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5 October 2013

Mr Shane Turner
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Dear Mr Turner,

Palaeontological Scoping Report – Proposed Boshhoek Operation

As requested, herewith a letter of exemption with regard to the palaeontological aspect of environmental management relevant to Glencore Merafe Venture to compile a palaeontological specialist inputs at their Boshhoek operations situated north-west of Rustenburg in the North West Province of South Africa.

As is evident from my report for the Boshhoek Operation the proposed development should not have any impact on palaeontological heritage, but have included a mitigation clause.

Yours sincerely

Bruce Rubidge PhD, FGSSA, FRSSA, Pr Sci Nat

PALAEONTOLOGICAL SCOPING REPORT –

EXECUTIVE SUMMARY

This is a scoping Palaeontological Impact Assessment report on the proposed Glencore Merafe Venture Boshhoek operations situated approximately 30 km to the north-west of Rustenburg in the North West Province. The entire area is underlain by rocks of the Precambrian Bushveld Igneous Complex. Although not indicated on the geological map there is a possibility that Tertiary-Quaternary Alluvial deposits could be present.

In my opinion this development will not negatively affect palaeontological heritage. If, in the extremely unlikely event, that fossils are exposed in alluvial deposits in low-lying areas 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.

INTRODUCTION

The proposed Glencore Merafe Venture Boshhoek Operation (Boshhoek operation) is situated approximately 30 km to the north-west of Rustenburg in the North West Province of South Africa (Figure 2). The site falls within the Rustenburg Local Municipality within the Bojanala Platinum District Municipality (DC37) (Figure 1). It covers portions 66, 67, 138 of the farm Boschoek 103 JQ, portions 2, 10, 13 of the farm Bultfontein 259 JQ; portions 27, 28, 29, 30, 31 of the farm Boekenhoutfontein 260 JQ.

The Boshhoek operations comprise of both open cast mining operations (LG-6 and MG-1 chromitite layers of the Rustenburg Layered Suite, which forms part of the Bushveld Igneous Complex) as well as a Ferrochrome Beneficiation plant.

JMA Consulting (Pty) Ltd requested several specialist investigations to be done, including this Paleontological Assessment. The specialist inputs are required in support of an Environmental Management Plan (EMP) Amendment in terms of the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA) provisions, a Water Use License Application (WULA) in terms of the National Water Act (Act No. 36 of 1998) (NWA) provisions, several potential Waste License Applications (WLA) in terms of the National Environmental Management: Waste Act (Act No. 59 of 2008) (NEMWA), 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).

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- a. Specialist Expertise
Palaeontology/ Stratigraphy/ Geology
- b. Declaration of Independence



5 October 2013

Signature:

Date:

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Report Date

5 October 2013

BACKGROUND INFORMATION

The Boshhoek operations are located approximately 30 km to the north-west of Rustenburg in the North West Province (Figure 1).

