

**Phase 1 Archaeological Impact Assessment of a
proposed new cemetery on portion 213 (a portion of
portion 173) of the farm Neilersdrift 34, Lennertsville,
NC Province.**



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Executive Summary

- At the request of MDA Environmental Consultants a Phase 1 Archaeological Impact Assessment was carried out for a proposed construction of a cemetery on portion 213 (a portion of portion 173) of the farm Neilersdrift 34, Lennertsville, near Keimoes in the Northern Cape Province.
- The study area consists of a 3.2 ha site that is located east of the R27 road and adjacent to a municipal water reservoir facility, about 6km south of Keimoes and 2 km south of the Neilersdrift township.
- The terrain is moderately disturbed by dumping of refuse and assorted building rubble.
- A foot survey of the site revealed no evidence of ancient structures, graves or historical buildings older than 60 years within the vicinity of the study area. A few lithics, including 5 diagnostic artifacts, were recorded as individual surface occurrences, but no above-ground evidence was found of intact Stone Age archaeological assemblages or sites.
- It is unlikely that the proposed development will result in any significant palaeontological or archaeological impact at the site. The terrain in general is regarded as of low archaeological significance and is assigned a rating of Generally Protected C (GP.C).

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Introduction

At the request of MDA Environmental Consultants a Phase 1 Archaeological Impact Assessment was carried out for a proposed proposed construction of a cemetery on portion 213 (a portion of portion 173) of the farm Neilersdrift 34, Lennertsville, near Keimoes in the Northern Cape Province (**Fig. 1**). The study is required in terms of Section 38 of the National Heritage Resources Act 25 of 1999 as a prerequisite for any development which will change the character of a site exceeding 5 000 m² in extent. The task involved identification and mapping of possible heritage remains within the proposed project area, an assessment of their significance, related impact by the proposed development and recommendations for mitigation where relevant.

Terms of Reference

- Identify and map possible heritage sites and occurrences using available resources.
- Determine and assess the potential impacts of the proposed development on potential heritage resources;
- Recommend mitigation measures to minimize potential impacts associated with the proposed development.

Methodology

The heritage significance of the affected area was evaluated through a desktop study and carried out on the basis of existing field data, database information and published literature. This was followed by a field assessment by means of a pedestrian survey. A Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a digital camera were used for recording purposes. Relevant archaeological information, aerial photographs and site records were consulted and integrated with data acquired during the on-site inspection. The study area is rated according to field rating categories as prescribed by SAHRA (**Table 1**).

Description of the Affected Area

Locality data

1 : 50 000 scale topographic map 2820 DD Koekoeb

General site coordinates (**Fig. 2**):

A) 28° 45.488'S, 20° 59.887'E

B) 28° 45.431'S, 20° 59.969'E

C) 28° 45.564'S, 21° 0.018'E

D) 28° 45.589'S, 20° 59.966'E

The study area consists of a 3.2 ha site that is located east of the R27 road and adjacent to a municipal water reservoir facility, about 6km south of Keimoes and 2 km south of the Neilersdrift township (**Fig. 3**). The terrain is moderately disturbed by dumping of refuse and assorted building rubble.

Geology

The affected area is underlain by weathered Keimoes Suite granite gneiss (*Mv*), blanketed by a thin layer of gritty, brown topsoils composed of an admixture of weathered bedrock, calcretes and Kalahari sands (**Fig. 4 - 6**). The underlying granite bedrock is not palaeontologically significant.

Background

Early Stone Age artefacts have been recorded *in situ* at Kalkgaten on the farm Ratel Draai while Middle Stone Age and Later Stone Age sequences have been recorded from a number of cave sites at Zoovoorbij, Droëgrond and Waterval in the Uppington district. Archaeological and historical evidence also show that the region was extensively occupied by Khoi herders and San hunter-gatherers during the last 2000 years. Khoi groups such as the Einiqua occupied the area around and east of the Augrabies Falls while the Korana occupied the Middle-Upper Orange River further to the east. A large number of burial cairns were excavated in the Kakamas area and appear to be related to Korana herders.

