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28 April 2023

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 Dorado 1 Solar Park project north of Northam, Limpopo Province.**

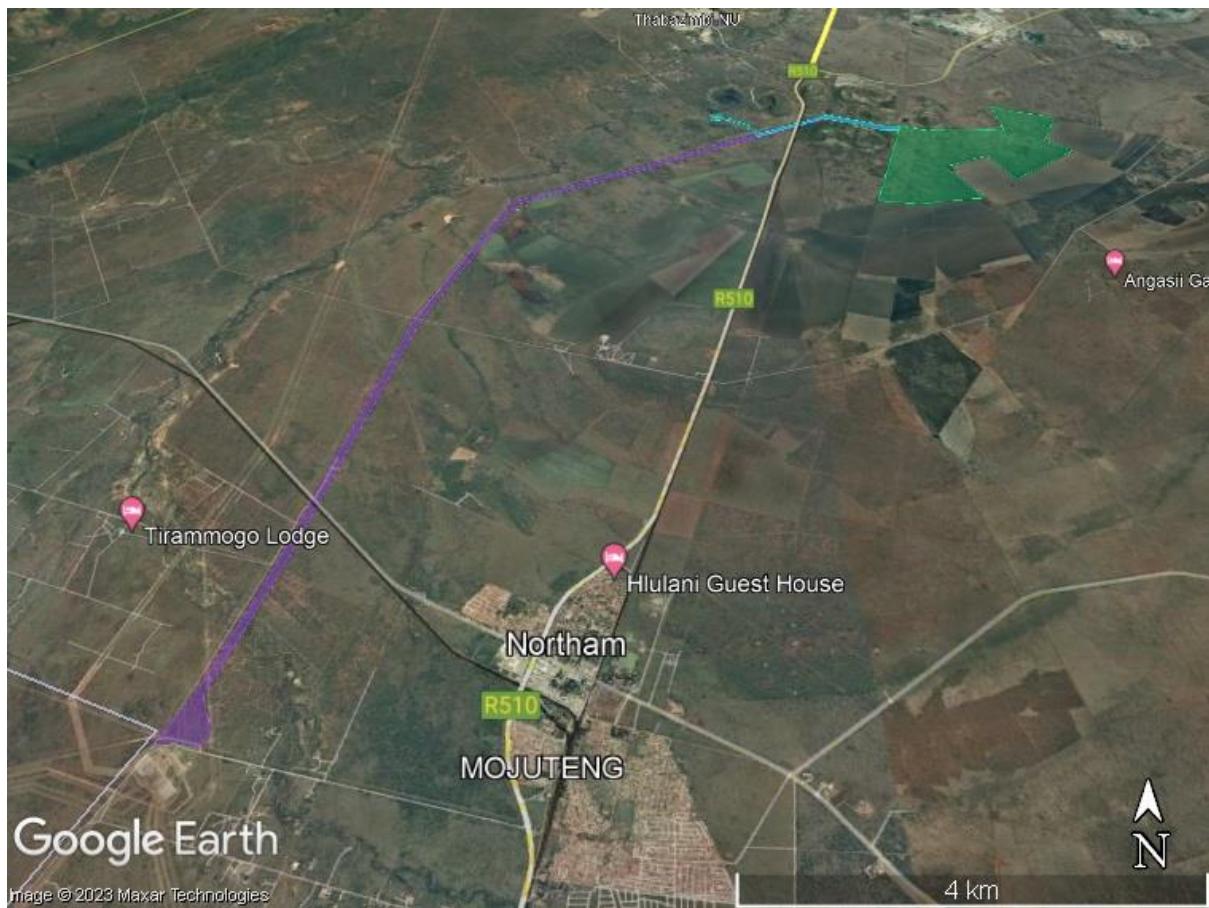
In my capacity as a professional palaeontologist, I am requesting exemption for palaeontological impact assessment in terms of the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998) which requires that the proposed development must be preceded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

Dorado Energy (Pty) Ltd (Reg. No: 2022/367417/07) is proposing the establishment of a renewable energy generation facility (Photovoltaic Power Plant) with associated infrastructure and structures on the following properties: Remainder, Portions 2 and 3 of the Farm GOEVERNEMENTS PLAATS 417 KQ and Remainder of Kopje Alleen 422 KQ located within the Thabazimbi Local Municipality, Waterberg District Municipality, Limpopo Province.

The project site is located 10 km North-North-East of Northam and  $\pm 15$  km North-East of the Eskom Spitskop Main Transmission Substation.