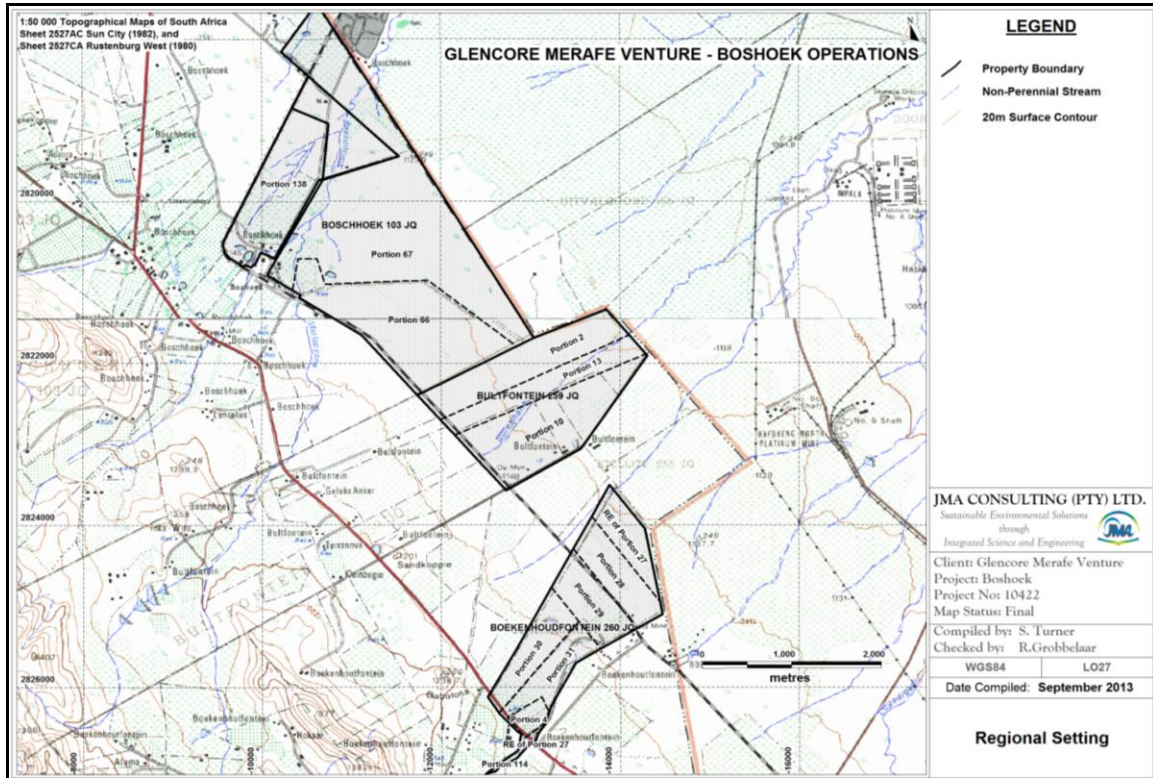


Figure 1: Topographic map of the study area (1:50 000 scale)

The Boshhoek operations comprise both open cast mining operations as well as a Ferrochrome Beneficiation plant. To facilitate and support integrated environmental management at the Boshhoek Operations, the site and associated activities are divided into 2 management areas; the open cast Mining Management Area and the ferrochrome beneficiation Plant Management Area (Figure 2).

DESCRIPTION OF PROPERTY

The Boshhoek operations are situated along the R565 road between Rustenburg and Sun City in North West Province.

The development area is outlined in black in Figures 1 & 2 and is situated on the farms: Boschhoek 103 JQ, portions 27, 66, 67, 138.

Bultfontein 259 JQ, portions 2, 10, 13.

Boekenhoutfontein 260 JQ, portions 27, 28, 29, 30, 31.

