

#### Archaetnos Culture & Cultural Resource Consultants BK 98 09854/23

# A REPORT ON A DETAILED BASELINE CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED ELOFF MINING DEVELOPMENT IN THE MPUMALANGA PROVINCE

For:

GCS PO Box 2597 Rivonia 2128

REPORT: AE1168

GCS project no.: 11-091

By:

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The South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report and clients are advised not to proceed with any action before receiving these. It is the responsibility of the client to submit the report to the relevant heritage authority.

#### **SUMMARY**

Archaetnos cc was requested by GCS to conduct a detailed baseline cultural heritage impact assessment (HIA) for the proposed Eloff Mining Company Project. This entails various farms on the Mpumalanga Higveld, close to the town of Eloff in the Mpumalanga Province.

The client indicated the areas where the proposed development is to take place and the survey was confined to this area. A survey of the available literature was also undertaken in order to obtain background information regarding the area.

The area where the development is planned is almost totally disturbed by agriculture, but certain areas with natural vegetation still exist. Twenty-four sites of cultural heritage significance were located. These are discussed and mitigation measures are proposed.

As the mine is still in a planning phase it is not known exactly what the direct impact on these cultural resources would be. However it creates a valuable document for planning purposes. Once the proposed layout of infrastructure is known, it should be used to determine the impact after which final recommendations for mitigation can be made.

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#### 1. INTRODUCTION

Archaetnos cc was appointed by GCS to conduct a detailed baseline heritage study for the Eloff Mining Company Project. The site is located to the south of the town of Eloff and to the south-west of the town of Delmas on the Highveld of the Mpumalanga Province (Figure 1-2).

Three farms are affected by the development, namely the following: Droogefontein 242 IR, Strydpan 243 IR and Stompiesfontein 273 IR (Figure 3). The client indicated the area where the proposed development is to take place, and the survey was confined to this area.



Figure 1 Location of Eloff, Mpumalanga.



Figure 2 Closer view of the surveyed area showing disturbance by agricultural activities.

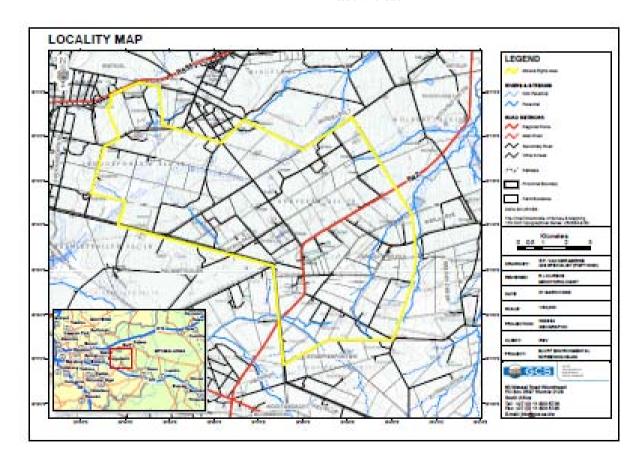


Figure 3 Map indicating the proposed mining area in yellow.

#### 2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

- 1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
- 2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
- 3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
- 4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.
- 5. Review applicable legislative requirements.
- 6. Do sensitivity ratings for the identified sites.

#### 3. METHODOLOGY

#### **3.1** Survey of literature

A survey of the available literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

#### **3.2** Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed.

The survey was undertaken on foot and via an off-road vehicle.

#### **3.3** Oral histories

People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

#### **3.4** Documentation

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual

localities were determined by means of a Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

#### 3.5 Evaluation of Heritage sites

The evaluation of heritage sites is done by using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

#### 4. CONDITIONS AND ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

- 1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
- 2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
- 3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix B).
- 4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
- 5. All recommendations are made with full cognizance of the relevant legislation.

- 6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
- 7. It should be noted that in this particular case certain areas contained long grass, other inaccessible wetlands and dense plantations which were impossible to penetrate and therefore influenced archaeological visibility.
- 8. Although care was taken to give a comprehensive background on the history of the area, it has to be stated that it is impossible to give a complete indication on human activities of the past as sources are not always readily available. The information given in the report should however give a fair reflection of the past.

