

**PHASE ONE HERITAGE IMPACT ASSESSMENT  
OF THE ABAKHETHINKOSI PRIMARY  
AGRICULTURAL CO-OPERATIVE LTD MINING  
PROJECT SITUATED ON PORTION 2201 OF THE  
FARM UMLAZI LOCATION NO 4676, NEAR  
UMBUMBULO, KZN.**



**ACTIVE HERITAGE cc.**

**For: Impendulo Consulting**

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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 heritage survey of the Abakhethinkosi Co-operative LTD Mining Project near Umbumbulo identified no archaeological sites on the footprint. However, one abandoned homestead is situated within 16 m from the southern boundary of the development plot. It is possible that graves may be associated with this homestead although the ground survey did not find any tangible remains on the surface. Nevertheless, aerial photographs of the development plot that predates 2011 clearly indicates the locality of this homestead. Some community members maintain that old graves do occur on the development plot and it is almost certain that such graves would have been associated with this old homestead. Given the local community sensitivities regarding these potential graves it is proposed that the developers maintain a buffer zone of at least 40m around this old and abandoned homestead. Graves, as indicated by the relevant community members, must also be fenced-in and they should not be disturbed by the proposed mining activities. Alternatively, should the local community not be happy with this arrangement then the developer could apply for a phase two heritage impact assessment. As per SAHRA and Amafa regulations this second phase should include an in-depth and thorough community consultation process. The possibility of a grave exhumation and reburial must be negotiated with the relevant community representatives. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains as well as graves should cease immediately, pending evaluation by the provincial heritage agency. It is important to note that all graves in KwaZulu-Natal, including those younger than 60 years, are protected by provincial heritage legislation.

## 1 BACKGROUND INFORMATION ON THE PROJECT

**Table 1. Background information**

Consultant:	Frans Prins (Active Heritage cc) for Impendulo Consulting
Type of development:	Open Cast Mining Project.
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a 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 KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

### 1.1. Details of the area surveyed:

The study area is located approximately 10.5 km to the south of the village of Umbumbulo and approximately 2.5 km to the west of the R603. The proposed development plot covers an area of approximately 310m x 160m (Fig 1). It is presently covered by dense woody vegetation, in most parts, and some open areas containing grass (Figs 5 & 6). The study area can be approached from the R 603. The GPS coordinates for the centre of the proposed mining development is as follows:

30°03' 26.65" S 30°47' 26.56" E

## **BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA**

The Amanzimtoti and Umbumbulo areas, including adjacent areas of the greater Ethekewini Metropolitan area to its immediate north, has been relatively well surveyed for archaeological heritage sites by the KwaZulu-Natal Museum and subsequently by private heritage consultants in the last few years. Prior to 1950, the archaeological site distribution of the area was poorly known.

The available evidence, as captured in the Amafa and KwaZulu-Natal Museum heritage site inventories, indicates that the area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. These range from Early Stone Age, Middle Stone Age, and Later Stone Age to Early Iron Age, Middle Iron Age, and Later Iron Age sites. Two notable Middle Stone Age sites, i.e. Umlatuzana near Marianhill and Segubudu near Stanger have been excavated in the last two decades and yielded impressive archaeological stratigraphies relating to the period associated with the origins of anatomically modern people. The Umhlatuzana shelter is situated approximately 35km to the north of the study area. Apart from an impressive stone tool assemblage covering both Later and Middle Stone Age periods it has also yielded faunal remains of large mammals that became extinct during the early Holocene such as the giant buffalo (*Pelarovis* sp). Also notable is the Shongweni Later Stone Age shelter which was excavated in the 1970's by Dr Oliver Davies. Shongweni is situated approximately 20 km to the north of the study area in the Umlazi River Valley. This shelter yielded some of the earliest remains of domesticated cereals in South Africa. The same site also yielded some of the only San rock art in the greater Durban area (Mazel 1989; Mitchell 2002).

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 majority of these sites occur inland along the major river valleys of KwaZulu-Natal below the 1000m contour (Maggs 1989:31; Huffman 2007:325-462). Various sites of this period have been recorded along the Umgeni River to the north of the study area, especially in the area close to Inanda Dam.

