

**PHASE ONE HERITAGE IMPACT ASSESSMENT
OF THE PROPOSED ULUNDI 19 SERVICE
STATION ON FARM DORSTFONTEIN 526, GU,
ULUNDI, ULUNDI LOCAL MUNICIPALITY, KZN.**



ACTIVE HERITAGE cc.

For: Khobo Investment Properties (Pty) Ltd

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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at Rhodes University. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the

then University of Natal. He assisted many post-graduate students with projects relating to the cultural heritage of South Africa. He also taught post-graduate courses on qualitative research methodology to honours students at the Psychology Department, University of Natal. During this period he served on the editorial boards of the *South African Journal of Field Archaeology* and *Natalia*.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. During this period he also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukhahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18th month period.

Frans left SEF and started his own heritage consultancy called “Active Heritage cc” in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 1000 heritage conservation and management reports for various clients since the inception of “Active Heritage cc”. Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA's) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa', with heritage site data capturing and analysis for the proposed National

Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he has done background research and conceptualization of the proposed Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province. During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed World Heritage Site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution. During 2020 Frans assisted Boston College (Stellenbosch) with the formulation of lectures in Anthropology 1 and 2.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. Frans has produced more than forty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. Frans has a wide experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwa tu San Heritage Centre. Frans is also the co-founder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

Declaration of Consultants independence

Frans Prins is an independent consultant to Khobo Investment properties (Pty) Ltd and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.



Frans Prins

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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006)).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000))
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A phase one heritage survey of the proposed Ulundi 19 Service Station, Ulundi Local Municipality, identified no archaeological or heritage sites on the footprint. In addition, no heritage sites occur within 500m from the project area. The greater area is also not part of any known cultural landscape. The development may proceed from a general heritage perspective. There is no need for any mitigation. An Amafa registered palaeontologist, however, needs to conduct a desktop paleontological assessment of the area before development may proceed. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the Amafa Research Institute and KwaZulu-Natal Heritage Act (Act No. 5 of 2018), which requires that operations that expose archaeological or historical remains as well as graves older than 60 years as well as fossil material should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for Afzelia
Type of development:	Proposed Service Station.
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a phase one Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the Amafa Research Institute and Heritage Act (Act No. 5 of 2018)

1.1. Details of the area surveyed:

Khobo Investment Properties (Pty) Ltd is planning to construct a Service Station with a food outlet that will trade as Ulundi 19 Service Station on Farm Dorstfontein, 526, GU, Ulundi. The proposed Facility will serve as a refueling place, eating / take away place, with a convenience shop for motorists. The project is falling within Ulundi Local Municipality, located at the corner of R34 to Vryheid and R66 to Ulundi / Nongoma. The project co-ordinates are recorded as follows: S 28°25' 19.84" E 31°19' 29.77" (Figs 1 & 2).

The project entails the construction of Ulundi 19 Service Station including associated structures and infrastructure comprising fuel storage tanks [2 x 46 000 litres ULP], 1 x 43 000 litres diesel totaling 135 000 litres all underground, 5 x pump islands, concrete slabbing & canopy, building on site comprising office, convenience shop, food outlets, staffroom, kitchen, toilets, car wash and parking. Gas will be stored in bottles of 9kg (30), 14 kg (10), 19kg (20) and 48kg (10), totaling 1270kg at any given time. 10 000 litres of paraffin will also be stored on site, above the ground. The Service Station will stock no more than 200 litres of lubricants (oil & brake fluid) on site. It is not foreseen that the site will store more than the maximum stated above. All buildings are single storey.

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

2.1 Archaeology

The greater Ulundi area has been sporadically surveyed for archaeological heritage sites by archaeologists previously employed by the Natal Museum, the Ondini Cultural Museum and Amafa. The most systematic surveys occurred recently in the Emakhosini Oplate Park (Pelser 2013) and further south at the Umfolozi-Hluluwe Nature Reserve. It is especially the extensive surveys conducted by Penner (1970), and Hall (1980) but also subsequent research by Feely (1980) and Anderson (1988) that has thrown light on the heritage resources of this nature reserve.

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that this area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. Six Early Stone Age sites have been recorded. These sites date back to between 300 000 and 1.5 million years ago. Most of these are situated in dongas close to water with little in-situ material. An astonishing 59 Middle Stone Age sites have been recorded in the nature reserve. Middle Stone Age sites are associated with anatomically modern people and dates back to approximately 40 000 to 200 000 years ago. The vast majority of Middle Stone Age sites in the nature reserve are open-air sites. They therefore do not occur in archaeological context and have limited excavation value. Later Stone Age sites occur in various localities in the nature reserve. Thirty five Later Stone Age sites have been recorded. Although the majority of these sites are situated in open air context some are also associated with small shelters and caves. These shelters have archaeological excavation potential. The Later Stone Age is usually associated with San hunter-gatherers or their immediate predecessors and dates back to between 200 years and 30 000 years ago. Interestingly, the nature reserve also contains 11 rare examples of Zululand rock art sites. Although not as well-known as the rock art of the Drakensberg the art of this region is nevertheless unique as it is probably older and executed in a different style from the Drakensberg art.

Archaeological sites have also been recorded outside of the Umfolozi-Hluluwe Nature Reserve although our knowledge of these is more limited. Early Stone Age tools have been recorded in the greater Ulundi district. One Middle Stone Age open air site has been recorded immediately adjacent to Nongoma in the 1970's. However, this site seems to have been destroyed by development in recent years. Later Stone Age tools, belonging to the San and their immediate ancestors, occur in various localities in Zululand some open air sites have been recorded close to Ulundi. An Iron Age engraving site also occurs in the area but not in the immediate vicinity of the footprint.

Around 1 700 years ago an initial wave of Early Iron Age People settled along the inland foot of the sand dunes on sandy but humus rich soils which would have ensured good

crops for the first year or two after they had been cleared. These early agro-pastoralists produced a characteristic pottery style known as Matola. The Matola people also exploited the wild plant and animal resources of the forest and adjacent sea-shore. The communities seems to been small groups of perhaps a few dozen slash-and burn cultivators, moving into a landscape sparsely inhabited by Later Stone Age San hunter-gatherers.

By 1500 years ago another wave of Iron Age migrants entered the area. Their distinct ceramic pottery is classified to styles known as “Msuluzi” (AD 500-700), Ndongondwane (AD 700-800) and Ntshekane (AD 800-900). The vast majority of recorded sites belonging to this period occur in the Tugela River Basin below the 1000m contour to the south of the project area. Some of these, such as the Ndongondwane and Mamba sites have been excavated by archaeologists (Maggs 1989:31; Huffman 2007:325-462).

2.2 Historical past of the greater Ulundi area

The greater Ulundi area is particularly well known for its central situation relative to the development of the Zulu state of King Shaka Zulu in the early 1800's. The eMakhosini valley (Valley of the Kings) is situated in the immediate environs to the south-west of Ulundi. Surrounding the valley are several stone-walled structures associated with the once powerful Buthelezi and Khumalo clans. These clans later played a significant role in the formation of the Zulu kingdom. The famous king, Shaka Zulu, was born in the valley around 1785, and it is here that his forebears, King Nkosinkulu Zulu, King Phunga, King Mageba, King Ndaba, King Jama and King Senzangakhona, lie buried. The graves and royal residences of four Zulu rulers - King Shaka, King Dingane, King Mpande and King Cetshwayo, who ruled in succession from 1816 to 1884 – are located in the area around eMakhosini. The valley is regarded as the ancestral homeland of the Zulu nation as such this valley can also be classified as a cultural landscape. KwaNobamba specifically is the area where both King Jama (King Shaka's grandfather) and King Dinuzulu had homesteads and were buried. Other important sites within the greater eMakhosini Valley includes the kwaGqokli Hill, where King Shaka achieved his first military success against the powerful Ndwandwe under King Zwide and kwaMatiwane the Hill of Execution. Both the Voortrekker leader Piet Retief and the legendary leader of the amaNgwane people inkosi Matiwane were executed by King Dingane at this locality (Oberholser 1976; Derwent 2006)

The colonial history of the area starts around 1820 when early English ivory traders established themselves at Port Natal (Durban). Dutch descendants (i.e. Voortrekkers) moved into the area soon after 1834 and established a short lived Boer republic called Natalia to the south of the Tugela River. However, by 1845 Natal became a British colony. In 1879 Zulu-land was invaded by British forces and the area annexed soon thereafter.

Historical era sites relating to the period of the Anglo-Zulu War of 1879 also occur in the greater Ulundi area to the immediate south of the project area. These include the battlefield site of Ulundi, the Royal Residence of King Cetshwayo at Ondini, and King Mpande's Grave.

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted for previous heritage surveys and heritage site data covering the project area. In addition, the available archaeological and heritage literature covering the greater Ulundi area was consulted. Aerial photographs covering the area were scrutinised for potential Iron Age and historical period structures and grave sites. A ground survey, following standard and accepted archaeological procedures, was conducted on 6 May 2021. Particular attention was focused on the occurrence of potential grave sites and other heritage resources on the footprint.

3.1.1 *Guidance from Desktop Study*

- The desktop study indicates that Stone Age Sites of all periods and traditions may occur in the greater Ulundi area. However, Early Stone Age sites typically occur close to permanent and prominent sources of water, none of which occur in the immediate environs of the project area.
- Middle Stone Age tools have been found in dongas and erosion gullies at various locales in the KwaZulu-Natal. These sites are usually out of context and of little research value. Middle Stone Age deposits often occur in deep cave deposits throughout KwaZulu-Natal. Again no erosion gullies or suitable rocky outcrops that may harbour shelters with deep cave deposits occur in the project area.
- Later Stone Age sites are more prolific in the coastal areas of KwaZulu-Natal and also in the foothills of the Drakensberg to the west. Later Stone Age sites, including associated rock art, are known from the greater Ulundi area. However, there are no shelters or suitable rocky surfaces in the project area that may harbour such.

- Early Iron Age Sites typically occur along major river valleys below the 700 m contour in KwaZulu-Natal. Such sites have been recorded in the Mfolozi River valley near Ulundi. However, the setting of the project area is not typical of Early Iron Age site location and it is unlikely that such sites will occur on the footprint.
- Later Iron Age sites may occur in the project area. These sites were occupied by the ancestors of the first Nguni-speaking agriculturists as well as their descendants who settled in KwaZulu-Natal. Often sites are only located with reference to historical or oral data. Sites relating to the founding and expansion of the Zulu-state occur in the greater Ulundi area.
- Historical buildings, structures, mission stations and farmsteads do occur scattered throughout KwaZulu-Natal including the greater Ulundi area. Ulundi (Ondini) was the capital of the Zulu kingdom during the Anglo-Zulu War of 1879. It is possible that structures or artefacts relating to this period may occur in the project area.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

No disturbance of any potential heritage features was noted.

3.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal

Closest Towns: Ulundi

Municipality: Ulundi Local Municipality

4.2 Description of the general area surveyed

4.2.1 Background

The proposed development plot is situated in a rural area approximately 18 km to the south of Ulundi (Fig 2). It is surrounded by farm lands and is situated in the close vicinity of the Ophathe Game Reserve. The proposed development plot is undeveloped. It consists of disturbed grassland with some woody vegetation in the southern and western sections of the proposed development plot (Fig 5). It is evident that the northern section of the proposed development plot has been overgrazed in the recent past. Some erosion is evident in this section of the Plot (Fig 6). Although there is evidence for overgrazing and disturbance as caused by heavy pedestrian actions there are no heritage sites or features visible on the footprint. Both the desktop survey and the ground survey indicated that there are no heritage sites or features on the footprint (Fig 3). The area is also not part of any known cultural landscape.

However, a singular Early Stone Age core was exposed by the overgrazing in the northern section of the proposed development plot (Figs 7 & 8). The GPS coordinates for its location are: S 28° 25' 04.72" E 31° 19' 24.15" This singular stone tool, however, is out of context. No other stone tools or archaeological material was observed. Therefore this tool on its own do not classify as an archaeological site. There is no need for mitigation.

4.2.2 Stakeholder Consultation

The consultant spoke to local community members during the ground survey. None of them had any knowledge of potential heritage sites or graves situated on the footprint.

4.2.3 Desktop Paleontology Assessment

The updated fossil sensitivity map, as provided by the SAHRIS website, shows that the project area is of moderate paleontological sensitivity as is indicated by the green background colour (Fig 4). According to Amafa policy the implication is that a comprehensive paleontological desktop study will be required before the proposed development may proceed. A protocol of finds will be required for those areas, indicated in blue on fossil sensitivity map, that do not require any paleontological study. The paleontological study will have to be conducted by an Amafa accredited palaeontologist.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

Not applicable as no heritage or archaeological sites are known to occur on the footprint. The footprint has no heritage value (Tables 2 & 3).

Table 2. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

Table 3. Evaluation and statement of significance.

Significance criteria in terms of Section 3(3) of the NHRA		
	Significance	Rating
1.	Historic and political significance - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None.
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None.
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
6.	Scientific significance – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None.
7.	Social significance – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	None.
8.	Historic significance – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.	None.
9.	The significance of the site relating to the history of slavery in South Africa.	None.

6 RECOMMENDATIONS

As no heritage sites, features or graves occur in the immediate vicinity of the proposed development there is no reason why the proposed Ulundi 19 Service Station may not proceed from a heritage perspective. There is no need for any mitigation. However, a desktop paleontological impact assessment will be required before the development may proceed. It is also important to take note of the Amafa Research Institute and Heritage Act (Act no 5 of 2018) that requires that any of graves older than 60 years, archaeological and historical residues, as well as fossils should cease immediately pending an evaluation by the heritage authorities.

7 MAPS AND FIGURES

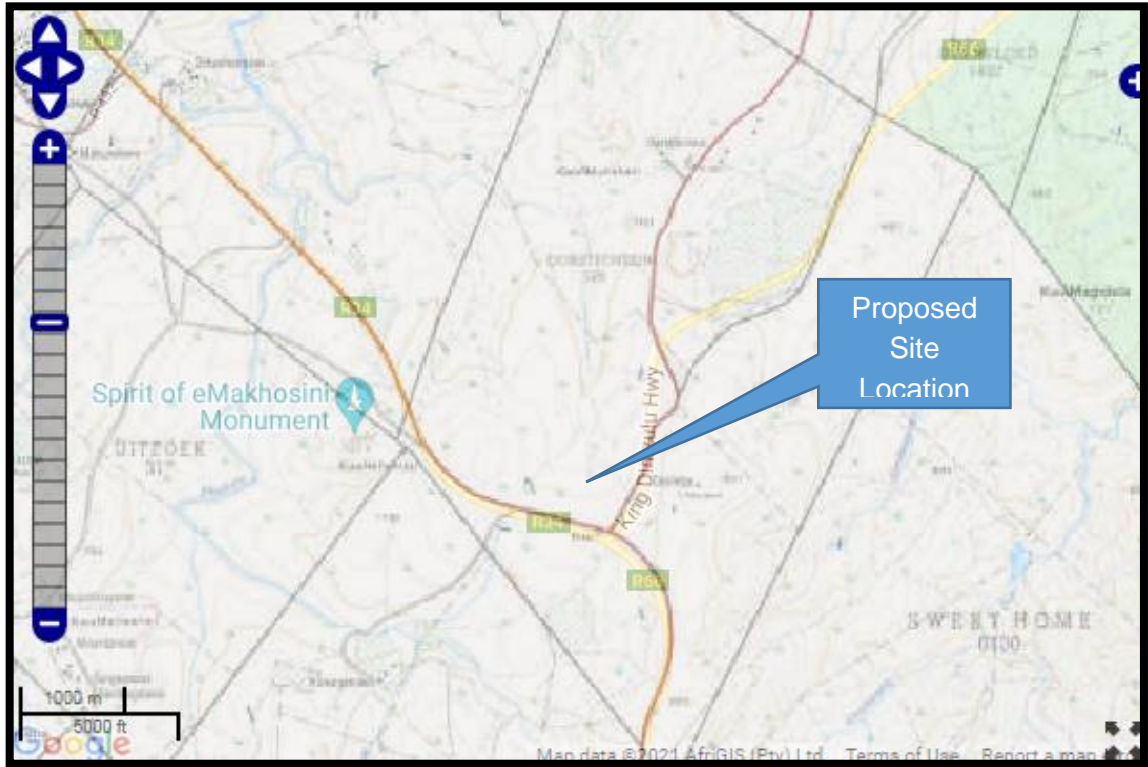


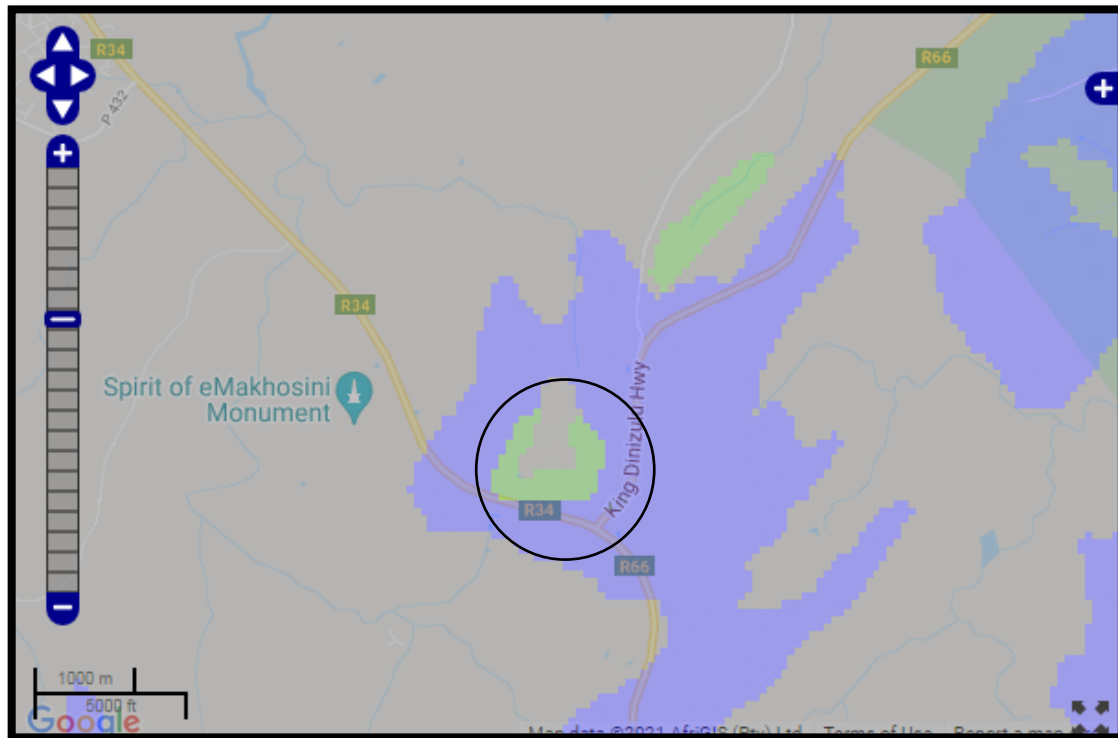
Figure 1. 1:50 000 Topographical Map showing the location of the proposed Site relative.



Figure 2. Google Earth Imagery showing the location of the proposed Site.



Figure 3. Google Earth Imagery showing the location of known archaeological sites (purple markers) in the near vicinity of the project area.



Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 4. Fossil Sensitivity Map of the Project Area. The project area is indicated by the black polygon. The green background colour indicates that a desktop study will be required by a qualified palaeontologist. A protocol of finds will be required for the areas with the blue background colour.



Figure 5. The proposed development plot is undeveloped. It has been overgrazed in parts. woody vegetation occurs in the southern and western parts.



Figure 6. Eroded sections occur in the central and northern portion of the proposed development plot.



Figure 7. *A singular Early Stone Age core was located in the eroded section see below).*



Figure 8. *Close up photograph of Early Stone Age core that was exposed on the surface. Only one tool, that was out of context, was exposed on the surface.*

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