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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE  
PROPOSED OPENCAST MINING AT MSEBE BLOCK, NONGOMA DISTRICT,  
KWAZULU-NATAL PROVINCE**

For:

***Prime Resources***  
PO Box 2316  
Parklands  
2121

**REPORT NO.: AE01409V**

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## **SUBMISSION OF REPORT**

**Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.**

**It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.**

**Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.**

## **DISCLAIMER**

**Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites are as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.**

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## SUMMARY

Archaetnos cc was appointed by Prime Resources to conduct a cultural heritage impact assessment for the proposed Opencast Mining at Msebe Block. This is in the Nongoma District in the KwaZulu-Natal Province.

The HIA survey was conducted according to generally accepted HIA practices. It was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

In the area impacted upon by the proposed development no sites of cultural heritage significance were identified, but three sites were found nearby. The report gives a short discussion of these. It also indicates how to deal with any archaeological material that may be unearthed during construction activities in the future.

All three of the sites found are grave yards. There is two possible ways of dealing with this, depending on whether the impact thereon is direct or indirect. These may be impacted on indirectly. The necessary recommendations in dealing with these are made.

It is concluded that the proposed development may continue, but only after the indicated mitigation measures have been implemented. It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. 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.

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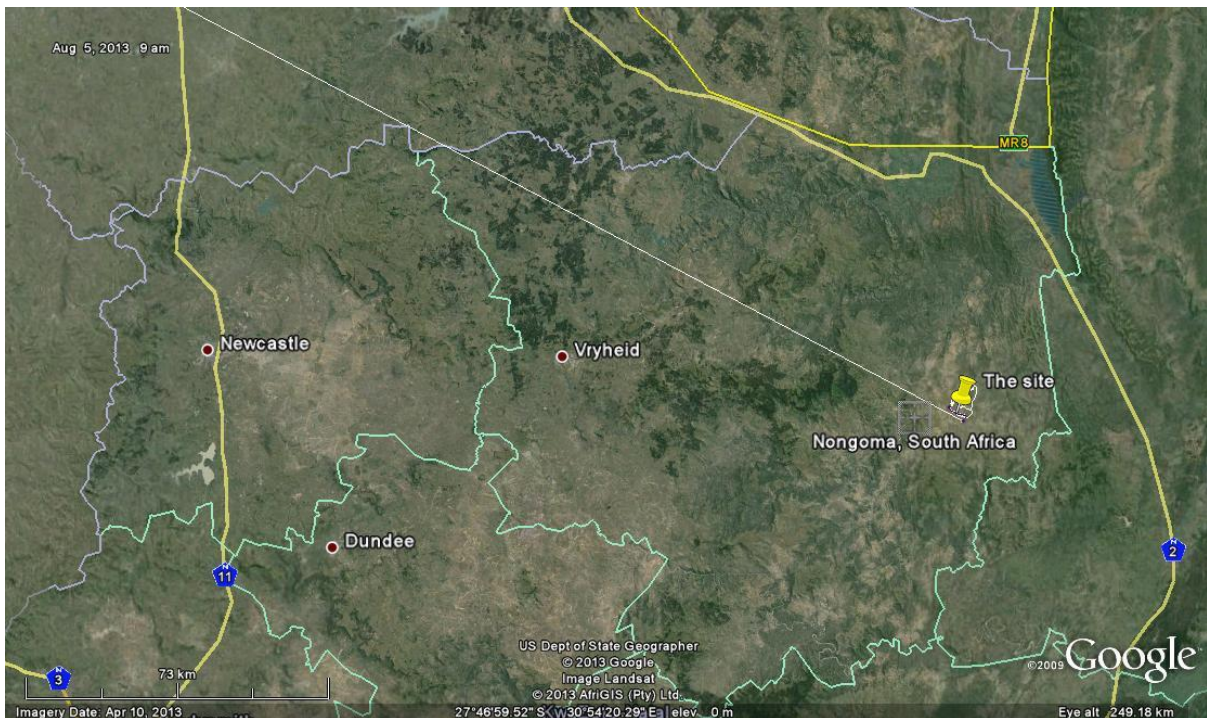
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## 1. INTRODUCTION

Archaeos cc was appointed by Prime Resources to conduct a cultural heritage impact assessment for the proposed Opencast Mining at Msebe Block. This is in the Nongoma District in the KwaZulu-Natal Province (Figure 1-3).