Some of the shell middens recorded along the coastline of KwaZulu-Natal belongs to the very first Nguni-speaking agropastoralists who settled in the province. These sites have been dated to approximately 1200 years ago. In addition, sites belonging to the immediate ancestors of the present Zulu-speaking communities in the area have been located in various locations in the greater Durban area. A large percentage of more recently recorded sites occur along the dune cordon and slightly inland in the form of shell middens which were mostly created by Iron Age shellfish gatherers although some of the stratigraphic layers may extend back to Later Stone Age periods (Anderson pers.com). Shell middens with both later Stone Age and Iron Age cultural material occur near the mouth of the Umlazi River approximately 20km from the study area.

Various colonial era and historical period sites occur in the greater Durban and Amanzimtoti areas. These date from about 1840 and are usually associated with the first European settlers in the area. These are older than 60 years and are therefore also protected by heritage legislation (Derwent 2006).

## **2 BACKGROUND INFORMATION OF THE SURVEY**

### **2.1 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 Amanzimtoti and Umbumbuloareas was also consulted. Aerial photographs

covering the area was scrutinised for potential Iron Age and historical period structures and grave sites.

A ground survey, following standard and accepted archaeological procedures, was conducted. Particular attention was focused on the occurrence of potential grave sites and other heritage resources on the footprint.

## **2.2 Restrictions encountered during the survey**

### **2.2.1 Visibility**

Visibility was compromised in some areas by dense vegetation cover.

### **2.2.2 Disturbance**

No disturbance of any potential heritage features was noted.

## **2.3 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.

## **3 DESCRIPTION OF SITES AND MATERIAL OBSERVED**

### **3.1 Locational data**

Province: KwaZulu-Natal

Towns: Umbumbulo and Amanzimtoti

### **3.2 Description of the general area surveyed**

#### **3.2.1 Background**

The topography of the study area is principally defined by the Nungwane River Valley. The terrain is steeply undulating with the steep slopes of valleys and ridges dropping down into the valley. The study area is located in the Indian Ocean Coastal Belt (KwaZulu-Natal Coastal Belt)

biomes of South Africa (Mucina & Rutherford, 2006). Land use and land cover consists of rural homesteads and associated small scale subsistence farming activities. All the existing homesteads adjacent to the proposed development plot appear to be relatively recent with none older than 60 years (Fig 8). The footprint is covered by dense indigenous bush on the high altitudes and the flanks of the Nungwane River Valley (Figs 5 & 6). Some of the lower altitude area adjacent to the river has been cleared of bush in the past and is presently covered by grass. Old footpath also run through the proposed development plot but it is overgrown in many areas.

No archaeological sites or features occur on the footprint. A living heritage site occurs to the south of the proposed mining development. However, this prominent hill that is used for pilgrimage by traditional healers, is not threatened by the proposed mining developments on the footprint. Particular care was taken to locate graves on the footprint as local community members claim that such may occur in the close vicinity of the mining operations (see below).

### **3.2.2 Potential Grave Site**

The consultant could not find any tangible evidence for graves on the footprint. It is also important to note that dense vegetation cover compromised site visibility (Fig 7). This does not mean that there are no graves on the footprint but that the graves, if they are indeed present, are “invisible” using conventional survey techniques. A survey of aerial photographs indicate the presence of a singular rondavel-style hut in the extreme south eastern section of the footprint on photographs predating 2007 (Figs 2-4). This rondavel which, is situated 16m from the border of the development plot, is indicative of a rural homestead (umuzi). There is a high probability that it is associated with nearby graves. The GPS co-ordinates for this homestead are:

**Homestead 1:** S 30° 3' 11.02" E 30° 47' 4.77"

A second homestead is visible on aerial photographs predating 2007 (Figs 2 - 4). This homestead is situated approximately 40m outside of the footprint. It is also likely that graves may be associated with this homestead. The GPS co-ordinates for this homestead are:

**Homestead 2:** S 30° 3' 14.61" E 30° 47' 5.46"



### 3.2.3 Mitigation

No tangible evidence for graves are evident on the footprint. However, there is a possibility that graves may occur in association with two homesteads that used to occur on the extreme south eastern section of the proposed mining plot. It is therefore suggested that the developers maintain a buffer zone of at least 40m around these homesteads. No alteration or disturbance of this area may occur without local community consent. In the advent that the community indicates the presence of the associated graves then it is advisable that the developer erect a sturdy fence, with a radius of at least 30m, around the actual grave sites.

