



Archaetnos Culture & Cultural
Resource Consultants
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**A REPORT ON THE ASSESSMENT OF A POSSIBLE GRAVE AT THE BLACK
ROCK MINING OPERATIONS, NORTHERN CAPE PROVINCE**

For:

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REPORT: AE01915V

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SUMMARY

Archaetnos cc was appointed by EScience Associates (Pty) Ltd to compile a Cultural Heritage Management Plan for the old mine workings at the Black Rock Mining Operations (BRMO). The plan is to be utilised as part of the motivation for the site to be declared as a heritage site.

During a field visit a possible grave was located in the area. The aim of this report is to assess the possible grave, to advise and make recommendations in this regard.

BRMO is situated in the Northern Cape Province approximately 80 km north-west of the town of Kuruman and 12 kilometres north-west of Hotazel. BRMO falls within the jurisdiction of the John Taolo Gaetsewe District Municipality.

There are two options when dealing with graves. Both options are discussed in the report. A risk assessment is done, in which the two options are compared to one another.

In conclusion it is clear that there is no easy solution in a case where there is uncertainty about whether a possible grave is indeed a grave. **It is however stated that from the assessment the reasoned opinion is that this is not a grave.**

Since there still is uncertainty and in order to minimize risk, the following is recommended:

- That the grave and are within the wire fence be scanned via GPRS to provide more clarity.
- The result from the GPRS can be used to interpret the site and determine a way forward. This could include the inclusion of the site in a cultural heritage management plan, should the conclusion be that it indeed is a grave site. If not, the site would not need to be preserved.
- Since there is uncertainty about the number of graves in the nearby known mine workers graveyard, it may be considered to also scan this site to determine possible additional graves. This is not a legal necessity but would make the contracting of a GPRS machine more cost-effective.

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1. INTRODUCTION

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BRMO is situated in the Northern Cape Province approximately 80 km north-west of the town of Kuruman and 12 kilometres north-west of Hotazel. BRMO falls within the jurisdiction of the John Taolo Gaetsewe District Municipality (Figure 1-3).

