of the plots, and appropriate treatment should be considered. In order to reduce any future microbiological risks, similar treatment should be considered at the other plots also.

#### What are Coliforms?

Coliforms are bacteria that are always present in the digestive tracts of animals, including humans, and are found in their wastes. They are also found in plant and soil material.

Testing for bacteria is the only reliable way to know if your water is safe. You cannot tell by the look, taste, or smell of the water if disease-causing organisms are in it.

If coliform bacteria are present in your drinking water, your risk of contracting a water-borne illness is increased. Although total coliforms can come from sources other than faecal matter, a positive total coliform sample should be considered an indication of pollution in your borehole. Positive faecal coliform results, especially positive for *E. Coli* results, should be considered an indication of faecal pollution in your borehole.

High levels of **dissolved Arsenic** were detected in one (1x) sample previously taken and on the other three (3x) samples showed elevated traces of Arsenic.

Arsenic is found naturally in the rocks in the earth's crust. It can be found in some drinking water supplies, and boreholes. Drinking water containing arsenic can have serious short-term and long-term health effects that can affect humans after prolonged exposure.

Arsenic can get into drinking water from natural deposits or runoff from agriculture, mining and industrial processes. In drinking water, arsenic has no odour or taste and can only be detected by a chemical analysis.

Heating or boiling your water will not remove arsenic. ... Additionally, chlorine (bleach) disinfection will not remove arsenic. You may wish to consider water treatment methods such as reverse osmosis, ultra-filtration, distillation, or ion exchange.

### CONCLUSION

Complete Water Assessments can be done through Waterlab.

If interested, please contact me for arrangements to collect the necessary potable water samples for analyses (*to be taken as per SANS:241 guidelines*).

#### Cost will include :

Sterilized Sample bottle/s

Travelling & Collection

Complete Water Report & Recommendation

If you have any further questions or concerns, please do not hesitate to contact me for assistance.

Sincerely

*Hans Kuik*

082 565 7890

**Report by :** Hans Kuik (Pony Chem Projects (Pty) Ltd & L.ouis de Wet (PhD FWISA NLA CorriSA) (Waterlab (Pty) Ltd (Waterlab (Pty) Ltd **References :** DEPARTMENT OF WATER AFFAIRS AND FORESTRY. 1996 South African Water Quality Guidelines (Nd Edition) Volume1.: Domestic Use  
KUNIN, R. 1972 Water Softening by Ion Exchange. Proceedings 14<sup>th</sup> Water Quality Conference. University of Illinois. Urbana 11

## Optimise your natural water facility

“Let us solve your drinking water problem”

As more natural water sources are being utilized, it has resulted in new challenges which places a need for special water applications and advanced technology. Water solutions will always be determined by the specific water quality of the natural water source, i.e. boreholes, rivers, etc.

Our treatment and technology are focused on providing clean and healthy water which is economical and easily maintained.

Contamination of water sources may occur in a variety of ways - natural, waste factories, pesticides, etc. In South Africa, acceptable drinking water criteria are compared to the SANS 241:2015 drinking water standards.



Water filtration systems requires several treatment stages in order to be effective and economical:

- Removal of coarse matter / suspended solids / foul taste and colour
- Turbidity optimization by coagulation and flocculation
- Harmful chemical compound removal / iron / manganese / arsenic / fluoride / salinity
- Disinfection of treated water against harmful microorganisms

Customised drinking water solutions:

Heavy metals purification / disinfection / removal	Reverse osmosis	Water softening	Chemical dosing / disinfection	Specialty gases / ozonation
Lead and Arsenic Iron and Copper Cadmium / Manganese	Micro / nano-filtration	Scale removal Water removal Water removal	Antibiotics pH Correction Fluoride, Ammonification	Chlorine Ozone Ultraviolet, Ozone

We are stockists of:

- Water tanks
- Water treatment systems
- Specialty gases
- Water filtration accessories

**PONY CHEM PROJECTS (PTY) LTD**

If you are interested in our systems, you can find here the most advanced water treatment solutions. Our solutions work for all industries and applications.

PO Box 9038, Brooklyn Square, Pretoria, 00015  
 4075 Driehoek Street, Claremont, Pretoria  
 Telephone: +27 (0)12 347 9712 / 082 564 7890  
 Email: gop@ponychem.co.za



Thatch • Braai Rooms • Lapas

# Traditional Thatch Roofs

Building • Architect's Plans • Engineer's Designs

www.traditionalthatchroofs.co.za      Contact Gustav: 062 613 4178

34 years of Excellence

## Service and Repairs to all Game Viewer Vehicles and all other Petrol and Diesel Vehicles on Grietjie

### Diagnostic testing for Engine and Gearbox, ABS, EBD and Airbags

# Dion #71

# 0836961805



Since being a resident on Grietjie, I realized how difficult it can be when your vehicle breaks down and Repairs are needed. I would like to offer my mechanical skills and experience to assist residents of Grietjie if help is needed.



Ever thought of making your own knife?

Now you can.

**Penga nDlovu Customs** is offering a basic, 2 day, knife-making course for a reduced price for owners and residents of only R 1600.00

You make your own knife under the professional tutelage of Michel Zwaan in a professional knife making workshop.

The 2– day course includes all the materials needed, coffee or thee and lunch.

For more information contact Michel Zwaan

**071-9033270** or [pengandlovknives@hotmail.com](mailto:pengandlovknives@hotmail.com)

Wayne's World

