

**NATURA VIVA cc**  
**Palaeontological Impact Assessments & Heritage Management,**  
**Natural History Education, Tourism, Research**

**Attn: Ms Irme van Zyl**  
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**Date: 26 June 2010**

**RECOMMENDED EXEMPTION FROM**  
**PALAEONTOLOGICAL IMPACT STUDY**

**Proposed construction of a gravel airstrip**  
**35km west of Vanwyksvlei-Springbok-Oog, Northern Cape Province**

According to the 1: 250 000 scale geological map sheet 3020 Sakrivier (Siebrits, 1989, Council for Geoscience, Pretoria) the two alternative sites proposed for a gravel airstrip near Vanwyksvlei - Springbok-Oog overlie Early Jurassic dolerites of the **Karoo Dolerite Suite** (c. 182-183 million years old). These intrusive igneous rocks are entirely unfossiliferous.

In the study region the Karoo dolerites intrude Early Permian basinal mudrocks of the **Prince Albert Formation** (lower **Ecca Group**). Elsewhere in southern Africa this formation has yielded low diversity marine invertebrates (bivalves, nautiloids, brachiopods), palaeoniscoid fish, sharks, fish coprolites, protozoans (foraminiferans, radiolarians), petrified wood, palynomorphs (spores, acritarchs), a variety of non-marine trace fossils (especially arthropods, fish, also various “worm” burrows), possible stromatolites, and oolites (Siebrits 1989, Almond 2008, Almond & Pether 2008).

The proposed airstrip will have minimal impact on the bedrock since the only excavations envisaged comprise 500mm holes for the main posts of the hanger. The development is therefore not considered to pose a significant threat to palaeontological heritage and in my view no further palaeontological impact studies are required.

Should fossil remains be encountered during development, however, the responsible ECO should inform SAHRA at the earliest opportunity to consider possible mitigation measures.



**Dr John E. Almond**  
**Palaeontologist**  
**Natura Viva cc**

## REFERENCES

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