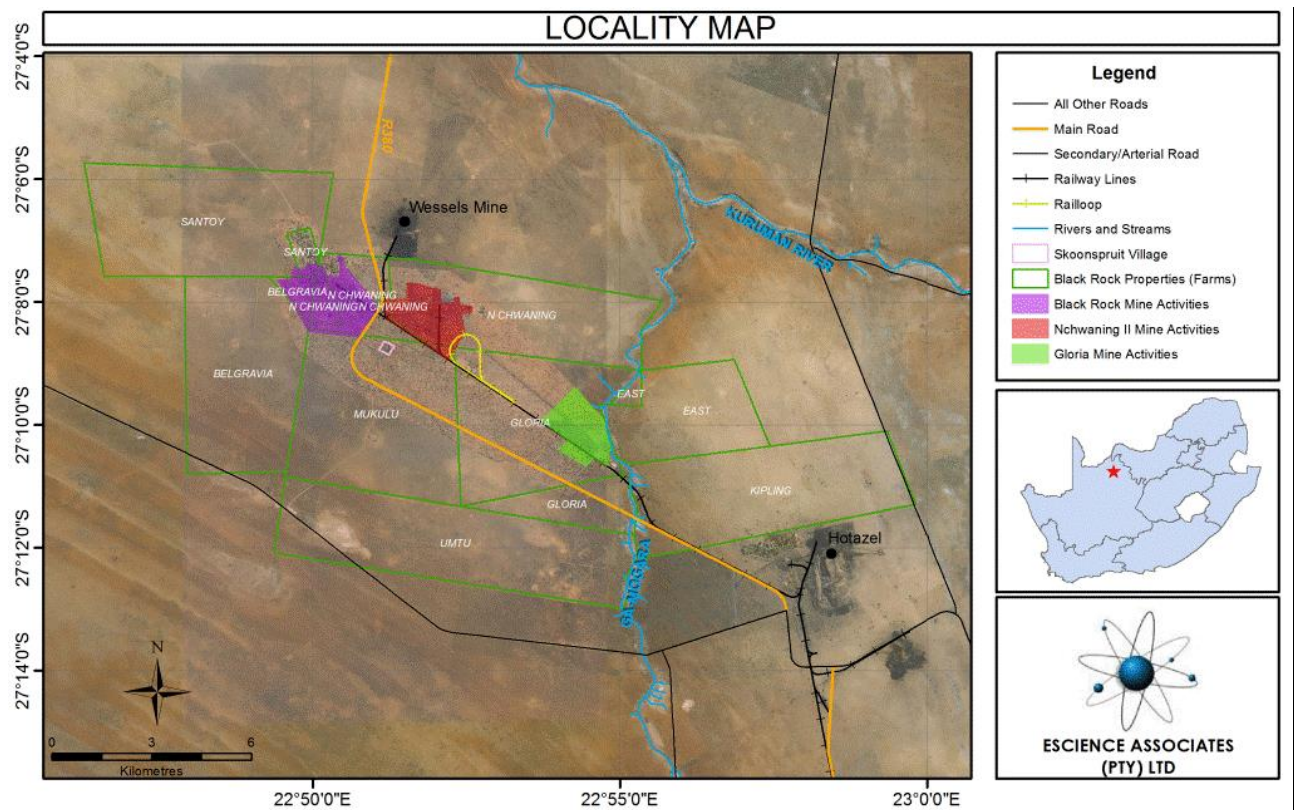


Figure 1: Location of the Black Rock Mine in the Northern Cape.

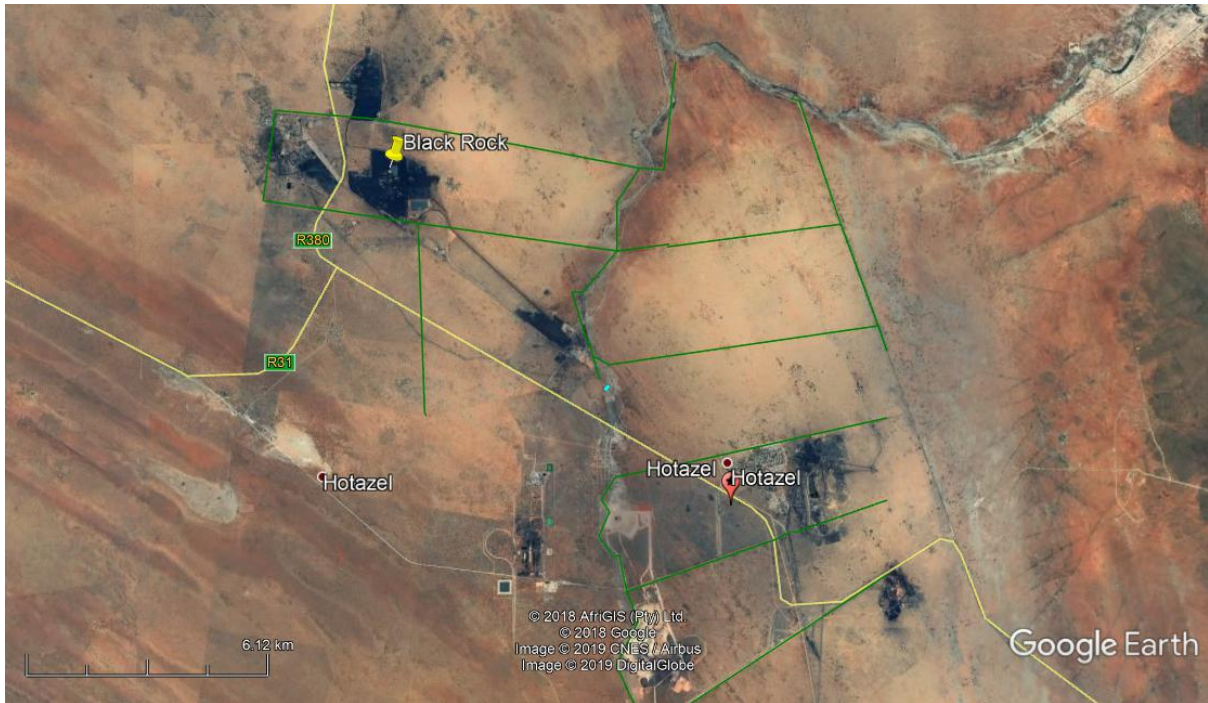


Figure 2: Location of Black Rock in relation to Hotazel.