Field Assessment

The pedestrian survey revealed no evidence of ancient structures, graves or historical buildings older than 60 years within the vicinity of the study area. A few lithics, including 5 diagnostic artifacts, were recorded as individual surface occurrences, but no above-ground evidence was found of intact Stone Age archaeological assemblages or sites (**Fig. 7, Table 2**).

Impact Statement

Potential impacts are summarized in **Table 3**. It is unlikely that the proposed development will result in any significant palaeontological or archaeological impact at the site. The terrain in general is regarded as of low archaeological significance and is assigned a rating of Generally Protected C (GP.C).

Recommendation

In accordance with the types and ranges of heritage resources as outlined in Sections 34, 35 and 36 of the National Heritage Resources Act (No 25 of 1999), there are no major palaeontological or archaeological grounds to halt the proposed development within the demarcated area.

References

- Beaumont P.B. & Morris D. 1990. *Archaeology of the Northern Cape*. SA3 Post-Conference Excursion Guide. McGregor Museum.
- Rudner, J. 1979. The Use of Stone Artefacts and Pottery among the Khoisan Peoples in historic and protohistoric Times. *South African Archaeological Bulletin* 34 (129): 3 – 17.
- SAHRA, 2005. Minimum Standards for the Archaeological and the Palaeontological Components of Impact Assessment Reports.
- Smith, A.B. 1995. (ed) *Einiqualand*. Rondebosch. UCT Press.
- Van Riet Lowe, C. 1941. *Prehistoric Art in South Africa*. Archaeological Series No. V. Bureau of Archaeology, Dept. of the Interior. Pretoria.

Tables and Figures

Table 1. Field rating categories as prescribed by SAHRA (2005).

Field Rating	Grade	Significance	Mitigation
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction

Table 2. Artefacts recorded during the foot survey.

Feature	Coordinates
Parallel flake blade / weathered	28°45'31.60"S 20°59'58.78"E
Core reduced piece / weathered	28°45'33.80"S 21° 0'0.50"E
Convergent flake blade / fresh	28°45'32.25"S 20°59'55.95"E
Irregular flake / rolled	28°45'28.46"S 20°59'56.54"E
Irregular flake / weathered	28°45'26.99"S 20°59'57.98"E

Table 3. Summary of Impact in terms of Extent (the size of the area that will be affected by the impact), Intensity (the anticipated severity of the impact), Duration (the timeframe during which the impact will be experienced), Reversibility of impacts, Probability, Confidence, Mitigation and Site Rating.

Impact	Extent	Intensity	Duration	Reversibility	Probability of impact	Confidence	Mitigation	Rating
Impact of proposed development on palaeontological heritage	Local	High	Permanent	Non-reversible	Improbable; Non-fossiliferous bedrock	High	None	Generally Protected C (GP.C)
Impact of proposed development on archaeological heritage	Local	High	Permanent	Non-reversible	Improbable: No aboveground evidence of <i>in situ</i> features	High	None	Generally Protected C (GP.C)