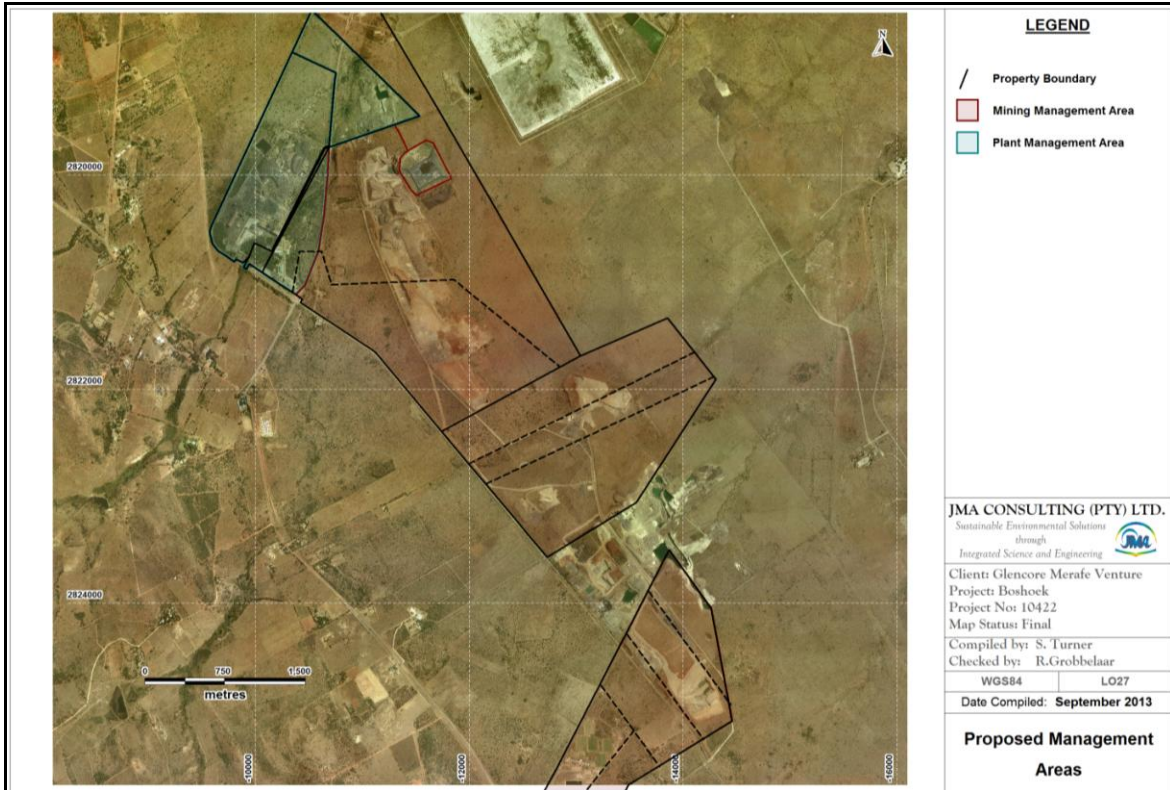


Figure 2: Proposed management areas for the Boshhoek Operations

GEOLOGICAL SETTING

Following the 1:250 000 Geological Map Series of the Republic of South Africa - Sheet 2526 Rustenburg, (1981) the area for the proposed development is situated entirely on norites and anorthosites through to gabbros, harzburgites, magnetites and pyroxenites of Rustenburg Layered Suite of the Precambrian Bushveld Igneous Complex (Figure 3).

BACKGROUND TO PALAEOLOGY OF STUDY AREA

As the rocks of the Bushveld Complex are of igneous origin there is no possibility of fossils being present. If there are Tertiary-Quaternary alluvial deposits in the low-lying areas there is a slight, but very unlikely, possibility that fossils could be present. However the geological map does not indicate the presence of alluvial deposits.

RECOMMENDATION

In my opinion this development will not negatively affect palaeontological heritage and suggest that, from a paleontological perspective, this development should proceed. If, in the extremely unlikely event that fossils are exposed in Tertiary-Quaternary alluvial deposits, it will create a unique opportunity to explore the area for fossils.

It is thus recommended that, should fossils be exposed, a qualified palaeontologist be contacted to assess the exposure for fossils so that the necessary rescue operations are implemented. Depending on the nature of the fossils discovered, this could entail excavation and removal to a registered palaeontological museum collection. A list of professional palaeontologists is available from South African Heritage Resources Agency (SAHRA).

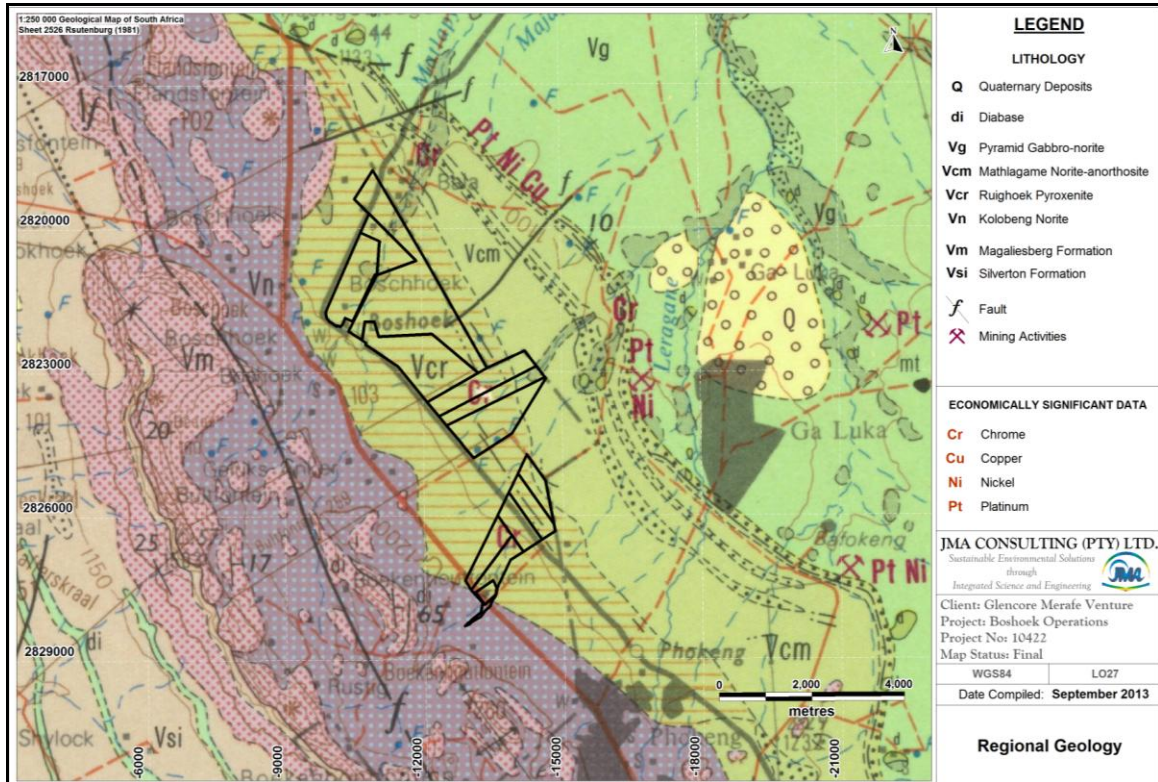


Figure 3: Geological map showing the position of the study area

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