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16 February 2017

Mr Koot Raubenheimer
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Dear Mr Raubenheimer,

Palaeontological Desktop Study – Matlosana Estate Klerksdorp township establishment

As requested, herewith a Desktop Palaeontological Impact Assessment with regard to the proposed township development on Matlosana Estate, Klerksdorp Northwest Province.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'B. Rubidge'.

Bruce Rubidge PhD, FGSSA, FRSSA, Pr Sci Nat

**PALAEONTOLOGICAL DESKTOP STUDY
TOWNSHIP MATLOSANA ESTATES KLERKSDORP, NORTH WEST PROVINCE.**

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DATE: 16 February 2017

EXECUTIVE SUMMARY

A desktop Palaeontological Impact Assessment was undertaken on the site earmarked for the proposed township development of Matlosana Estates on Portions 607, 608, 609, 611 and 612 of the farm Townlands of Klerksdorp No. 424-IP, Northwest Province.

The entire area is underlain by igneous rocks of the Precambrian Ventersdorp Supergroup. Although not indicated on the geological map there is a possibility that Quaternary surficial deposits could be present.

There is no possibility that these igneous rocks could contain fossils.

In my opinion this development will not negatively affect palaeontological heritage. If, in the extremely unlikely event that fossils are exposed in superficial deposits in the process of development activities, a qualified palaeontologist must be contacted to assess the exposure for fossils so that the necessary rescue operations are implemented.

TABLE OF CONTENTS

Background of development	5
Details of the study area	6
Geological Setting	6
Palaeontological Heritage	7
Recommendation	7
Conclusions	7
Bibliography	7

REPORT

Background Information of the development

This desktop report is part of a Heritage Impact Assessment to determine the effect of the proposed township development Matlosana Estates on Portions 607, 608, 609, 611 and 612 of the farm Townlands of Klerksdorp No. 424-IP on behalf of a City of Matlosana, Northwest Province. The size of the property is approximately 502 ha.

The study was commissioned by Maxim Planning Solutions (Pty) Ltd and I was requested to provide a desktop assessment of the effect that the proposed development will have on the palaeontological heritage. Specialist inputs are required in support of a Phase 1 Heritage Impact Assessment for the township development at Matlosana, and subsequent comments received in response to this study from the South African Heritage Resources Agency as well as in support of an Environmental Impact Assessment (EIA) required for several proposed listed activities in terms of the National Environmental Management Act (Act No. 62 of 2008) (NEMA).