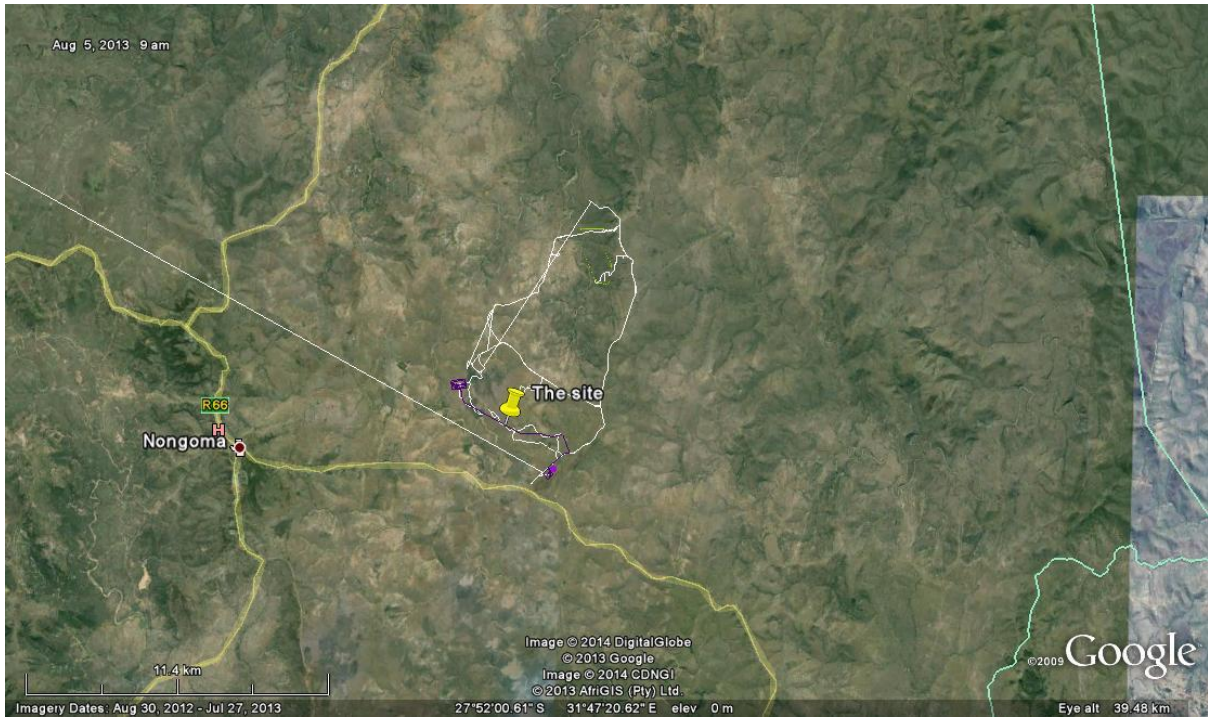
The project currently is in the pre-development stage and subject to the environmental authorization process required in support of the Mining Right Application and as per the requirements of the National Environmental Management Act. The project entails opencast mining and the development of surface infrastructure. The opencast mining will entail roll-over methods and the coal will be hauled by truck on existing roads to the coal handling plant located at the adjacent Mbila Anthracite Mine (not within the scope of this current assessment).

The client indicated the area to be surveyed. The field survey was confined to this area.

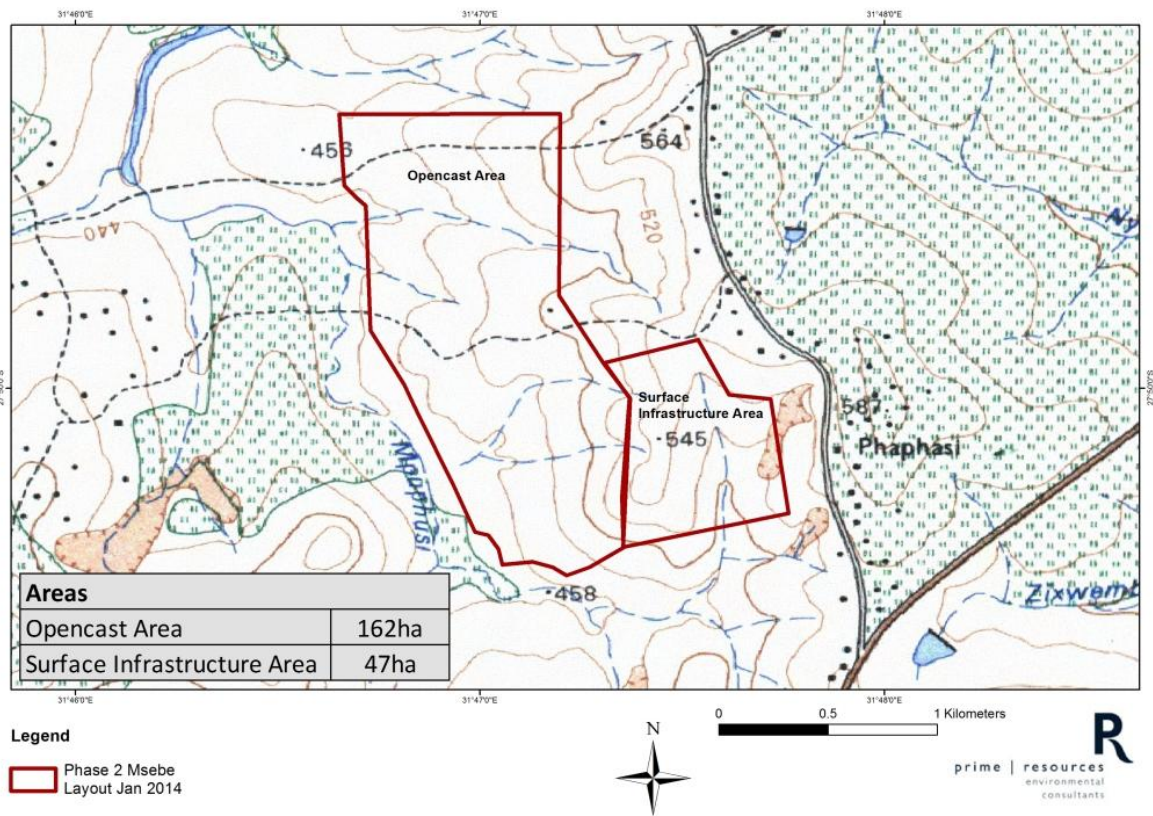


**Figure 1 Location of the site close to Nongoma in the KwaZulu-Natal Province. North reference is to the top of the map.**





**Figure 2 Location of the surveyed area in relation to Nongoma. North reference is to the top.**



**Figure 3 Map indicating the proposed mining and surface infrastructure area.**

## **2. TERMS OF REFERENCE**

The Terms of Reference for the survey was to:

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

## **3. CONDITIONS & 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 C).

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. In this case there were certain areas where the vegetation cover was reasonably dense which had a negative effect on archaeological visibility.

#### **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 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 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 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 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 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)**.

#### **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. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE**

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities.

This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians). Possible chance finds, encountered during the project development, also needs to be managed by not disturbing it and by having it assessed by professionals.

Impacts on the cultural heritage should be minimized. This include the possible maintenance of such sites *in situ*, or when impossible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artifacts and structures need to be removed is should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may however only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the effected communities. Again professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be engaged in. This entails that access to such communities should be granted to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage

resources should always be done in consultation with the effected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

## **6. METHODOLOGY**

### **6.1 Survey of literature**

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

### **6.2 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. One sometimes looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>1</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 4). Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The size of the area that was surveyed is approximately 209 Ha. The survey took five hours to complete.

### **6.3 Oral histories**

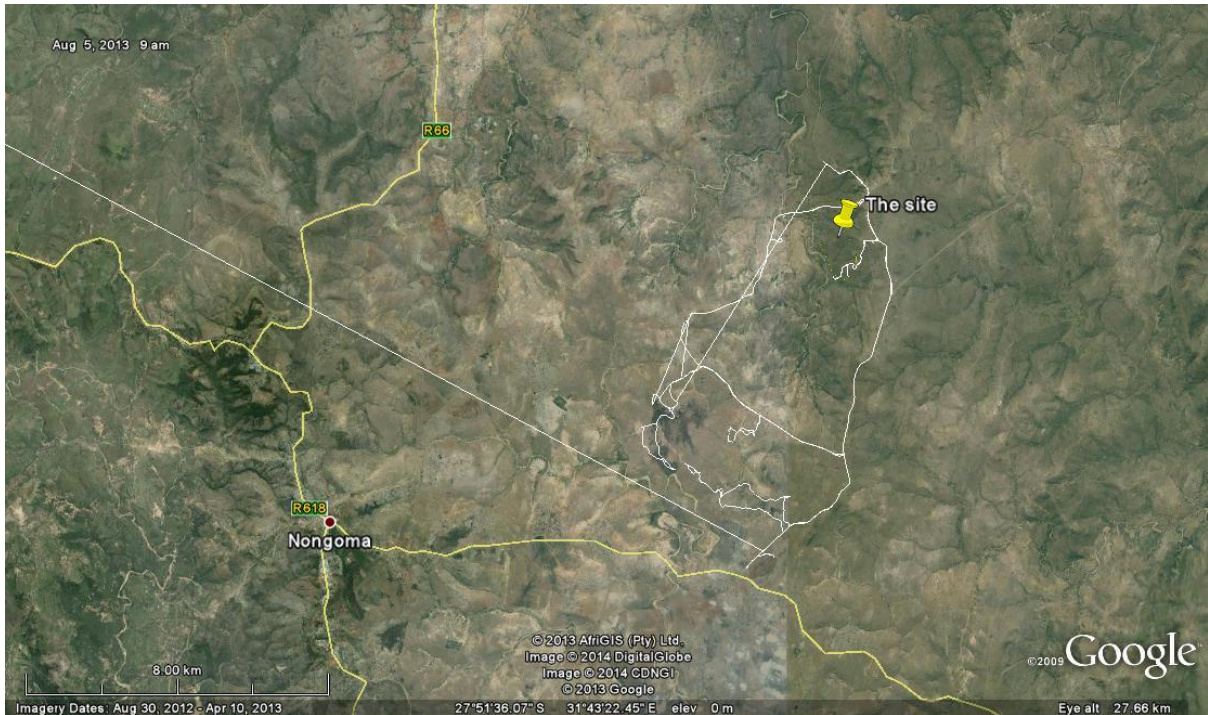
People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

### **6.4 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 the Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

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<sup>1</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.



**Figure 4 GPS track<sup>2</sup> of the surveyed area. North reference is to the top.**

### 6.5 Evaluation of Heritage sites

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) 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.

## 7. DESCRIPTION OF THE ENVIRONMENT

Most of the surveyed area consists of an undisturbed natural environment. Here and there some degraded patches are to be found. A few deep erosion dongas also had a negative impact on the area (Figure 5).

The natural environment consists of an extremely dense plant growth coupled with dense underfooting (Figure 6). Plants like aloes, candelabra and acacia trees and

<sup>2</sup> The survey was conducted by two people who were in radio contact with each other and using one GPS instrument. The track therefore only reflects the movement of one person.



grass are mostly found. As a result the archaeological visibility here is influenced negatively. The area mostly is used for grazing.

The topography of the area is very steep, running from north-east to south-west. Two rivers with their tributaries cut through the area, running in a western direction.



**Figure 5 View of an erosion donga in the surveyed area.**



**Figure 6 Dense natural vegetation in the surveyed area.**



## **8. HISTORICAL CONTEXT**

No sites of cultural heritage significance were located in the surveyed area, but three were found close nearby. In order to place this within context and to understand possible finds that could be unearthed during construction activities, it is necessary to give a background regarding the different phases of human history in the area.

### **8.1 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.

This geographical area is not well-known as one containing many prehistoric sites. This, however, definitely indicates a lack of research in the area. A few sites including different Stone Age sites are known. During previous surveys in the broader geographical context, Archaetnos has also found such sites. These are to be found in the vicinity of Newcastle, Dundee and Dannhauser, mostly dating to the Middle Stone Age (Archaetnos Database).

The environment definitely is suitable for Stone Age people. There is ample water and grazing for the wild life they would have hunted. Although no caves or rock shelters were identified, there most likely are such features in the surrounding mountains.

It is therefore very likely that Stone Age people did utilize and settled in the area. Although no such sites were identified during the survey, Middle and Late Stone Age material (e.g. flakes and scrapers) were found scattered in the area, especially in erosion dongas.

### **8.2 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.

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.

Both Early and Late Iron Age sites are known from the Kwazulu-Natal (Zululand) area. These are associated with the predecessors of the current Zulu people in the area. During the Late Iron Age (LIA), people stayed in extensive stonewalled settlements, but these are more likely to be found at the foot of the mountain and not on the plains where the survey has been conducted. Such sites were identified relatively close to the surveyed area, during previous studies in the area (Archaetnos Database).

Iron Age people therefore more than likely settled close to mountainous areas of the region hosting the study area. These areas provided good grazing as well as ample building material and would have provided a good environment for utilization by Iron Age people. This is the same reason why Caucasian settlers moved into this environment later on.

### **8.3 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. This era is sometimes called the Colonial era or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

After 1800, the small tribes in Zululand were unified by Chaka (Bergh & Bergh 1984: 14). During the Difaqane (1820's – 1830's), the Ndebele of Mzilikazi migrated from the north-eastern parts of Kwazulu-Natal to the north and most likely passed close to the study area. On this journey they conquered other groups and caused widespread chaos (Bergh 1999: 11).

Travelers and missionaries also came to the area. By 1824, people like FG Farewell, JS King, Henry Fynn, John Cane, Henry Ogle, Alexander Biggar, WH Davis, and Thomas Halstead have settled in Port Natal. It was, however, only during the 1830's when the Voortrekkers moved in that people from a western origin started colonizing the area to a large extent (Venter 1985: 25-27).

During the Anglo-Zulu War and the Anglo-Boer War (1899-1902) many battles were also fought in the vicinity of the study area (Bergh 1999: 51; Pretorius 1985: 14). One may therefore expect to find farm buildings and objects in the area, although none was found during the survey. Many graveyards have been identified in the surrounding region during past surveys (Archaetnos database).

## 9. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY

No sites were identified within the surveyed area. Three grave sites were however found close by.

### 9.1 Site 1 – Grave yard

This is a graveyard containing at least 14 graves (Figure 7). The graves are all stone packed some with and some without headstones. None of the headstones, all made of stone, have any information thereon.

The graves are close to a homestead and it is therefore presumed that it associated therewith. The dates of death of all of the graves are unknown. This means that one of the three categories of graves is present being those with an unknown date of death (to be handled as those older than 60 years, called heritage graves).

GPS: 27° 49' 15.9"S  
31° 47' 31.1"E

Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance. These graves are of a local significance and are therefore given a field rating of Grade IIIB. It may therefore be mitigated.

There are two options when dealing with graves. The first would be to fence it in and write a management plan for the preservation thereof. This option will come into play if there is no direct impact on the graves. It should be kept in mind that there always is a secondary impact on graves since families may not have access thereto once a mine comes into operation.

The second option is to have the graves exhumed and the bodies reburied. This option is preferred when graves cannot be avoided by the development. However, in order to be allowed to do this, a motivation needs to be submitted to SAHRA. If this is allowed and before exhumation can be done a process of social consultation is needed in order to find the associated families and obtain permission from them. For graves younger than 60 years only an undertaker is involved in the process, but for those older than 60 years or with an unknown date of death, an undertaker and archaeologist should be involved. Unknown graves are handled similarly to heritage graves.

Since the graves are outside of the development footprint no direct impact is foreseen. This is however close to the edge of the mining development and therefore an indirect impact could arise due to aspects such as material handling,

blasting and activities incidental to mining. Other disciplines will thus take cognizance of these graves as sensitive features in their relevant studies. Should these ascertain that an indirect impact is likely, then Option 1 should be considered.

It means that the site should be left *in situ*. It should then be fenced in and a conservation management plan for the sustainable preservation and management thereof should be drafted and implemented. The conservation management plan should be done in accordance with the latest SAHRA regulations.



**Figure 7 Some of the graves at site no. 1.**

### **9.2 Site 2 – Grave yard**

This is a graveyard containing at least 102 graves (Figure 8). The graves are either stone packed or have cement borders. Some have cement headstones and others stone headstones, but some are without headstones.

Some of the surnames identified are Mthembu and Shamase. The oldest date of death indicated is 2001 and the youngest 2008. Most of the graves have no date of death indicated. This means that two of the three categories of graves are present being those with an unknown date of death (to be handled as those older than 60 years, called heritage graves) and those younger than 60 years.

GPS: 27° 49'54.4"S  
31°47' 37.81"E

Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance. These graves are of a local significance and are therefore given a field rating of Grade IIIB. It may therefore be mitigated.

There are two options when dealing with graves. The first would be to fence it in and write a management plan for the preservation thereof. This option will come into play if there is no direct impact on the graves. It should be kept in mind that there always is a secondary impact on graves since families may not have access thereto once a mine comes into operation.

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It means that the site should be left *in situ*. It should then be fenced in and a conservation management plan for the sustainable preservation and management thereof should be drafted and implemented. The conservation management plan should be done in accordance with the latest SAHRA regulations.



**Figure 8 Some of the graves at site no. 2.**



### 9.3 Site 3 – Grave yard

This is a graveyard containing at least 1 grave (Figure 9). The grave is stone packed without a headstone.

This means that one of the three categories of graves is present being those with an unknown date of death (to be handled as those older than 60 years, called heritage graves).

GPS: 27° 49'53.2"S  
31°47' 29.0"E



**Figure 9 Single grave at site no. 3.**

Due to the sensitivity of this issue, graves are always regarded as having a **high** cultural significance. These graves are of a local significance and are therefore given a field rating of Grade IIIB. It may therefore be mitigated.

There are two options when dealing with graves. The first would be to fence it in and write a management plan for the preservation thereof. This option will come into play if there is no direct impact on the graves. It should be kept in mind that there always is a secondary impact on graves since families may not have access thereto once a mine comes into operation.

The second option is to have the graves exhumed and the bodies reburied. This option is preferred when graves cannot be avoided by the development. However, in order to be allowed to do this, a motivation needs to be submitted to SAHRA. If this is allowed and before exhumation can be done a process of social consultation is needed in order to find the associated families and obtain permission from them. For



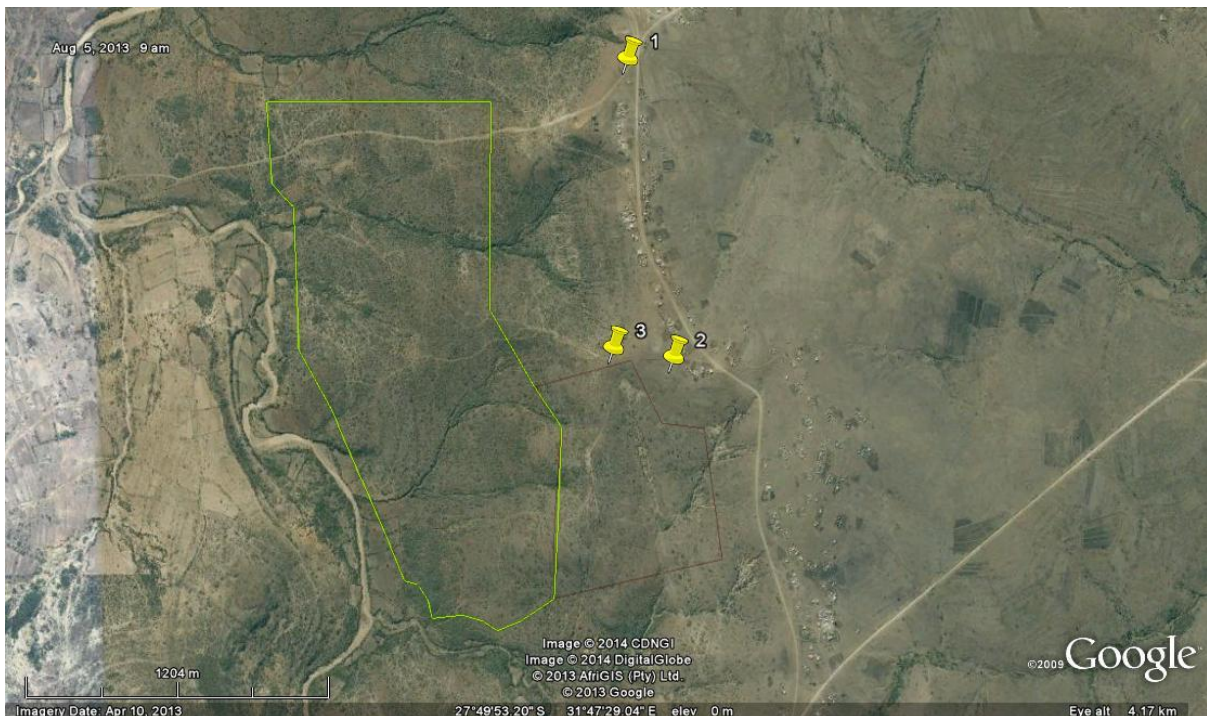
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Since the graves are outside of the development footprint no direct impact is foreseen. This is however close to the edge of the mining development and therefore an indirect impact could arise due to aspects such as material handling, blasting and activities incidental to mining. Other disciplines will thus take cognizance of these graves as sensitive features in their relevant studies. Should these ascertain that an indirect impact is likely, then Option 1 should be considered.