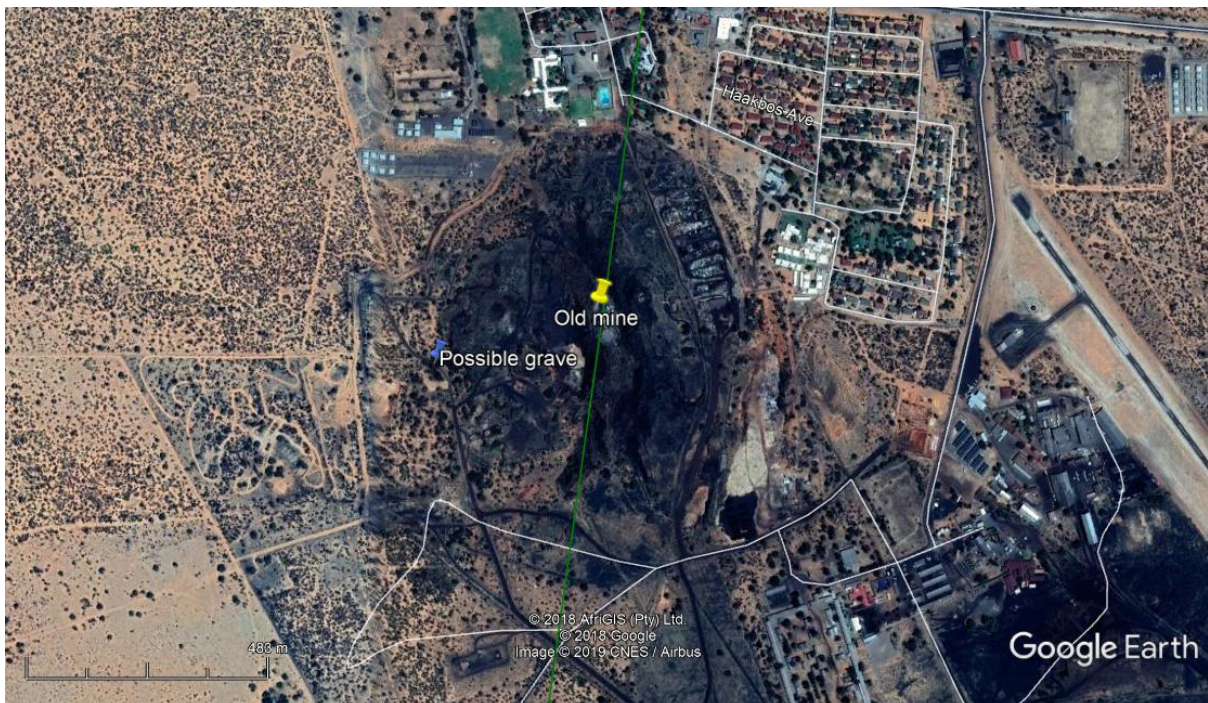


Figure 3: Location of the possible grave site within the old Black Rock Mining Operations.

2. TERMS OF REFERENCE

The Terms of Reference for the study were as follows:

1. Assessing the possible grave site
2. Determining the number of possible graves
3. Establishing the perimeters of the site
4. Doing a risk assessment
5. Making recommendations for the mitigation/ preservation of the site

3. CONDITIONS & ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the study:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity. These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development (Appendix A). **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 (Appendix B). **Graves are always given a high cultural significance as it is an extremely emotional issue.**
3. 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. **This includes graves.**
4. 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 C).
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that this was not a Heritage Impact Assessment (HIA), but an assessment of a specific site already known to the property owner.

4. 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).

4.1 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 of scientific or technological value.

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

- a. Places, buildings, structures and equipment of cultural significance
- 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 paleontological importance
- g. Graves and burial grounds**
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, 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. The different phases during the HIA process are described in Appendix E. 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 000m² or involve three or more existing erven or subdivisions thereof

- d. Re-zoning of a site exceeding 10 000 m²
- 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 paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological 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 paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological 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.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise. 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 Exhumations (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 **National Health Act (Act 61 of 2003)**.

4.2 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.

5. METHODOLOGY

5.1 Survey of literature

A survey of literature was undertaken in order to obtain background information regarding the process of dealing with graves.