The proposed renewable energy generation facility will consist of a Photovoltaic (PV) Power Plant with the following Maximum Export Capacity and development area (footprint):

Project name	Maximum Export Capacity	Maximum Footprint	Project sites / Properties
<b>Dorado 1 Solar Park</b>	240 MW	490 ha	Remainder, Portions 2 and 3 of the Farm GOVERNEMENTS PLAATS 417 KQ Remainder of the Farm KOPJE ALLEEN 422 KQ



**Figure 1: Google Earth site map for Dorado 1 Solar Park. The PV Park is shown by the green polygons and the grid connection by the lilac line.**

The entire project lies on non-fossiliferous igneous and metamorphosed rocks of the upper zone of the Rustenburg Layered Suite, Bushveld Igneous Complex (Figure 2). Ferro-gabbro and gabbro-norite are enriched with the platinum group elements and mined extensively (Cawthorn et al., 2006). There is no chance that any of these rocks Palaeoproterozoic rocks have any fossils preserved within them. They are older than the evolution of body fossils but do not preserve fossil microbes either because they are of volcanic origin. The lack of fossils is also indicated by the grey colour coding (zero to insignificant) in the SAHRIS Palaeosensitivity map (Figure 3).

Therefore, we request exemption of any further palaeontological impact assessment for the Dorado 1 Solar Park project.

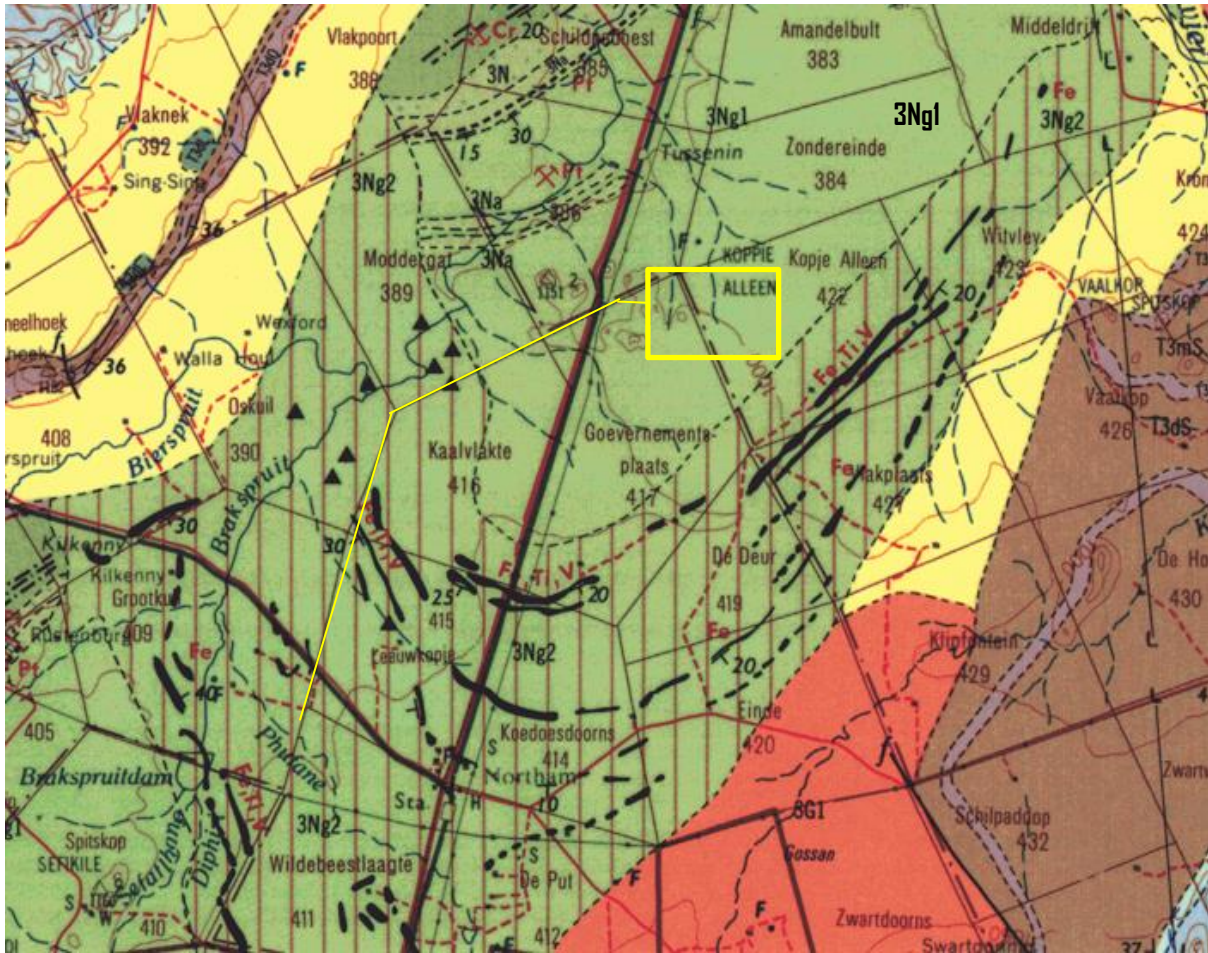
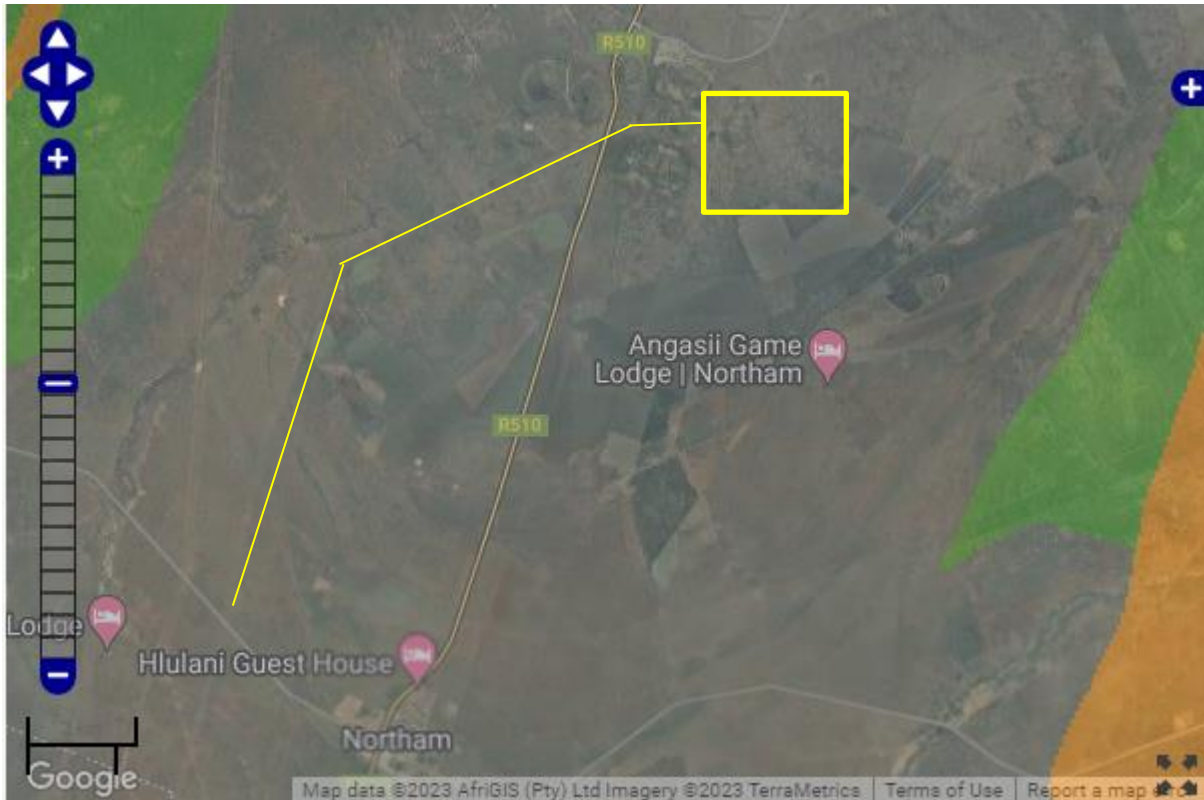


Figure 2: Geological map of the area around the Dorado 1 Solar Park (yellow polygon) and grid connection (yellow line). Abbreviations of the rock types are: 3Ng2 – Ferro-gabbro with magnetite bands; 3Ng1 – gabbro, noritic at the base. Map enlarged from the Geological Survey 1: 250 000 map 2426 Thabazimbi.





**Figure 3: SAHRIS palaeosensitivity map for the site for the proposed Dorado 1 Solar Park shown within the yellow rectangle, and grid connection (yellow line). 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)

**Reference cited:**

Cawthorn, R.G., Eales, H.V., Walraven, F., Uken, R., Watkeys, M.K., 2006. The Bushveld Complex. 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 261-281.

Palaeosensitivity map:

<https://sahris.sahra.org.za/map/palaeo>

## **Declaration of Independence**

This letter has been compiled by Professor Marion Bamford, of the University of the Witwatersrand, sub-contracted by AGES Limpopo (Pty) Ltd, 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:

A handwritten signature in blue ink, appearing to read 'MKBamford', with a horizontal line underneath.