It means that the site should be left *in situ*. It should then be fenced in and a conservation management plan for the sustainable preservation and management thereof should be drafted and implemented. The conservation management plan should be done in accordance with the latest SAHRA regulations.

## 10. CONCLUSION AND RECOMMENDATIONS

The survey of the indicated area was completed successfully. Although no sites of cultural heritage importance were identified, three sites were found nearby (Figure 10).



**Figure 10 Google image indicating the location of the sites identified during the survey. North reference is to the top.**

The following is recommended:

- All three sites identified are grave sites. There are two options when dealing with graves.
- The first would be to fence it in and write a management plan for the preservation thereof. The plan should be done in accordance with the latest SAHRA guidelines. This option will come into play if there is no direct impact on the graves. It should be kept in mind that there always is a secondary impact on graves since families may not have access thereto once a mine comes into operation.
- The second option is to have the graves exhumed and the bodies reburied. This option is preferred when graves cannot be avoided by the development. Before exhumation can be done a process of social consultation is needed in order to find the associated families and obtain permission from them. For graves younger than 60 years only an undertaker is involved in the process, but for those older than 60 years or with an unknown date of death, an undertaker and archaeologist should be involved. Unknown graves are handled similarly to heritage graves.
- It always is advisable to rather implement option 1 as one would rather preserve sites in situ that to have it disturbed. There will most likely only be a secondary impact on these sites, as it is outside of the area where the development is planned. The moving of vehicles from the mine to the plant may however create a secondary impact. Therefore this option is recommended.
- A suitable buffer zone should be created (at least 20 m, but if blasting activities will be present, at least 100 m) and descendants should be allowed access to the site. This may be controlled by the mine due to their very strict health and safety legislation.
- After implementation of the mitigation measures recommended, the proposed development may continue.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. 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.
- Many grave sites were seen in the surrounding area, all close to homesteads. These should be monitored to ensure no impact. It basically entails that the mine should be aware of these and not deliberately impact thereon. Although there are too many sites to list, they are well visible next to and close to homesteads. It is suggested that monthly meetings with the community is set up, at which these sites may be an agenda points.

## 11. REFERENCES

Archaetnos database.

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

Bergh, J.S. & Bergh, A.P. 1984. **Stamme & Ryke.** Cape Town: Don Nelson.

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.** Scottsville: University of KwaZulu-Natal Press.

International Finance Corporation. 2012. **Overview of performance standards on Environmental and Social Sustainability. Performance Standard 8, Cultural Heritage.** World Bank Group.

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.

Pretorius, F. 1985. **1899-1902 Die Anglo-Boereoorlog.** Cape Town: Don Nelson.

Republic of South Africa. 1980. Ordinance on Excavations (**Ordinance no. 12 of 1980**). **The Government Printer: Pretoria.**

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.

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.

Venter, C. 1985. **Die Groot Trek.** Cape Town: Don Nelson.

## **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:

- i. National Grade I significance        should be managed as part of the national estate
- ii. Provincial Grade II significance      should be managed as part of the provincial estate
- iii. Local Grade IIIA                      should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB                        should be included in the heritage register and may be mitigated (high/ medium significance)
- v. General protection A (IV A)            site should be mitigated before destruction (high/ medium significance)
- vi. General protection B (IV B)          site should be recorded before destruction (medium significance)
- vii. 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, palaeontology 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.