## 5. DETAILS AND EXPERTISE OF THE PERSON WHO PREPARED THE REPORT

Dr. Anton Carl van Vollenhoven:

#### Tertiary education

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

#### Relevant positions held

- 1988-1991: Fort Klapperkop Military Museum Researcher
- 1991-1999: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- 1999-2002: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- 2002-2007: City of Tswhane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- August 2007 present Managing Director for Archaetnos Archaeologists.
- 1988-2003: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.

#### Experience and professional affiliations

• Has published 68 articles in scientific and popular journals on archaeology and

history.

- Has been the author and co-author of over 300 unpublished reports on cultural resources surveys and archaeological work.
- Has published a book on the Military Fortifications of Pretoria.
- Has delivered more than 40 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 2006.
- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Gauteng PHRA's HIA adjudication committee.

#### 6. DECLARATION OF INDEPENDENCE

A fillen have

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.



#### 7. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

#### 7.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites or scientific or technological value.

The national estate (see Appendix D) includes the following:

a. Places, buildings, structures and equipment of cultural significance

Date: 21 July 2011

- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

#### Structures

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

#### Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

#### Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act** (**Act 65 of 1983 as amended**).

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

#### 7.2 The National Environmental Management Act

This act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

#### 8. LOCATION AND DESCRIPTION OF THE AREA

As indicated above, the proposed mining is planned on three farms being Droogefontein 242 IR, Strydpan 243 IR and Stompiesfontein 273 IR. This is to the south of the town of Eloff and to the south-west of the town of Delmas in the Mpumalanga Province.

The area is mostly disturbed by agricultural fields, mostly mealies and soya beans. During the time of the survey these were mostly unplanted (Figure 4-5) making archaeological visibility quite good. However certain areas consisted of wattle and eucalyptus plantations, old fields and wetland areas with long grass (Figure 6-7), the latter being the only remains of the natural vegetation. Here the archaeological visibility was quite difficult.

The topography of the surveyed area is reasonably flat with some rolling hills. A number of streams drains the area with the accordingly drop in topography along these. Various pans are scattered around the area indicating an abundance of water.

Remains of many structures relating to farming activities are found throughout the area. This includes ruins of houses and other buildings, fences and metal and concrete junk. None of these have heritage significance and therefore it is excluded from the discussion below.



Figure 4 Ploughed fields in the surveyed area.



Figure 5 General view of the surveyed area.



Figure 6 Old field in the surveyed area.



Figure 7 Long grass close to one of the wetland areas.

#### 9. DISCUSSION

During the survey twenty-four sites of cultural heritage significance were located. It needs however to be considered that even more sites may become known later during construction work and that those need to be dealt with in accordance with the legislation discussed above.

In order to enable the reader to better understand the sites found as well as possible archaeological and cultural features that may be unearthed during construction activities, it is necessary to give a background regarding the different phases of human history.

#### 7.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

```
Early Stone Age (ESA) 2 million – 150 000 years ago Middle Stone Age (MSA) 150 000 – 30 000 years ago Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.
```

The closest Stone Age occurrence found to the Delmas area is the Late Stone Age site at Fort Troje, close to Cullinan (Bergh 1999: 4). This probably only indicates a lack of research as the area definitely is suitable for human occupation.

However, no natural shelters were seen during the survey and therefore it is possible that these people did not stay here for long times. The close vicinity of water sources and ample grazing would have made it a prime spot for hunting and obtaining water during the past. Therefore one may assume that Stone Age people probably would have moved through the area.

#### 7.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

```
Early Iron Age (EIA) 200 – 1000 A.D.
Late Iron Age (LIA) 1000 – 1850 A.D.
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Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

