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02 December 2021

Dr Ragna Redelstorff  
Heritage Officer Archaeology, Palaeontology & Meteorites Unit  
South African Heritage Resources Agency  
111 Harrington Street  
Cape Town 8001

Dear Dr Redelstorff

**RE: Request for Exemption of any Palaeontological Impact Assessment for the proposed Kayingo low-water bridge, below Mokolo Dam, Farm Laurel 195, Limpopo Province.**

In my capacity as a professional palaeontologist, I am requesting exemption for palaeontological impact assessment in terms of the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) which requires that the proposed development must be preceded by the relevant impact assessment, in this case for palaeontology.

Kayingo proposes to construct a low water bridge across the river just downstream of the Mokolo Dam, on Farm Laurel 195 (Figure 1; 24° 02' 46.86"S and 27° 06' 26.24" E). The structure will be less than 100m long (Fig 1). The site is northwest of Vaalwater and so in the Waterberg geological system. The whole area is in the Cleremont Formation sandstones and of about 2000 million years old. These sandstones with trough cross-bedding represent a relatively high energy ancient shoreline (Barker et al., 2006). At that age, the only life forms were microscopic or small marine invertebrates and only trace fossils might occur. None has been reported from this formation. It is extremely unlikely that any fossils would be found or recognised. The moderate sensitivity indicated by the SAHRIS palaeosensitivity map (Fig 2) is inconsistent with the interpretation for this formation in the Limpopo Palaeotechnical Report (Groenewald et al., 2004). We request, therefore for exemption from any further palaeontological impact assessment, and that as far as the palaeontological heritage is concerned, that this project be authorised.

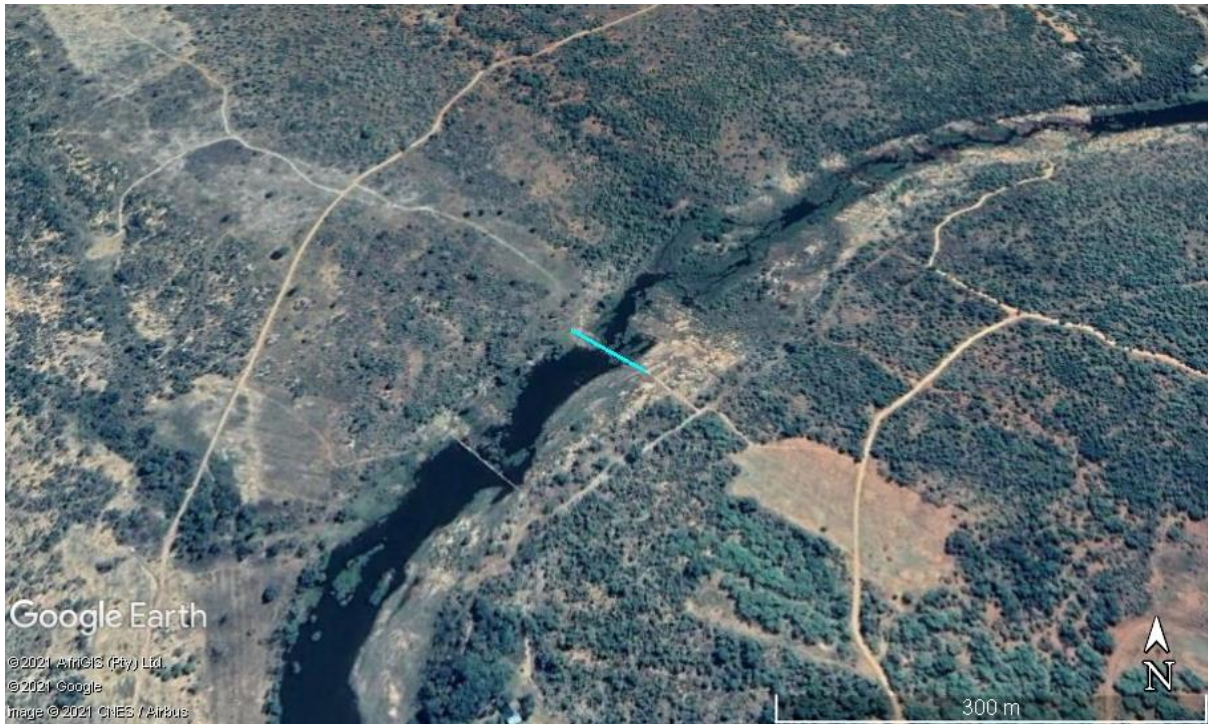


Figure 1: Google Earth map to show the location of the proposed low-water bridge across the river downstream from the Mokolo Dam (blue line).