5.2 Site visit

The grave site of relevance to this report was visited during field work. The site was assessed in order to obtain contextual information on the area. The site was marked by means of the Global Positioning System (GPS), while a photograph was also taken.

6. DESCRIPTION OF THE ENVIRONMENT

The environment where the possible grave site is situated has been entirely disturbed. Although natural vegetation exists, this consists of regrowth. Pioneer species such as grass and weeds also indicate disturbance. The natural topography of the immediate surrounding area is relatively even with no outstanding natural features.

7. DISCUSSION

The relevant questions regarding the matter of the graves are discussed under this section. From the discussion the recommendations will follow.

7.1 Site assessment

One possible grave was identified. It consists of a number of bricks placed in a rectangle similar to that on many graves (Figure 4). A wire fence is also found around the area.

No indication of any other possible graves was seen. In fact, a feeding trough nearby indicates that the fenced in area is a feeding bay for cattle. It has been confirmed that this section of the farm (Santoy 230) is still being used as cattle farm (Personal communication: T. Mbonani). It further needs to be indicated that the bricks were loose and is thus not imbedded in the soil, which normally is the case with graves.

It therefore is believed that this is not a grave. However, since mortal remains are underground, there always will be uncertainty in this regard.



Figure 4: The possible grave.

7.2 Dealing with graves

The process of dealing with graves are included since there is a very slight possibility that it may indeed be a grave. If one assumes it is a grave it means that one of the three categories of graves is present, being an unknown grave, The other categories are those younger than 60 years and those older than 60 years of age (called heritage graves). Unknown graves are handled similarly to heritage graves.

Graves always are regarded as having a high cultural significance and receives a field rating of Local Grade IIIB. It should be included in the heritage register but may be mitigated. The register is kept by SAHRA/ the Provincial Heritage authority.

The process of dealing with graves has been described in detail by Van Vollenhoven (2017: 257-261) and is repeated here.

Usually there are two options when dealing with graves. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the activities of the development.

The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the development activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

7.2.1 Option 1: Fencing of the site and management plan

This option usually is preferred as the principle is that a heritage features should be preserved in situ. Since there always is a secondary impact due to construction and other activities on site, this needs to be regulated. One also needs to make provision for the accessibility to the site for descendants.

It is less time consuming than that of grave relocation and it also may be less expensive. However it does leave the land owner with the responsibility to preserve the site. In this case there are two other graveyards on the mine property that are being managed and preserved, and it would be possible to handle this one similarly.

The mentioned matters need to be addressed via the management plan, which needs to be written in accordance with the SAHRA guidelines in this regard. For the short term the site should be temporarily demarcated with danger tape. Once a final decision has been made, the management plan will provide the necessary guidelines for fencing, buffer zones, etc.

In summary, this option would entail erecting a fence, writing a management plan for the preservation and management of the site and implementing the latter.

7.2.2 Option 2: Exhuming and relocation of the graves

The second option is the exhumation and relocation of the graves to another graveyard, most likely the nearest municipal graveyard. The first important aspect to mention is that SAHRA prefers not to have graves exhumed. Therefore an additional motivation would be required, indicating why this is the only viable option. Should it then be allowed, the process, which is quite complicated, can be implemented.

This is a more expensive option and is also time consuming as a result of the permitting and social consultation process one is compelled by law to engage into. However, it is a permanent solution meaning that the responsibility of the land owner ends after relocation has been done. The grave relocation process is discussed below, although it is unlikely that this option will be chosen.

The grave relocation process:

Reporting the discovery

The discovery of all graves not located in a formal cemetery administered by a recognized local authority should be reported to the regional representative of the South African Heritage Resources Agency and the South African Police Service. SAHRA and the SAPS should visit the site and are required to advise regarding heritage related and possible criminal and judicial, and legal issues.

This step is part of the process and should the graves be exhumed this report will serve as informing document.

Identifying the graves

Three categories of graves can be identified. These are:

- Graves younger than 60 years;
- Heritage graves (these are divided into two sub-categories being graves older than 60 years, but younger than 100 years and graves older than 100 years (archaeological graves);
- Unknown graves.

Both the categories older and younger than 60 years may also include graves of victims of conflict or of individuals of royal descent which also are protected.