Should this measure not be acceptable then the developer may ask for a phase two heritage impact assessment of the potential grave site area. This second phase heritage impact assessment will include a permit application from Amafa in order to sunk test pits in the area indicated by community members as potential grave sites. However, it must be emphasised that this second option is the least favourable option and that it will only be accepted by Amafa, the provincial heritage agency, if it is accompanied by a thorough community consultation process (Appendix 1).

## 4 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

### 4.1 Field Rating

Not applicable as no heritage sites are known to occur on the footprint. However, should graves occur on the property then they would be rated as locally significant (Table 3).

**Table3. 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	The site should be retained as a

	significance locally	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

## 5 RECOMMENDATIONS

As there is no tangible evidence for the presence of any heritage sites or graves on the proposed development plot there is no archaeological reason why the proposed mining development may not take place as planned.

However, the local community has indicated that some graves may indeed be present on the proposed development plot. Given these community sentiments a different approach is advocated. These graves, if indeed present, are “invisible” from the surface and their location can only be indicated by these knowledgeable community members. It is highly likely that the potential location of these graves are situated in the near environs of two old homesteads that formerly occurred near the south eastern boundary of the development plot. It is therefore suggested that the developers strictly maintain a buffer of at least 40m around these old homesteads. No mining or other developments are allowed within the buffer zones.

Should these actions not be acceptable to the local community then the developers may initiate a second phase heritage impact assessment. This phase should entail an in-depth community consultation process as well as a permit application from Amafa in order to sink potential test pits and even the relocation of graves in areas as indicated by the local community. It is also important to take note of the KwaZulu-Natal Heritage Act that requires that any exposing of

graves and archaeological and historical residues should cease immediately pending an evaluation by the heritage authorities.

6 MAPSAND FIGURES

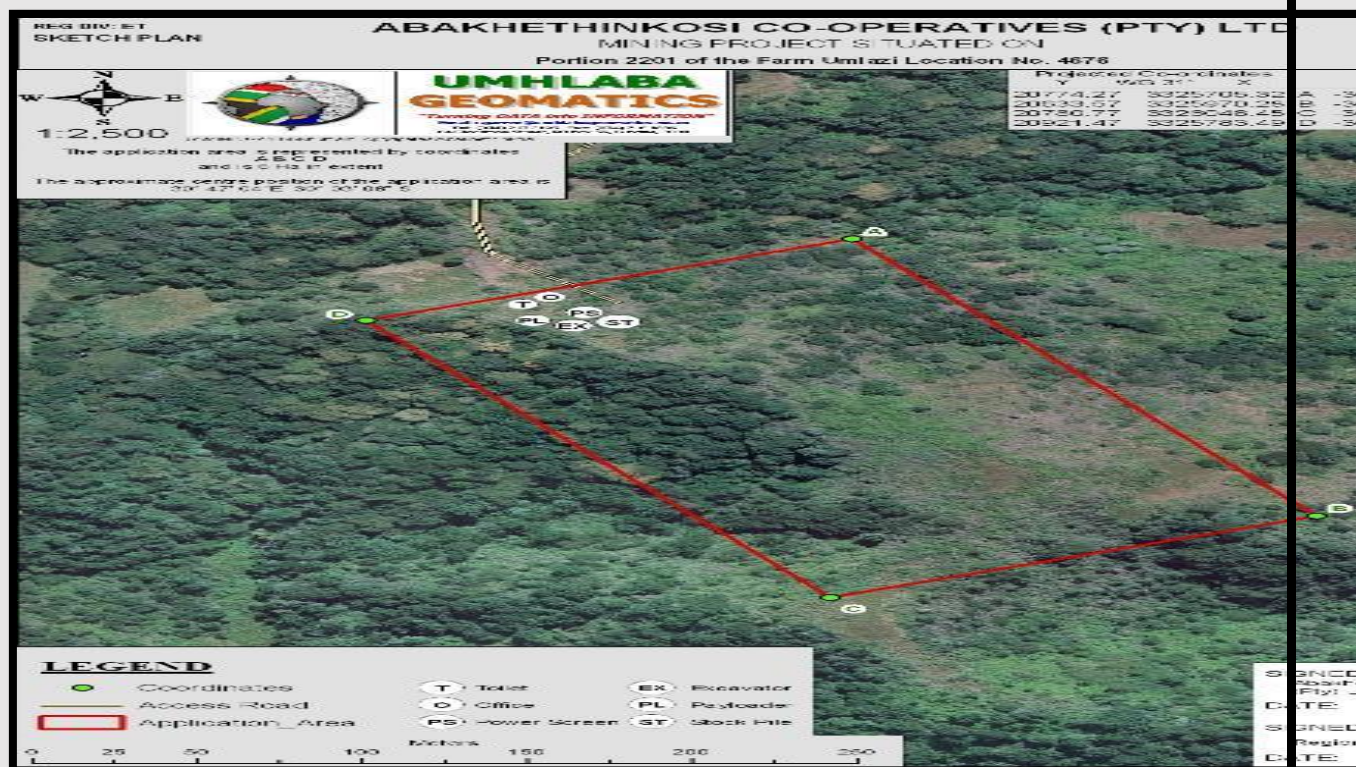
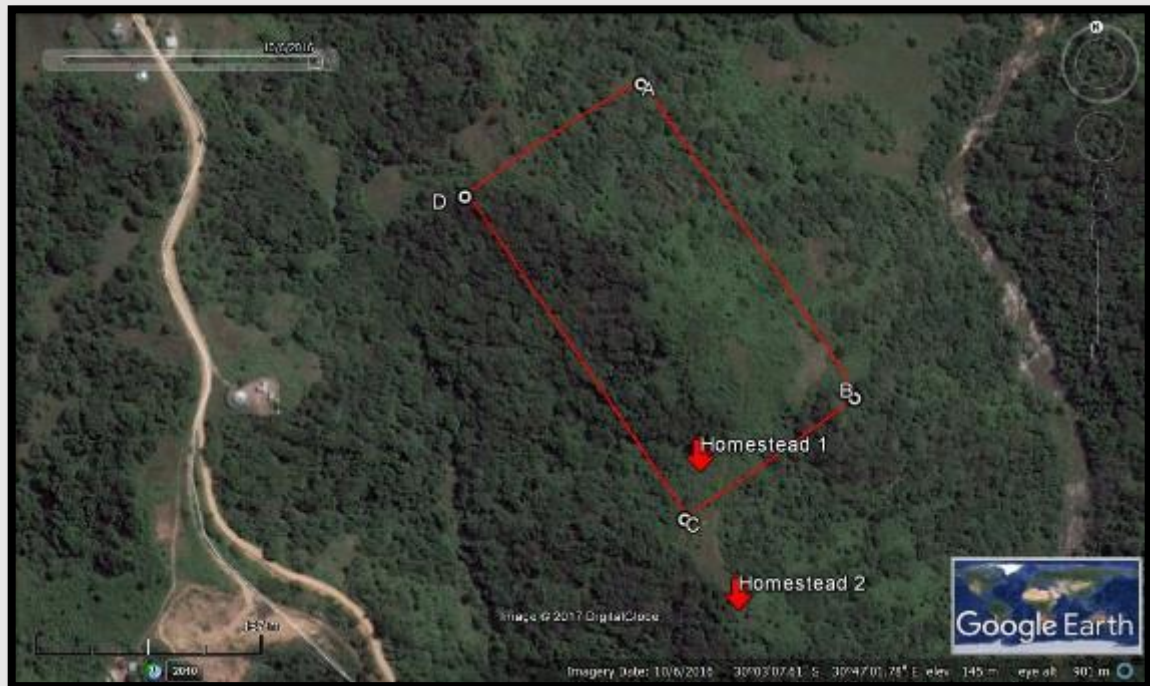
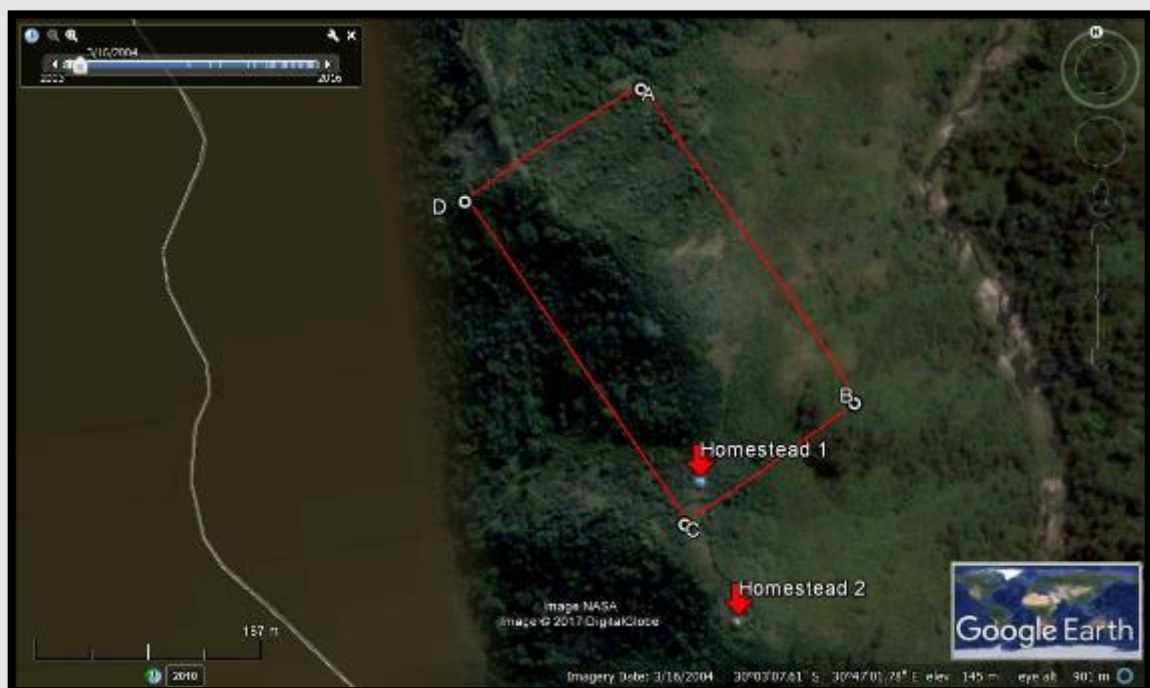