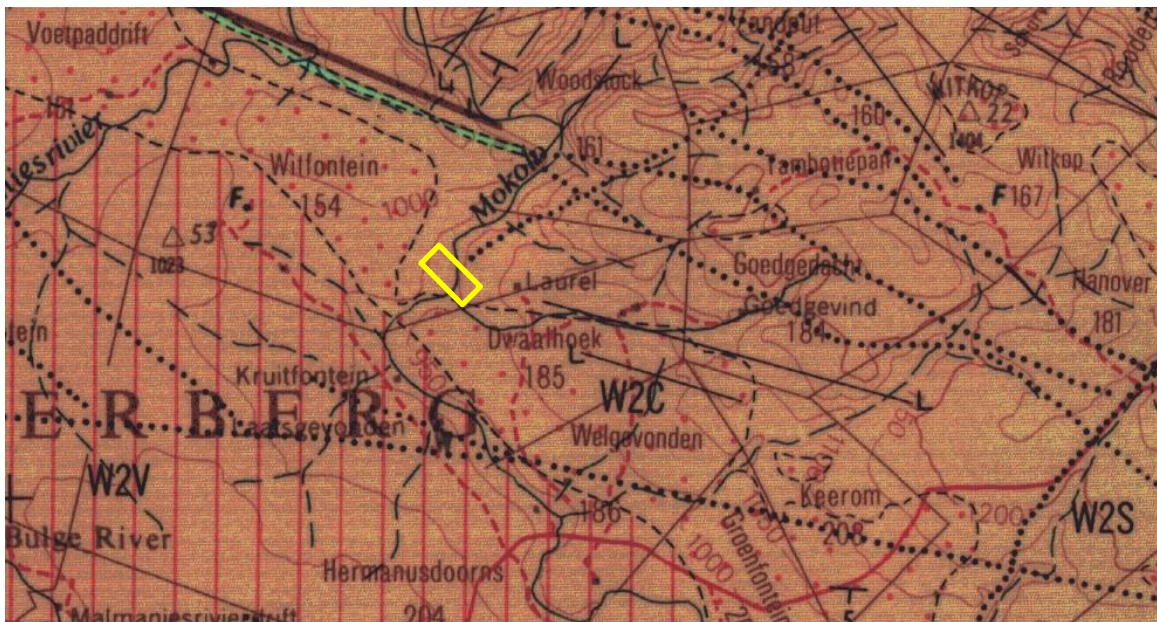


Figure 2: Geological map of the area around the Farm Laurel 195. The location of the proposed project is indicated within the yellow rectangle. Abbreviations of the rock types are: W2C – Cleremont Fm, Kranzberg Series, Watererg System; sandstones. W2V – Vaalwater Fm. W2S – Sandriver Fm. Map enlarged from the Geological Survey 1: 250 000 map 2426 Thabazimbi.