The graves to be relocated should be classified as accurately as possible into these categories. A concerned effort should also be made to identify the specific buried individual. These tasks must be accomplished by the social consultation process.

Social Consultation

Section 36 (3)(a) of the National Heritage Resources Act 25 of 1999 reads:

“No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

- (a) Destroy, damage, alter, exhume or remove from its original position or 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, 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 equipment, or any equipment which assists in the detection or recovery of metals.”

Furthermore, Section 36 (5) of the Act reads:

“SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3)(b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority-

- (a) Made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and
- (b) Reached agreements with such communities and individuals regarding the future of such grave or burial ground.”

In terms of social consultation and permits issued by SAHRA, these sections from the Act means that a permit will only be supplied if a “concerted effort” has been made to “contact and consult” the relatives or persons associated with those specific graves. Normally, such a social consultation process would (as a minimum) consist of the following:

- Full documentation of the entire social consultation process, including signed permission forms from the closest relatives providing permission for the grave to be relocated
- Site notices (in the format and for the duration required by the Act), and proof thereof
- Newspaper notices, and proof thereof
- Documentary proof of social consultation process, i.e. minutes of meetings held with family members/affected parties

The process is dealt with by a social consultant. Most of the undertakers are qualified to handle this as they, in any case, have to place the necessary advertisements in newspapers before being able to apply for their permits.

Authorization

This component incorporates obtaining permissions, permits and authorizations from the relevant compliance agencies. In order to obtain permits, the above mentioned is needed:

Different legislation applies to the different categories of graves set out above:

- Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the National Health Act (Act 61 of 2003). These graves fall under the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorization for exhumation and re-interment must also be

obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to.

- Permission must also be gained from the descendants (where known) and the 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
- Graves older than 60 years, but younger than 100 years, fall under the jurisdiction of two acts, namely the National Heritage Resources Act 25 of 1999 (Section 36) as well as the National Health Act 61 of 2003. Should graves older than 60 years, or if the age of the grave cannot be ascertained either by a grave marking or through a social consultation process, be located outside a formal cemetery, the Procedure for Consulting Regarding Burial Grounds and Graves (Section 36(5) of the Heritage Resources Act 25 of 1999) is applicable. However, graves older than 60 years but younger than 100 years, which are located within a formal cemetery administered by a local authority will also require the same authorization as set out for graves younger than 60 years over and above SAHRA authorization. If the grave is not located within a formal cemetery, but is to be relocated to one, permission must also be acquired from the local authority and all regulations, laws and by-laws set by the cemetery authority must be adhered to. A qualified archaeologist accredited by SAHRA must personally supervise any alteration to, or relocation of, graves in this category.
- Graves older than 100 years are classified as archaeological and are protected in terms of Section 35 of the National Heritage Resources Act 25 of 1999. Authorization from SAHRA is required for these graves. A qualified archaeologist accredited by SAHRA must also supervise any alteration or relocation of graves in this category. On the discretion of SAHRA, the Procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) might also be required. If the grave is situated in cemetery administered by a local authority the authorizations as set out for graves younger than 60 years are also applicable over and above SAHRA authorization.
- All graves of victims of conflict regardless of how old they are or where they are situated are protected by Act 25 of 1999 (National Heritage Resources Act). SAHRA authorization is required for all graves in this category. Any alteration to a grave in this category or the relocation thereof must be personally supervised by a qualified archaeologist accredited by SAHRA. If the grave is situated in a cemetery administered by a local authority the authorizations as set out for graves younger than 60 years are also applicable over and above SAHRA authorization. On the discretion of SAHRA the Procedure for Consultation Regarding Burial Grounds and Graves (Section

36(5) of Act 25 of 1999 (National Heritage Resources Act)) might also be required.

Exhuming the remains

The methods employed during exhumation will aim to recover all the remains, to minimize damage to the remains, to record the three-dimensional context of the remains and should preserve and respect the dignity of the buried individual. All evidence that might allude to the events leading to the death of the individual and circumstances regarding the event will be recorded and interpreted. The information gathered will be presented in a technical report as required by the relevant compliance agency.