```
Early Iron Age (EIA) 250 – 900 A.D.
Middle Iron Age (MIA) 900 – 1300 A.D.
Late Iron Age (LIA) 1300 – 1840 A.D.
```

Bergh (1999: 7) does indicate that Late Iron Age sites have been identified in the Delmas area, but gives no additional detail. During the Difaquane (1832) the Zulu moved through this area in order to attack the Ndebele (Bergh 1999: 11). This indicates that Iron Age people

probably utilized this environment in the past.

However, during the survey no such sites were identified. The good grazing and access water in the area would have provided a good environment for Iron Age people although building

material seem to be reasonably scarce.

7.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the

moving into the area of people that were able to read and write.

The first early traveler who visited this area was Robert Scoon who passed through during 1836. In 1847 Dr David Livingstone also visited the area during his travels. The parties of

the Voortrekkers Louis Tregardt and Hans van Rensburg also moved through here during 1836 (Bergh 1999: 13-14). White farmers only settled in the study area between 1841 and

1850 (Bergh 1999: 15).

All the sites identified during the survey date to the Historical Age. These are discussed

below.

7.4 Sites identified during the survey

Site 1

This is a farm yard consisting of the ruins of various buildings (Figure 8). The buildings are fairly recent and probably not older than 60 years. It also is not very unique and therefore the

site is regarded as having **low** cultural significance.

GPS: 26°13.870'S

28°35.832'E

The site may be demolished during mining activities on site. This report is seen as ample

mitigation in this regard.

Sensitivity rating:

2 - suitable

17



Figure 8 Farm buildings at site no 1.

#### Site 2

This is a grave yard consisting of at least 80 graves (Figure 9-11). Various types of graves are evident – stone dressing, cement dressing with cement headstones, granite headstones and borders etc.

The oldest date identified is 1939, but the graves mostly are not marked and the dates of death are therefore unknown. Some of the surnames identified include Thamane, Simelane and Mthombeni.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°11.850'S 28°34.442'E



Figure 9 Graves at site no.2.



Figure 10 Other graves at site no. 2.



Figure 11 These sisal plants at site no. 2 are also concealing graves. Sisal plants are frequently planted at grave yards.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

#### Site 3

This is a grave yard consisting of at least 100 graves, found in a wetland area. The graves seem to be fairly recent – one of the dates identified is 1995 (Figure 12). Various types of graves are evident – cement dressing with cement headstones, granite headstones and borders and some with metal barriers etc.

Due to the water level it was not possible to see whether there are alder graves or once with an unknown date of death. This is however most likely. Some of the surnames identified include Mabena and Tsagane.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°12.211'S 28°35.469'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as

cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive



Figure 12 Graves at site no. 3.

This is a grave yard consisting of at least 4 graves (Figure 13). One has a granite headstone, but the other three are only heaps of soil indicating that the graves may be fairly recent.

The only grave with a headstone have a date of 2005. The surname on this grave is Mahlangu.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°12.193'S 28°35.587'E



Figure 13 Graves at site no. 4.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

#### Site 5

This is a grave yard consisting of at least 12 graves found in reasonably long grass (Figure 14). Various types of graves are evident – stone dressing, cement dressing with cement headstones, cement crosses, brick dressings etc.

The oldest date identified is 1958, but some graves are not marked and the dates of death are therefore unknown. Some of the surnames identified include Sibanye and Mdau.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.200'S 28°33.839'E



Figure 14 One of the graves at site no. 5.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

#### Site 6

This is a grave yard consisting of at least 40 graves. Due to the dense vegetation, no photograph could be taken. Various types of graves are evident – cement dressing with cement headstones, brick dressings etc.

The oldest date identified is 1963, but the graves mostly are not marked and the dates of death are therefore unknown. One of the surnames identified is Ngcolowane.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.466'S 28°33.912'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

#### Site 7

This is a grave yard consisting of at least 32 graves (Figure 15). Various types of graves are evident – stone dressing, cement dressing with cement headstones, brick dressings etc.

The oldest date identified is 1973, but the graves mostly are not marked and the dates of death are therefore unknown. One of the surnames identified is Bhago.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°12.999'S 28°34.442'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as

cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive



Figure 15 Graves at site no. 7.

#### Site 8

This is a farm yard. But the buildings are completely in ruins. However there is a heap of stones which may be a grave or just part of an old garden (Figure 16). If it is the latter the site is of no real importance and will receive a rating of **low** cultural significance. This report will then be seen as ample mitigation. (This seems the most likely.)