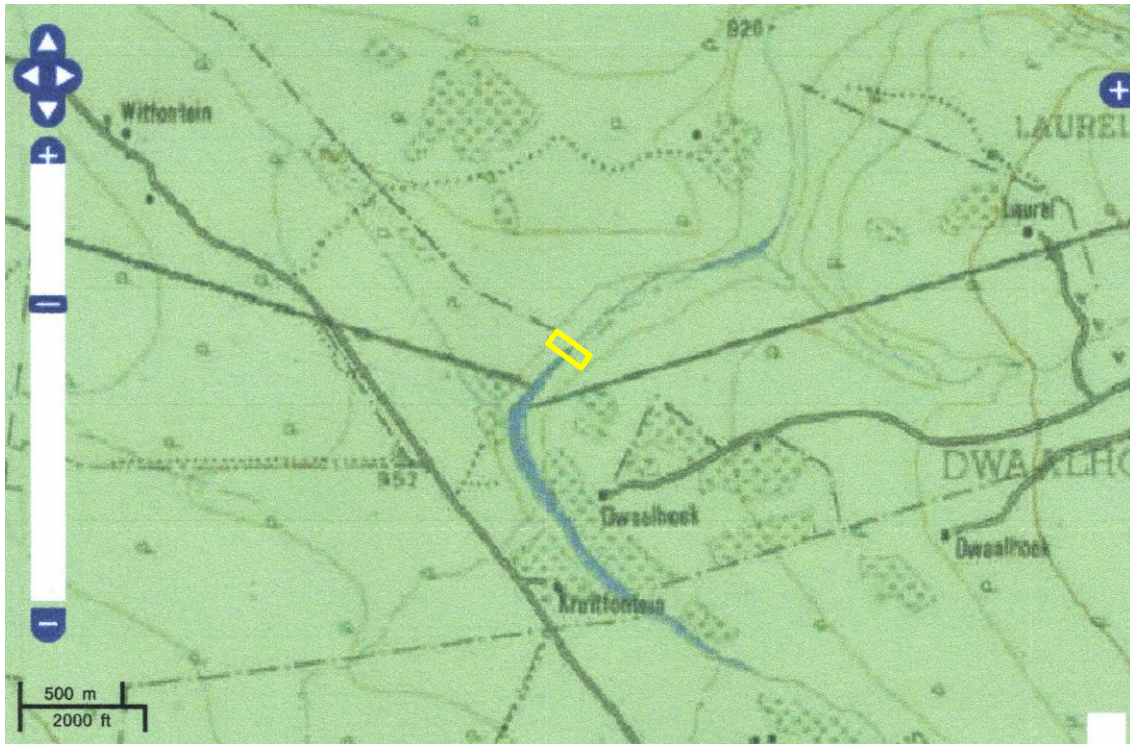


Figure 3: SAHRIS palaeosensitivity map for the site for the proposed Kayingo low-water bridge on the Mokolo River shown within the yellow rectangle. Background colours indicate the following degrees of sensitivity: red = very highly sensitive; orange/yellow = high; green = moderate; blue = low; grey = insignificant/zero.

Yours faithfully

Prof Marion Bamford  
Palaeobotanist; PhD (Wits 1990)

**References cited:**

Barker, O B., Brandl, G., Callaghan, C.C., Erikssen, P.G., van der Neut, M., 2006. The Soutpansberg and Waterberg Groups and the Blouberg Formation. In: Johnson, M.R., Anhaeusser, C.R. and Thomas, R.J., (Eds). The Geology of South Africa. Geological Society of South Africa, Johannesburg / Council for Geoscience, Pretoria. Pp 301-318.

Groenewald, G., Groenewald, D., Groenewald, S., 2014. SAHRA Palaeotechnical Report. Palaeontological Heritage of Limpopo. 22 pages.

## Chance Find Protocol

### **Monitoring Programme for Palaeontology – to commence once the excavations / drilling activities begin.**

1. The following procedure is only required if fossils are seen on the surface and when drilling/excavations/mining commence.
2. When excavations begin the rocks and must be given a cursory inspection by the environmental officer or designated person. Any fossiliferous material (plants, insects, bone, trace fossils) should be put aside in a suitably protected place. This way the project activities will not be interrupted.
3. Lists of possible fossils can be provided to the developer to assist in recognizing them.
4. Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment.
5. If there is any possible fossil material found by the contractor/environmental officer then the qualified palaeontologist sub-contracted for this project, should visit the site to inspect the selected material and check the dumps where feasible.
6. Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits.
7. If no good fossil material is recovered then no site inspections by the palaeontologist will be necessary. A final report by the palaeontologist must be sent to SAHRA once the project has been completed and only if there are fossils.
8. If no fossils are found and the excavations have finished then no further monitoring is required.

### **Declaration of Independence**

This letter has been compiled by Professor Marion Bamford, of the University of the Witwatersrand, sub-contracted by Kudzala, South Africa. The views expressed in this report are entirely those of the author and no other interest was displayed during the decision making process for the Project.

Specialist: Prof Marion Bamford

Signature:

