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> Marion.bamford@wits.ac.za 11 September 2020

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 Malalane N4 road upgrade project, east of the town, Mpumalanga 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.

The proposed upgrade of the N4 highway for 10 km eastwards towards Komatiepoort is on non-fossiliferous rocks for the whole route (Figures 1 and 2). Closer to Malalane the route is on the undifferentiated basalts, schists and komatiite of the Tjakastad Subgroup, Onverwacht Group, Barberton Sequence that are ancient and of volcanic origin so do not preserve any fossils. Farther eastwards the route is along granites of the Salisbury Kop Pluton that are also ancient and of volcanic origin so do not preserve fossils. This is concired by the SAHRIS palaeosensitivity map where grey and blue shades are indicated (Figure 2).

We request, therefore, that no palaeontological impact assessment be required for this project because there is no chance of finding or disturbing any fossils.



Figure 1: Geological map of the area around Malalane eastwards along the N4 road. The location of the proposed project is indicated within the yellow rectangle. Abbreviations of the rock types: Zg = granite; Zt = Tjakastad Subgroup (Onverwacht Group, Barberton Sequence) schists; Zm = Moodies Group shales and sandstones. Map enlarged from the Geological Survey 1: 250 000 map 2530 Barberton.



Figure 2: SAHRIS palaeosensitivity map for the route for the proposed N4 road upgrade east of Malalane 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

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Prof Marion Bamford Palaeobotanist; PhD (Wits 1990)