However, if it is a grave it will be given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.569'S 28°36.989'E



Figure 16 Farm yard numbered site no. 8.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 2 – suitable if there are not graves

8 – highly sensitive if there are graves

#### Site 9

This is a farm yard with a house that is most likely older than 60 years and still in a good condition (Figure 17). T most likely dates to the 1940's, but it may not be very unique. It therefore receives a rating of **medium** cultural significance. The house should be preserved if at all possible.



Figure 17 Farm house at site no. 9.

GPS: 26°14.238'S 28°36.922'E

Sensitivity rating: 6 – sensitive

#### Site 10

This is a grave yard consisting of 3 graves (Figure 18). Two of these have granite headstones and borders and one a cement headstone.

The oldest date identified is 1919. Two surnames were identified, being Van der Berg and Wentzel. It is close to the remains of what used to be a farm stead.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.326'S 28°37.443'E



Figure 18 The three graves at site no. 10.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should

be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

#### Site 11

This is a grave yard consisting of 2 graves again close to the ruins of what used to be a dwelling (Figure 19). Only two granite headstones are visible. The oldest date identified is 1919 while the other grave has no legible date. The surname identified is Viljoen. It seems as if any other above-ground evidence has been ploughed away. This may indicate that there were more graves here once.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°12.386'S 28°38.741'E



Figure 19 Grave at site no. 11.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA

and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

#### Site 12

This is a single grave, also in a mealie field (Figure 20). Again it seems as if above-ground evidence have been ploughed away, apart from the granite headstone which is still visible. This may indicate that there once were more graves here. The grave belongs to Johanna Mokoena who died in 1977.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°11.931'S 28°39.331'E



Figure 20 Grave at site no. 12.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

#### *Site 13*

This is the ruins of a building, according to the farm owner, an old church (Figure 21-22). The building definitely is older than 60 years, but is in quite a bad state of repair. Some of the walls are still standing and the plaster on the bricks is still visible.

The building probably had an important social role in the community and seems to have quite unique characteristics. Therefore it is given a rating of **medium** cultural significance.

GPS: 26°14.032'S 28°37.578'E



Figure 21 Front view of the ruin of the old church.



Figure 22 Another view on the church.

Should the site be in the way of the mining activities, it must be recorded during a phase 2 investigation. This would include full photographic documentation, drawing of plans and doing archival and historical research. Thereafter it may be demolished. Should it not be in

the way, it would be best to also do this documentation as it will without doubt deteriorate further over time.

Sensitivity rating: 8 – medium sensitive

## *Site 14*

This is a grave yard consisting of at least 30 graves between long grass (Figure 23). Various types of graves are evident – stone dressing and headstones, cement dressing with cement headstones, brick dressing and borders etc.

The oldest date identified is 1980, but the graves mostly are not marked and the dates of death are therefore unknown. Some of the surnames identified include Mabena and Mokoena.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.874'S 28°36.603'E



Figure 23 Graves at site no. 14.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

## *Site 15*

This is a grave yard consisting of at least 13 graves and was found inside of a poplar plantation (Figure 24-25). Various types of graves are evident – cement borders and cement headstones, granite headstones etc. It seems as if these graves were recently restored.

The oldest date identified is 1963, but the graves mostly are not marked and the dates of death are therefore unknown. Some of the surnames identified include Masango and Masuku.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°14.436'S 28°37.536'E

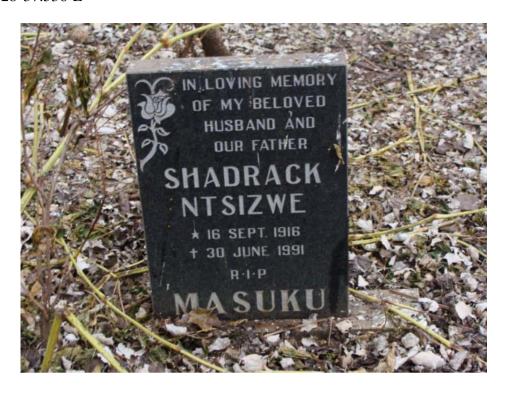


Figure 24 A granite headstone at site no. 15.



Figure 25 Other graves at site no. 15.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

## Site 16

This is a grave yard consisting of at least 12 graves (Figure 26-27). Various types of graves are evident – cement dressing and borders with cement headstones, granite headstones and borders etc.

The oldest date identified is 1971, but the graves mostly are not marked and the dates of death are therefore unknown. One surname identified is Masuku.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°14.744'S 28°37.434'E



Figure 26 Graves at site no. 16.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The

management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.



Figure 27 Another grave at site no. 16.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