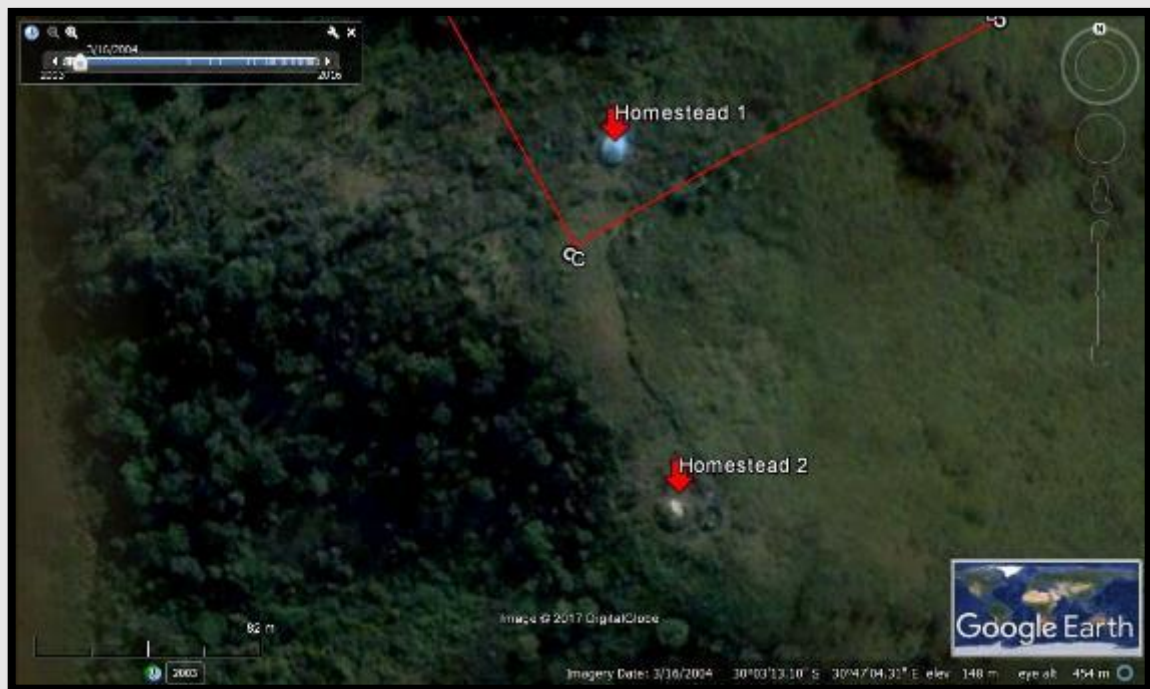
Figure 1. Map showing the location of the proposed mining site near Umbumbulo.



