



an agency of the
Department of Arts and Culture

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South African Heritage Resources Agency | 111 Harrington Street | Cape Town
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Enquiries: Stephen van der Heever
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Case ID: 25179

Date: Monday, 30 June, 2025

Interim Comment

In terms of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999)/In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Motuoane Energy (Pty) Ltd
Environmental Impact Management Services (Pty) Ltd
8 Dalmeny Road
Pine Park
Randburg
2193

Environmental Impact Management Services (Pty) Ltd has been appointed by Motuoane Energy (Pty) Ltd to conduct an Environmental Authorisation (EA) Application for the proposed Exploration Right (ER) for hydrocarbons in an area of $\pm 58,000$ ha, over numerous properties near the towns of Virginia, Hennenman and Odendaalsrus, which fall within the Matjhabeng and Moqhaka Local Municipalities, Lejweleputswa and Fezile Dabi District Municipalities, Free State Province.

A draft Scoping Report (DSR) has been submitted in terms of the National Environmental Management Act, no 107 of 1998 (NEMA) and the NEMA Environmental Impact Assessment (EIA) Regulations. The proposed development will entail onshore core and/or percussion exploration drilling and seismic survey activities at target well sites. Up to thirteen exploration boreholes will be sited within the assessed 500m buffer drilling sites, with an overall depth of ± 650 m and a maximum width of 350 mm. Exploration trays, hazardous and general storage, waste storage, chemical toilets, and any site offices required will also be placed inside the drill pad. Each drill site will be suitably rehabilitated before drilling continues at the next drill site. Depending on the results of the sampling, each borehole will either be plugged entirely or left as is for future analysis. All boreholes will be capped with a steel cap that is engraved with the borehole number.

Dr Lucien James and Dr Heidi Fourie have been appointed to provide heritage specialist input as part of the EIA process as required by section 24(4)b(iii) of NEMA and section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).

Fourie, H. 2025. Baseline Palaeontology Impact Assessment for the Motuoane Exploration Right 386, Welkom, Free State.



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The bulk of the site is underlain by the Karoo Supergroup Formations and the study area is underlain by Quaternary deposits, while the largest portion of the development is underlain by the Adelaide Subgroup (Beaufort Group, Karoo Supergroup). The Palaeontological Sensitivity of all Karoo Supergroup geological formations are ranked as Very Low to Very High, and here the impact is potentially Very High for the Beaufort Group, High for Quaternary, Moderate for Ecca rocks and the Quaternary.

However, it is anticipated that no visible evidence of fossiliferous outcrops will be found in within the target areas and seismic transects during the EIA Phase based on previous studies in the area and thus an overall medium palaeontological significance is likely to be allocated for the project area. It is therefore, currently considered that the proposed development will not lead to detrimental impacts on the palaeontological reserves of the area and construction of the development may be authorised in its whole extent.

The author recommends the following:

- The ECO for this project must be informed that the Adelaide Subgroup (Beaufort Group, Karoo Supergroup) has a Very High Palaeontological Sensitivity.
- If Palaeontological Heritage is uncovered during surface clearing and excavations the Chance find Protocol attached should be implemented immediately.
- Fossil discoveries ought to be protected and the ECO/site manager must report to South African Heritage Resources Agency (SAHRA) (Contact details: SAHRA, 111 Harrington Street, Cape Town. PO Box 4637, Cape Town 8000, South Africa. Tel: 021 462 4502. Fax: +27 (0)21 462 4509. Web: www.sahra.org.za) so that mitigation (recording and collection) can be carried out.

James, L. 2025. Desktop Phase 1 Heritage Impact Assessment Report as Part of the Scoping Phase.

A total of 36 heritage resources were identified within the proposed development boundary which include two Grade II provincial heritage features identified, 31 structures, buildings, or complexes as well as three grave sites were identified as having or potentially having heritage significance. The grave sites (MO010, MO023, and MO035) have been provisionally graded as Grade III A or of High significance. All structures, buildings, complexes, or ruins thereof have been provisionally graded as Grade IV A or of Medium significance.

The author recommends the following:

- A 30m buffer around all identified heritage structures must be implemented, within which no proposed



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activities are to take place.

- A 50m buffer around all identified graves must be implemented within which no proposed activities are to take place.
- Should finds of an alarming significance, for example, a grave or high density of small finds be discovered during construction, the ECO must be informed of the discovery. SAHRA must likewise be contacted, and a qualified Archaeologist must be consulted to provide advice on how to proceed.
- A Chance Find Procedure is advised to be followed should additional heritage finds or sites been countered.

Interim Comment

The SAHRA Development Applications Unit (DAU) notes the submitted Scoping Report, Desktop Heritage Impact Assessment, and Baseline Palaeontology Impact Assessment.

The SAHRA DAU requests that an assessment of the impact to heritage resources that complies with section 38(3) of the NHRA as required by section 38(8) of the NHRA must be conducted as part of the EA process. The HIA must include an archaeological component.

The field-based archaeological component of the HIA must be conducted by a qualified archaeologist and must comply with the SAHRA 2007 Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment Reports (see www.asapa.co.za or www.aphp.org.za for a list of qualified archaeologists). The Minimum Standards refer to a Letter of Recommendation for Exemption for further studies should the specialist deem it appropriate. SAHRA reserves the right to insist on a field-based assessment should the Letter of Recommendation not provide ample information to make an informed comment.

Any other heritage resources as defined in section 3 of the NHRA that may be impacted, such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes must also be assessed.

Since the development is located in an area of Very High palaeontological sensitivity a field-based PIA is required. The assessment must be undertaken by a qualified palaeontologist and the report must comply with the 2012 Minimum Standards: Palaeontological Components of Heritage Impact Assessments.

Further comments will be issued upon the submission of the draft Environmental Impact Assessment (DEIA), Heritage Impact Assessment (HIA), and Palaeontological Impact Assessment (PIA).



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

Yours faithfully

Stephen van der Heever
Heritage Officer
South African Heritage Resources Agency

Natasha Higgitt
Manager: Development Applications Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <https://sahris.org.za/node/380264>