The aim of the excavation should be the *in situ* exposure of the burial and associated artifacts (Nienaber and Steyn 1999). The focus should be on accurate and complete documentation (Nienaber 1997; Van Vollenhoven 1998). Various methods for the excavation of graves have been proposed by different authors (Hester et.al. 1975; Joukowsky 1980; Krogman and Iscan 1986; Morse 1978) but all stress the need for adequate workspace around the exposed remains and a systematic approach to the removal of individual bones.

The archaeological method, including extensive test trenching to prevent damage to the remains, should be employed. This approach should be largely similar to that of forensic archaeology where buried body cases are concerned. This approach should be adapted for the situation since graves vary in shape, size, depth and content (Nienaber 1999). The methods of forensic archaeology are discussed by Steyn, et al. (2000).

This part of the process can only be followed after a permit has been issued by SAHRA and the health authorities. Both an undertaker and an archaeologist are needed for heritage graves as they are responsible for different aspects of the exhumation.

Confirming the identity of the buried individual (Analysis)

Where any doubts exist regarding the identity of exhumed remains, a physical anthropological analysis aiming to help confirm or ascertain the identity could be conducted. This can be accomplished by comparing the results of the reconstruction of certain characteristics of the remains with known facts regarding the individual. Data on the remains should be recorded in a suitable format (such as that proposed Buikstra and Ubelaker (1994)) for future reference and comparison.

Physical anthropological analysis of remains of archaeological origin can be undertaken as a matter of course and could be required on the discretion of SAHRA. The techniques that are applied should aim to achieve the reconstruction of individuals rather than the study of populations. The only parallel methodology that exists is the techniques of forensic anthropology that also aims to ascertain the identity of individuals (Krogman and Iscan 1986). Where possible, deductions

regarding pathology, health and other indicators of stress should be considered during a reconstruction of events and the interpretation of evidence.

Usually it is not necessary to go through this step.

Reinternment of the remains

If the outcome of the social consultation allows for the curation of the remains, i.e. reinternment is not required by the identified families, persons or communities, the remains should be handed over for curation to a collaborating institution under Act 25 of 1999 (National Heritage Resources Act).

Should the remains be reburied, it will be done by a registered funeral undertaker acting in compliance with the relevant local regulations, laws and by-laws stipulated by the cemetery authority. The ceremony will be organized with the full participation of stakeholders and according to the wishes of the concerned families where these were identified.

Reporting

Reports compliant to the stipulations of the relevant legislation will be submitted as required by the relevant compliance agencies. Copies of all reports will be made available to the families and other stakeholders on request. All stakeholders are to have access to information generated by the project at all stages.

Anticipated timing

The aspects that take most of the time during the process of grave relocation are the social consultation and advertisements. Advertisement has to be placed on site for at least 60 days (unless all families are identified in a shorter period of time). The archaeologist needs the copies of the advertisements and results of the social consultation before it is possible to apply for a permit. Copies of the SAHRA comments on the HIA, also needs to be included in the application, which in this case is already available.

Another factor to be taken into consideration is the time it takes for SAHRA to issue permits. In theory it should only take about three weeks, but different factors may influence the issuing. SAHRA has a Burials Grounds and Graves Unit (BGG) dealing with these issues. The BGG unit has a committee to whom the application is sent via e-mail for comments. The flaw in the system is that these members may not respond or take a long time to respond resulting in a slowing down of the process.

7.2.3 Comparison of options

The management of risks is a difficult issue as one is never sure what kind of problems may occur under different circumstances. It is therefore necessary to indicate possible risks for the two options (Table 1).

Table 1: Comparison of options

Risk factor	Option 1: Fencing of site	Option 2: Exhumation and Relocation of graves
Access	Descendants will need undisturbed access to graves (only if descendants are identified)	Descendants will have access to new grave yard (only if descendants are 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 descendants	Not needed	Needed and without it no relocation will be allowed (only if descendants are identified)
Buffer zone	Limited since these graves are in a very restricted area	No issue as graves will be in a formal cemetery
Social issues	Only becomes an issue if descendants are identified	Only becomes an issue if descendants are identified
Security risk	Yes, as descendants must get access (only if descendants are identified)	No, as access would be at new cemetery
Management of sites	Yes, a sustainable management plan will be needed (to be managed by the land owner)	No, as this will form part of an existing cemetery
Upgrade and cleaning	Yes, site should be left by developer in a better state than before and it should be maintained	No, as this would be dealt with as part of the existing cemetery
Land claims	Yes, but only in case of a forced removal (only if descendants are identified)	Yes, but only in case of a forced removal (only if descendants are identified)
Finances	Less expensive, costs for the developers account	More expensive, costs for the developers account
Time frames	Less time consuming	More time consuming
Responsibility	Permanent responsibility for the developer	The developer's responsibility ends after the exhumation and relocation process

7.3 The way forward (Risk assessment)

As indicated Option 1 usually is a better option. In this case, the possible grave is already in a restricted area. It also makes sense as the area almost already is demarcated. The management plan to be written will need to have very strict control measures regarding buffer zones, accessibility and future work in the area.

If there is only one grave here it may be sensible to implement Option 2. This would mean relocating the mortal remains to the existing nearby mine workers cemetery.

However, the issue to deal with firstly should be to determine whether this indeed is a grave. If needed this could be done by doing a Ground Penetrating Radar Scan (GPRS). GPRS can be used to determine whether this is a grave and if there may be more graves present on site. A permit from SAHRA will be needed.

The problem with GPRS is that it cannot indicate whether skeletal remains are present. It only shows anomalies, e.g. a hole underground. It can therefore not provide conclusive evidence of graves being present. However, anomalies in an area where graves are present, usually points to these being graves.

In this case, finding various such anomalies within the fenced in area, probably would indicate the presence of more graves. Finding such an anomaly below the bricks, would of course indicate that it probably does constitute a grave.

A second option would be to excavate the site to determine its contents. For this a permit from SAHRA will also be needed. This will provide more accurate results on the specific possible grave but will provide no information on the possibility of more graves being present.

Risk assessment

The risk assessment table related to these possibilities (Table 2) are indicated below. It is extremely important that none of these provides for a 100% certainty that all possible graves have been located, but all will minimize risk.

Table 2: Risk assessment

Risk factor	GPRS	Excavation
SAHRA permit	Yes	Yes
Social consultation	Yes	Yes
Approval from descendants	Needed (only if descendants have been identified)	Needed (only if descendants have been identified)
Finances	Cost of GPRS and archaeologist	Archaeologist [#]
Time frames	One day	One day
Result accuracy	Will only indicate anomalies which may or may not be graves, but will consider entire area	Likely to provide conclusive evidence that this is a grave, but will not consider surrounding area
Cost implications	Less expensive	More expensive
Evaluation	Provides more cost-effective results for a larger area, especially since this specific site is not considered to be a grave	More expensive, but more accurate

[#] Should it be necessary to relocate human remains, an undertaker will need to be available

8. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is clear that that there is no easy solution in a case where there is uncertainty about whether a possible grave is indeed a grave. It is however stated that from the assessment the reasoned opinion is that this is not a grave.

Since there still is uncertainty and in order to minimize risk, the following is recommended:

- That the grave and are within the wire fence be scanned via GPRS to provide more clarity.
- The result from the GPRS can be used to interpret the site and determine a way forward. This could include the inclusion of the site in a cultural heritage management plan, should the conclusion be that it indeed is a grave site. If not, the site would not need to be preserved.
- Since there is uncertainty about the number of graves in the nearby known mine workers graveyard, it may be considered to also scan this site to determine possible additional graves. This is not a legal necessity but would make the contracting of a GPRS machine more cost-effective.

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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/ STATEMENT OF HERITAGE 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.
- Aesthetic 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

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low 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 and frequency. Also any important object found out of context.
- High Any site, structure or feature regarded as important because of its age 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

Field ratings:

- National Grade I significance should be managed as part of the national estate
- Provincial Grade II significance should be managed as part of the provincial estate
- Local Grade IIIA should be included in the heritage register and not be mitigated (high significance)
- Local Grade IIIB should be included in the heritage register and may be mitigated (high/ medium significance)
- General protection A (IV A) site should be mitigated before destruction (high/ medium significance)
- General protection B (IV B) site should be recorded before destruction (medium significance)
- General protection C (IV C) phase 1 is seen as sufficient recording and it may be demolished (low significance)

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, paleontology and meteorites

Burial grounds and graves

Public monuments and memorials

APPENDIX E

HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.