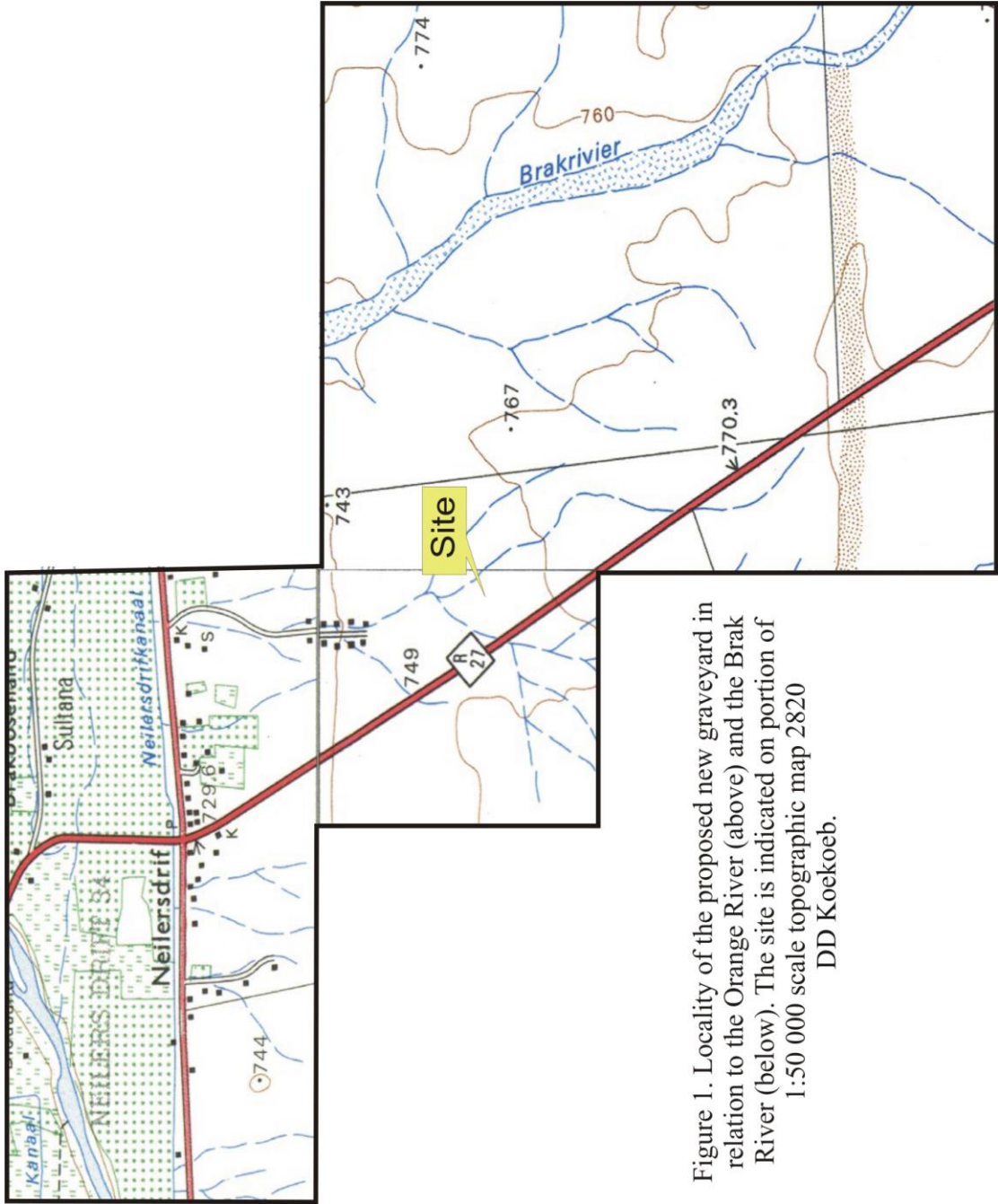


Figure 1. Locality of the proposed new graveyard in relation to the Orange River (above) and the Brak River (below). The site is indicated on portion of 1:50 000 scale topographic map 2820 DD Koekoeb.

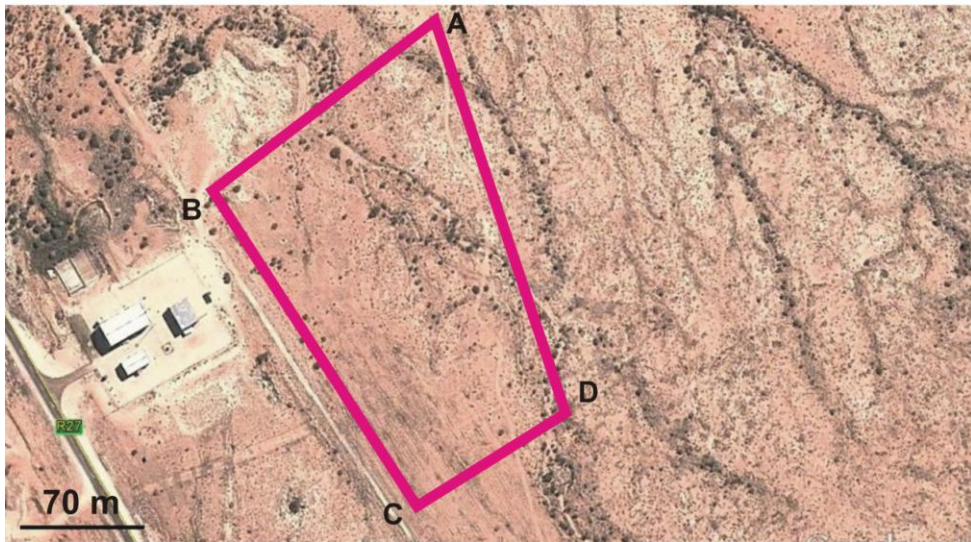


Figure 2. Aerial view of the study area.

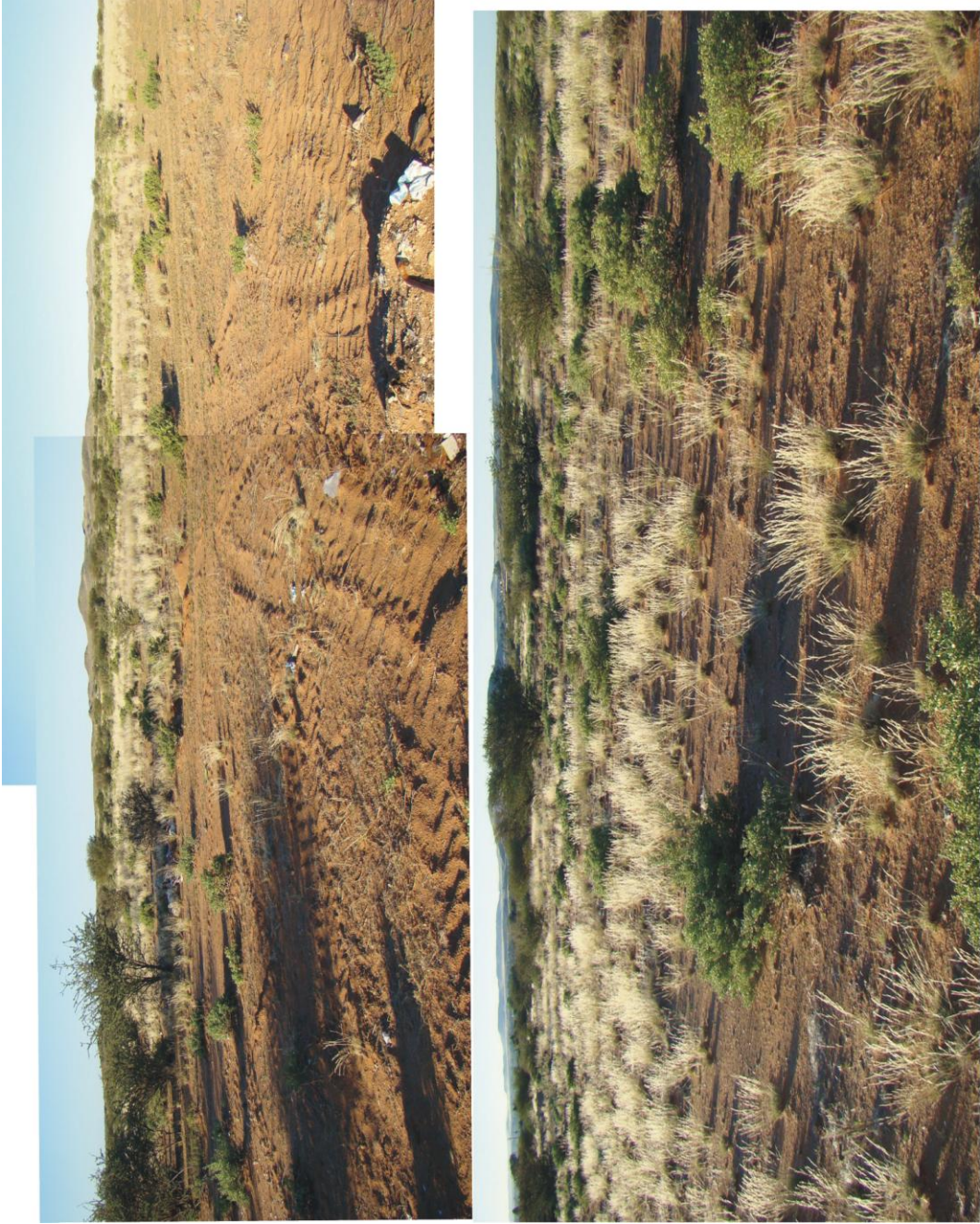


Figure 3. The study area, looking east (above) and south (below).

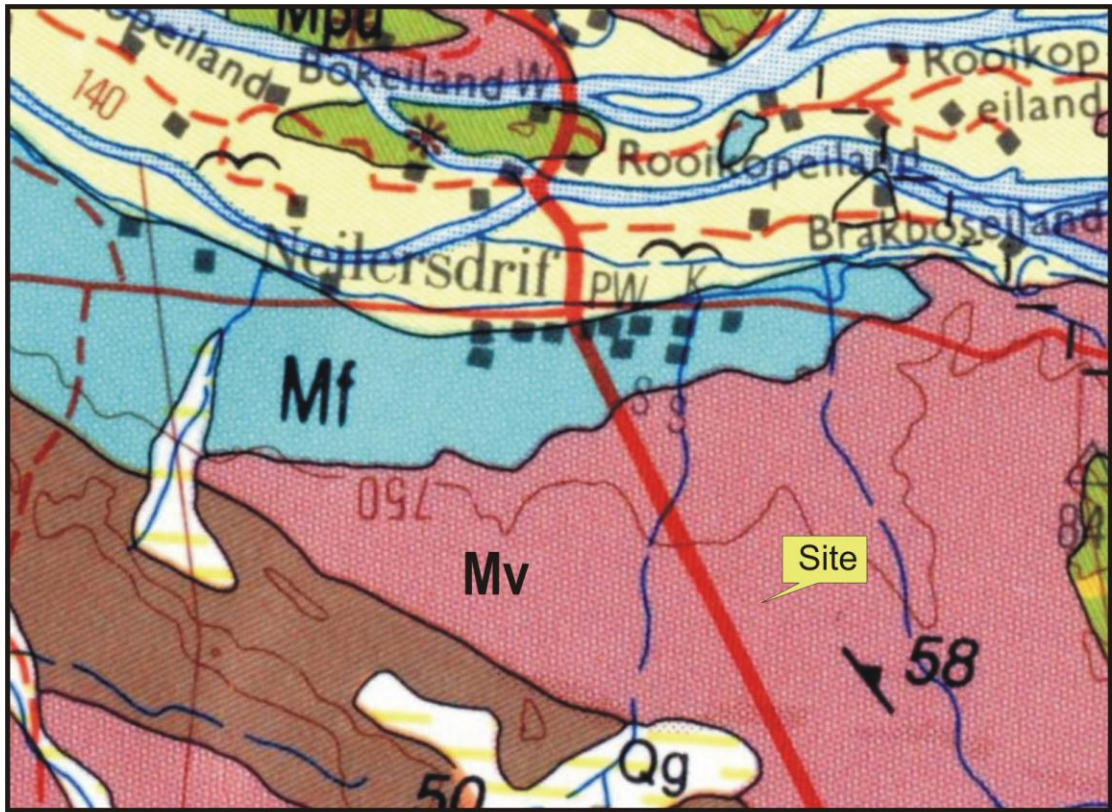


Figure 4. Underlying geology at the site according to the 1:250 000 scale geological map 2820 Uppington. The affected area is underlain by weathered Keimoos Suite granite gneiss (*Mv*) blanketed by a thin layer of gritty, brown topsoils composed of an admixture of weathered bedrock and Kalahari sands.



Figure 5. Granite outcrop in the study area.



Figure 6. Superficial sediments are made up of an admixture of gritty weathered bedrock, calcretes and Kalahari sands.



Figure 7. A relatively fresh-looking convergent flake blade with distal end removed (dorsal view above and ventral aspect below).