# Site 17

This is a grave yard consisting of at least 30 graves (Figure 28). Various types of graves are evident – stone dressing, cement dressing with cement headstones, granite headstones and dressing or borders etc.

The oldest date identified is 1947, but the graves mostly are not marked and the dates of death are therefore unknown. Some of the surnames identified include Ngoma and Mahlangu.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.265'S 28°37.879'E



Figure 28 Graves at site no. 17.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should

be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

#### Site 18

This is a single grave (Figure 29). It has a slate headstone and cement and brick border. The date on the grave is 1959. The surnames identified is Mtshweni.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.385'S 28°37.340'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.



Figure 29 The grave at site no. 18.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

## Site 19

This is a single grave, but it does seem as if there may be more since the area has been ploughed (Figure 30). It has a stone dressing. No date could be identified and the date of death is therefore unknown.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°12.825'S 28°38.322'E



Figure 30 The graves at site no. 19.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

In this particular case one will also have to do some test excavations in order to determine whether there is more graves. This however is standard procedure.

Sensitivity rating: 8 - highly sensitive

#### Site 20

This is a grave yard consisting of at least 18 graves (Figure 31-32). Various types of graves are evident – stone dressing, cement dressing or borders with cement headstones, granite headstones and borders etc.

The oldest date identified is 1984, but the graves mostly are not marked and the dates of death are therefore unknown. Some of the surnames identified include Aron and Mabena.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°14.726'S 28°38.910'E



Figure 31 A graves at site no. 20.



Figure 32 Other graves at site no. 20.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

# Site 21

This is a grave yard consisting of at least 10 graves (Figure 33). Various types of graves are evident – cement borders or dressing with cement headstones, brick borders, granite headstones and borders etc.

The oldest date identified is 1987, but the graves mostly are not marked and the dates of death are therefore unknown. Only one surname was identified, being Mhlanga.

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Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°14.706'S 28°38.926'E



Figure 33 One of the graves at site no. 21.

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 - highly sensitive

## Site 22

This is a grave yard consisting of at least 20 graves (Figure 34-35). Various types of graves are evident – cement borders and dressing with cement headstones, granite headstones and borders etc.

The oldest date identified is 1984, but the graves mostly are not marked and the dates of death are therefore unknown. Some of the surnames identified include Mnisi, Dhladhla, Hlangwane and Mthethwa.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°16.583'S 28°39.587'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

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Figure 34 One of the graves at site no. 22.



Figure 35 Other graves at site no. 22.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for

descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

## Site 23

This is a grave yard consisting of at least 13 graves (Figure 36-37). The graves have either cement or granite headstones and grave dressing. Some of the graves have caved in leaving it in a bad state of repair.

The oldest date identified is 1922. The surnames identified include Viljoen, Le Cordeur, Homann, Stander and Nel.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°15.893'S 28°38.724'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance

thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.



Figure 36 Graves at site no. 23.



Figure 37 Damege to some graves at site no. 23.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive

## Site 24

This is a grave yard consisting of at least 7 graves (Figure 38). All the graves have granite dressings and headstones. The oldest date identified is 1925. The only surname identified is Bennett.

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.

GPS: 26°13.864'S 28°39.719'E

Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities.

The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance

thereof. Such a fence should be erected at least 50 m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.

The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.

Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

Sensitivity rating: 8 – highly sensitive



Figure 38 One of the graves at site no. 24.

#### 10. CONSULTATION PROCESS

During the survey the following farmers in the area were consulted:

- SM van Dyk
- JC du Plessis
- JF du Plessis
- Charles Krugell
- MJ Lourens
- CLC Rossouw
- GP Pendzialek
- FJA Rossouw
- D Retief
- D Likwideer
- D Brough
- J Deysel
- FJA de Lange
- P Blom
- B Parrot
- JH Barnard

## 11. CONCLUSION AND RECOMMENDATIONS

The area where the mine is planned was surveyed successfully. A number of 24 sites were identified (Figure 39). It however needs to be indicated that there may be more, but due to the circumstances described earlier, these may not have been found.

The following is recommended:

- Relating to site number 1 (house ruins), this report is seen as ample mitigation and the site identified may be demolished without a destruction permit due to it being of low cultural significance and less than 60 years of age.
- The same would be applicable to site number 8 (house ruins with possible grave), if it is not a grave (this seems the most likely).
- However, if it is a grave it should be handled similar to all the other grave sites.
- Site number 9 (farm yard with a house that is most likely older than 60 years and still in a good condition) should be preserved if at all possible.
- Should site number 13 (old church ruin) be in the way of the mining activities, it must be recorded during a phase 2 investigation. This would include full photographic documentation, drawing of plans and doing archival and historical research. Thereafter it may be demolished.

• However, should site number 13 not be in the way, it would be best to also do this documentation as it will without doubt deteriorate further over time.

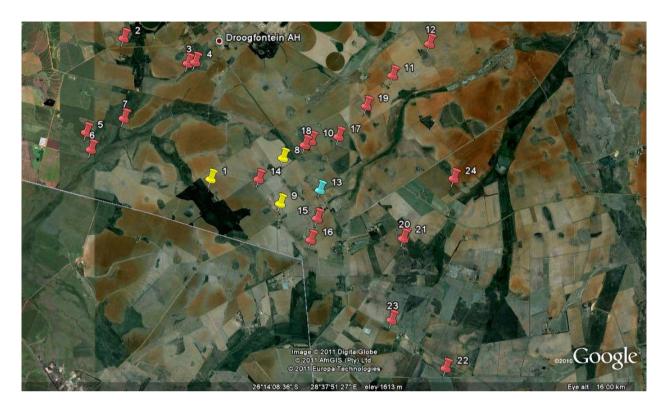


Figure 39 Google image indicating the sites found.

Red – graves

Yellow – house ruins

Blue – church ruin

- All other sites are grave sites (number 2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24). Graves are always given a rating of **high** cultural significance due to it being a sensitive matter.
- Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves.
- Usually there are two options when dealing with graves. As this is a baseline assessment no decision can yet be made and therefore both options are discussed. This can then be used in the planning for the future mining activities. Table 1 can be used to assist in determining the risks involved with both options.
- The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, there always is a secondary impact as descendants may find it difficult to visit the site once mining has commenced. Therefore the site should be fenced in and a management plan should be written for the preservation and maintenance thereof. Such a fence should be erected at least 50

m from the perimeter of the site as blasting closer than that will definitely have a negative impact on the graves.

- The Management Plan would detail aspects such as the fence and site management and maintenance. In addition, the plan would provide details on how it will be possible for descendants that might wish to visit the graves, when access will be granted as the mine is compelled to grant access. The fence and site will need to be managed and maintained. The management plan includes inter alia arrangements for security and safety measures. Other measures would include the preservation and maintenance of the site where aspects such as cleaning and upkeep will be dealt with. Such a plan should be written and then monitored annually by an independent heritage specialist.
- The plan will have to be approved by the Burial Grounds and Graves Unit (BGG) of the South African Heritage Resources Agency (SAHRA). SAHRA has specific guidelines for management plans and these will have to be followed.
- The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Such a process has to be motivated to SAHRA and permits needs to be applied for. It is a lengthy process and includes social consultation in accordance with legislation in order to obtain permission from descendants or at least proof that a concerted effort has been made to do such consultation.
- Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.
- It is standard procedure in such cases to also do some test excavations as there usually are more graves than what can be seen from grave dressings and headstones.
- Due to constraints indicated in this report it is possible that all heritage sites may not have been identified. Such sites found later on should be handled in accordance with this report which inter alia includes summoning an archaeologist to site to assess these.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. This includes graves. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- It is difficult to do a sensitivity assessment of the area as heritage sites usually only covers a small amount of land. One should be on the lookout for clumps of trees or grass within ploughed fields which may indicate graves or ruins. In this area it seems as if graves were particularly found in plantations, close to houses or ruins and in wetland areas and therefore these areas will also have a high sensitivity rating. The problem is that a few graves were found inside of ploughed fields without any vegetation around it this basically means that one can found graves anywhere. The

bottom line is that the nature of heritage sites is such that predicting its locations is almost impossible.

• Once the mine plan have been finalized the information obtained this far, as well as possible new information, should be re-evaluated and more precise recommendations should be made.

Table 1 Risk management relating to graves

| Risk factor    | Fencing of site                       | <b>Exhumation and Relocation of graves</b>  |
|----------------|---------------------------------------|---|
| Access         | Descendents will need undisturbed     | Descendants will have access to new         |
|                | access to graves (only if descendants | grave yard (only if descendants are         |
|                | are identified)                       | identified)                                 |
| Compensation   | Not needed                            | Descendants may want compensation,          |
|                |                                       | but it is advised that this be limited to a |
|                |                                       | night vigil (only if descendants are        |
|                |                                       | identified)                                 |
| Approval from  | Not needed                            | Needed and without it no relocation will    |
| descendants    |                                       | be allowed (only if descendants are         |
|                |                                       | identified)                                 |
| Security risk  | Yes, as descendants must get access   | No, as access would be at new               |
|                | (only if descendants are identified)  | cemetery*                                   |
| Management     | Yes, a sustainable management plan    | No, as this will form part of an existing   |
| of sites       | will be needed                        | cemetery *                                  |
| Monitoring of  | Yes, an independent heritage expert   | No, as it will form part of an existing     |
| sites          | to monitor management plan and        | cemetery*                                   |
|                | maintenance once a year               |   |
| Upgrade and    | Yes, site should be left by developer | No, as this would be dealt with as part     |
| cleaning       | in a better state that before and it  | of the existing cemetery*                   |
|                | should be kept neat                   |   |
| Land claims    | Yes, but only in case of a forced     | Yes, but only in case of a forced           |
|                | removal (only if descendants are      | removal (only if descendants are            |
|                | identified)                           | identified)                                 |
| Finances       | Less expensive                        | More expensive                              |
| Time frames    | Less time consuming                   | More time consuming                         |
| Responsibility | Permanent liability and               | The mine's responsibility and liability     |
|                | responsibility for the mine           | ends after the exhumation and               |
|                |                                       | relocation process*                         |

<sup>\*</sup>The mine may decide to start a new cemetery on their premises for this purpose. In such a case they will save the cost of grave plots etc. However the graves will then be a site they need to manage permanently meaning that it will need to be fenced and a management plan needs to be compiled and implemented.

#### 12. REFERENCES

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

- Coertze, P.J. & Coertze, R.D. 1996. Verklarende vakwoordeboek vir Antropologie en Argeologie. Pretoria: R.D. Coertze.
- Huffman, T.N. 2007. **Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa.** Scotsville: University of KwaZulu-Natal Press.
- Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.
- Korsman, S.A. & Meyer, A. 1999. Die Steentydperk en rotskuns. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.
- Republic of South Africa. 1983. **Human Tissue Act** (Act 65 of 1983). The Government Printer: Pretoria.
- Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.
- Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.
- Republic of South Africa. 1980. **Ordinance on Excavations** (Ordinance no. 12 of 1980). The Government Printer: Pretoria.
- Van der Ryst, M.M. & Meyer, A. 1999. Die Ystertydperk. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

## APPENDIX A

## **Definition of terms:**

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

#### APPENDIX B

# **Definition of significance:**

Historic value: Important in the community or pattern of history or has an association

with the life or work of a person, group or organization of importance in

history.

Aestetic value: Important in exhibiting particular aesthetic characteristics valued by a

community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of

natural or cultural history or is important in demonstrating a high degree

of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or

cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or

cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular

class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

## APPENDIX C

# **Cultural significance:**

- Low Any site, structure or feature being regarded of not important due to a number of factors, such as date, condition and frequency. Also a cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium Any site, structure or feature being regarded less important due to a number of factors, such as date, condition and frequency. Also any important object found out of context.
- High Any site, structure or feature regarded as important because of any of various factors such as age, condition or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

# Heritage significance:

- Grade I Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III Other heritage resources of local importance and therefore worthy of conservation

## APPENDIX D

# **Protection of heritage resources:**

# - Formal protection

National heritage sites and Provincial heritage sites – grade I and II

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

# - General protection

Objects protected by the laws of foreign states Structures – older than 60 years Archaeology, palaeontology and meteorites Burial grounds and graves Public monuments and memorials