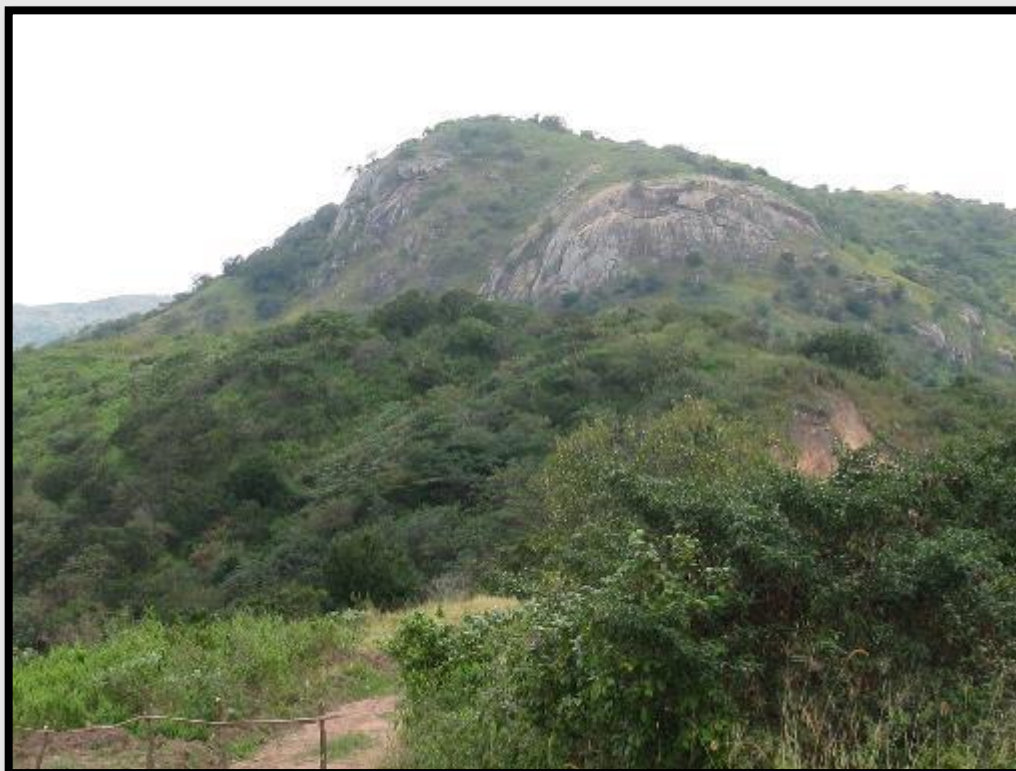
**Figure 2. Google Earth Imagery showing the location of two old homesteads at the south eastern boundary of the proposed mining plot (2010 imagery).**



**Figure 3. Google Earth Imagery showing the location of the two homesteads at the south eastern boundary of the proposed development plot (2003imagery).**



**Figure 4. Google Earth Imagery close-up showing the location of the two homesteads near the south eastern boundary of the proposed mining plot (Imagery 2003).**



**Figure 5. View over the proposed mining plot.**



***Figure 6. No heritage sites and graves are visible on the steep river banks leading to the Nungwane River. Dense vegetation also compromised site visibility.***



***Figure 7. Dense vegetation in the environs of the south eastern boundary of the development plot. No graves are visible on the surface. However aerial photographs indicate the presence of homesteads in this area in 2004.***



***Figure 8. Existing homesteads on the edges of the proposed mining plot. These homesteads are relatively recent and younger than 60 years old.***



## 7 REFERENCES

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## **APPENDIX 1 RELOCATION OF GRAVES**

Burial grounds and graves older than 60 years are dealt with in Article 36 of the NHR Act, no 25 of 1999. The Human Tissues Act (65 of 1983) protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and reburial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.
- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.
- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave