



Enquiries: Kathryn Smuts
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CaseID: 127

Date: Friday June 22, 2012

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Final Comment

In terms of section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention:

Dr Gideon Groenewald
Metsi Metseng Geological Services CC
Private Bag X62
Suite 91
Betlehem
9700

Collection of representative sample of stromatolites

Kudumane Manganese Resources (Pty) Ltd has proposed the development of a manganese mine on the farms York A 279, Devon 277 and Telele 312 near Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province. This project will include the establishment of an opencast and underground mining operation, associated residue handling and disposal facilities, a crushing and screening plant, water management facilities, rail and road transport infrastructure and various support infrastructure and services.

The Palaeontological Impact Assessment established that the proposed mining site is underlain by claystone, calccrete and dune sand of the Cretaceous to Tertiary Kalahari Formation, which overlies the Dwyka tillite of the Karoo Supergroup, the Hotazel Iron Formation and the Ongeluk lava Formation. The Kalahari Formation deposits are not known to be fossiliferous in this region, although possible bone structures (so-called pseudo-bone) were noted in the conglomerate. The pre-Kalahari formations, however, are known to contain well-formed algal structures, stromatolites; however those identified on outcrops of banded shale and thin dolomite in the area were poorly defined. Evidence of well preserved, although small, stromatolites was identified in borehole logs in the banded iron formation or dolomite of the Mooidrai Formation.

There were no outcrops of Pre-Kalahari Dwyka or older Transvaal Supergroup rocks in the study area.

Decision:

SAHRA supports the recommendations of the specialist and requires that:

- The Environmental Control Officer should be alerted to the possible presence of pseudo-bone fragments and any structures that might indicate bone material in the limestone
- If well defined structures of stromatolites are identified banded iron stone and dolomite during mining, a representative sample of at least 1m³ be collected. SAHRA requires that, in terms of the National Heritage Resources Act (Act 25 of 1999), the provisions of section 35 apply. The palaeontologist will require a mitigation permit from SAHRA On receipt of a satisfactory mitigation (Phase 2) permit report



The South African Heritage Resources Agency

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- from the palaeontologist, the heritage authority will make further recommendations in terms of the site.
- A destruction permit must be applied for the identified stromatolites present in the banded iron stone and dolomite.

If the recommendations made in the specialist report and in this comment are adhered to, the SAHRA Archaeology, Palaeontology and Meteorites Unit has no objection to the development (in terms of the archaeological and palaeontological components of the heritage resources). If any new evidence of archaeological sites or artefacts, palaeontological fossils, graves or other heritage resources are found during development, construction or mining, SAHRA and a professional archaeologist and/or palaeontologist, depending on the nature of the finds, must be alerted immediately.

Decisions on Built Environment (e.g. structures over 60 years) and associated Living Heritage (e.g. sacred sites) must be made by the Provincial Heritage Resources Authority of the Northern Cape (**Mr. Andrew Timothy, email: ratha.timothy@gmail.com**) to whom this Archaeological Review Comment will be copied.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Kathryn Smuts
Heritage Officer: Archaeology

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:

Terms & Conditions:



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Kudumane Mine

Our Ref: 80/12/06/004/61 9/2/055/0002



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1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
 2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
 3. SAHRA reserves the right to request additional information as required.



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