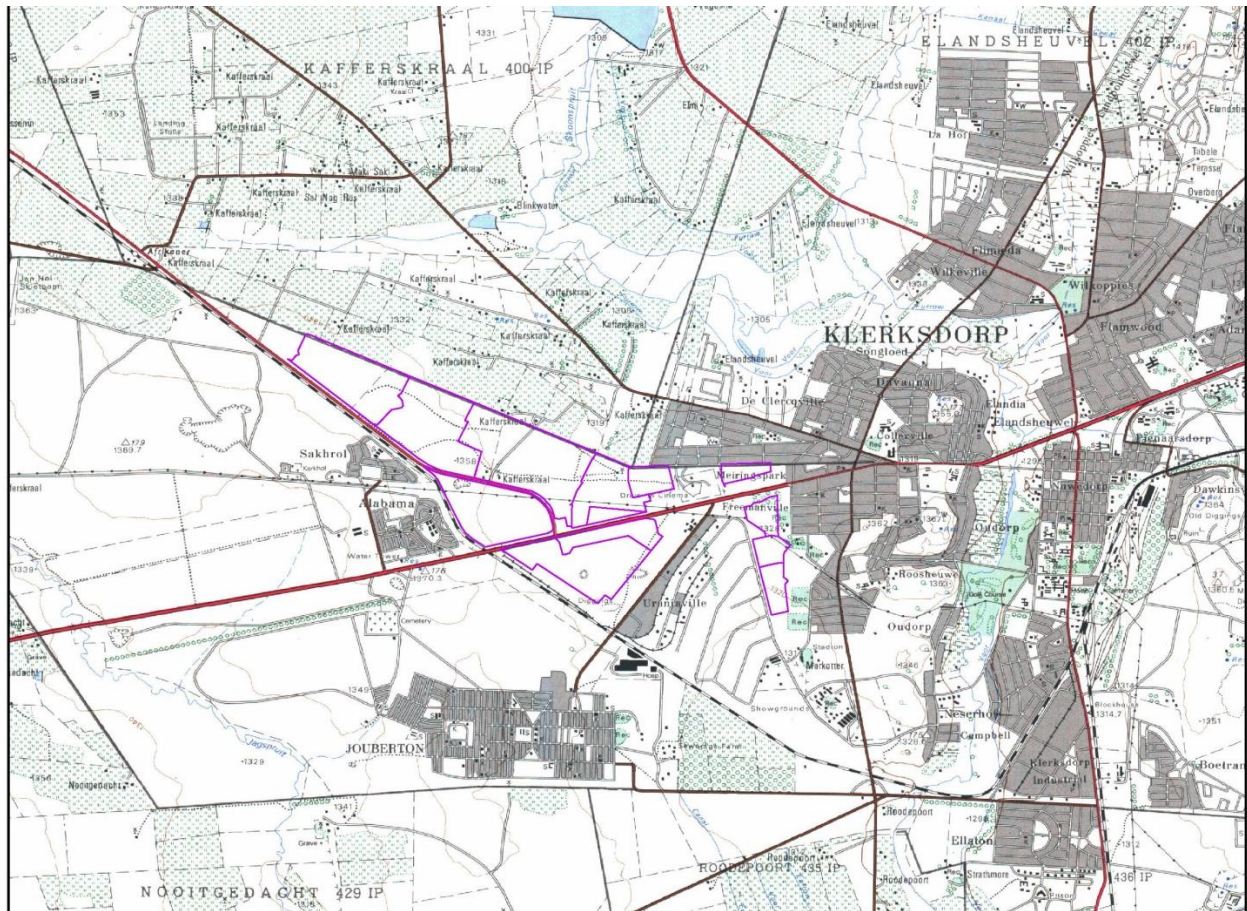


Figure 1: Map (1:50 00 scale) showing the position (purple outline) of the proposed township development on portions of the farm Townlands, Klerksdorp No. 424-IP (2626DC Klerksdorp).

Details of the study area

The study area of the proposed township development is in an area on Portions 607, 608, 609, 611 and 612 of the farm Townlands of Klerksdorp No. 424-IP, Northwest Province (Fig 1) and is covered by the 1:50 000 topographical Map Sheet 2626DC Klerksdorp. The area of the proposed development is surrounded by dense residential, industrial and other business developments. The topography of the area is relatively flat with only one low hill present in the Matlosana Estates development area. The largest portion of the area has been extensively disturbed by agricultural activities, and other developments such as powerlines and roads.

The proposed township Matlosana Estates (recently divided into 13 separate township areas i.e. Matlosana Estates Extensions 1-13) will be located on the following farm portions comprising the following areas:

Portion 607 of the farm Townlands of Klerksdorp No. 424-IP: 304,6 hectares

Portion 608 of the farm Townlands of Klerksdorp No. 424-IP: 65,7 hectares

Portion 609 of the farm Townlands of Klerksdorp No. 424-IP: 87,4 hectares

Portion 611 of the farm Townlands of Klerksdorp No. 424-IP: 35,5 hectares

Portion 612 of the farm Townlands of Klerksdorp No. 424-IP: 9,4 hectares

Geological Setting

Based on the 1:250 00 geological sheet, 2626 West Rand (1986) the area for the proposed development is underlain by amygdaloidal lava, agglomerate & tuff of the Rietgat Formation, of the Platberg Group, Ventersdorp Supergroup. These rocks are of Precambrian age and are of igneous origin (Figure 2).

Palaeontological Heritage

As the rocks of the Precambrian Ventersdorp Supergroup are of igneous origin there is no possibility of fossils being present. The geological map does not indicate the presence of alluvial deposits, and although the study area is covered by grassveld it has been affected by agricultural development.

A list of professional palaeontologists is available from South African Heritage Resources Agency (SAHRA).

Conclusions

The proposed regional township development on Portions 607, 608, 609, 611 and 612 of the farm Townlands of Klerksdorp No. 424-IP, North West Province will extend over Precambrian igneous and metamorphic rocks of the Ventersdorp Supergroup and it is extremely unlikely that fossils will be exposed as a result of the development. It is considered that, from a palaeontological perspective, the proposed development should proceed. Should fossils be uncovered in superficial soil deposits during the course of construction activities, the developer must immediately contact a qualified palaeontologist to assess the situation and, if necessary, undertake excavation of the fossils.

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