

Bakgatla VTM Mine

Farm Nooitgedacht No. 11 JQ, Northam,
Limpopo Province

HERITAGE IMPACT ASSESSMENT

Input for Environmental Impact Assessment report undertaken
in terms of the National Environmental Management Act 107
of 1998

June 2016

PROJECT NO: HIA_260515.ECP Report no.: AE01632V

Produced for:

Bakgatla VTM

On behalf of:

EcoPartners



Produced by:

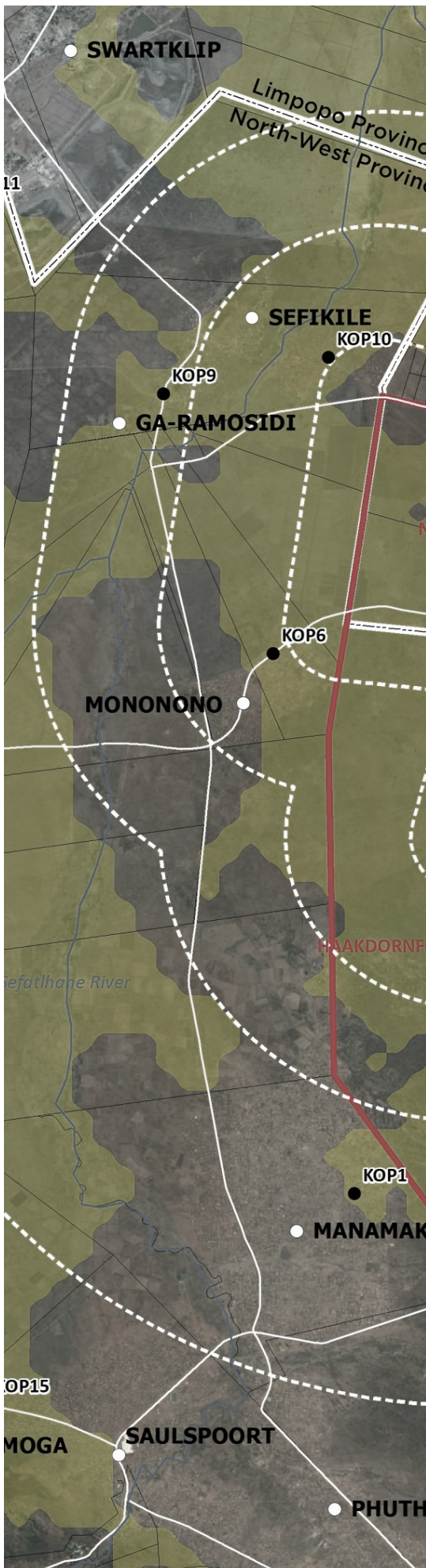
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SUMMARY

Zone Land Solutions in association with Archaetnos cc was requested by EcoPartners to conduct a cultural heritage resources impact assessment (HIA) for the Bakgatla VTM Magnetite Mine, close to Northam. The project area lies to the south of the town of Northam in the Limpopo Province.

The field survey for the project was conducted according to generally accepted HIA practices and was aimed at locating possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

Six sites of cultural importance were identified on the farm. It is therefore recommended that these be mitigated as indicated in the report.

It should also be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts 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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1. INTRODUCTION

Zone Land Solutions in association with Archætnos cc was requested by EcoPartners to conduct a cultural heritage resources impact assessment (HIA) for the Bakgatla VTM Magnetite Mine, close to Northam. The project area lies to the south of the town of Northam in the Limpopo Province.

The two properties on which the mine is planned however cross provincial boundaries, being in the Limpopo Province and the North West Province, respectively (Figures 1-4). The client indicated the area to be surveyed. The field survey was confined to this area and was done via off-road vehicle and on foot.

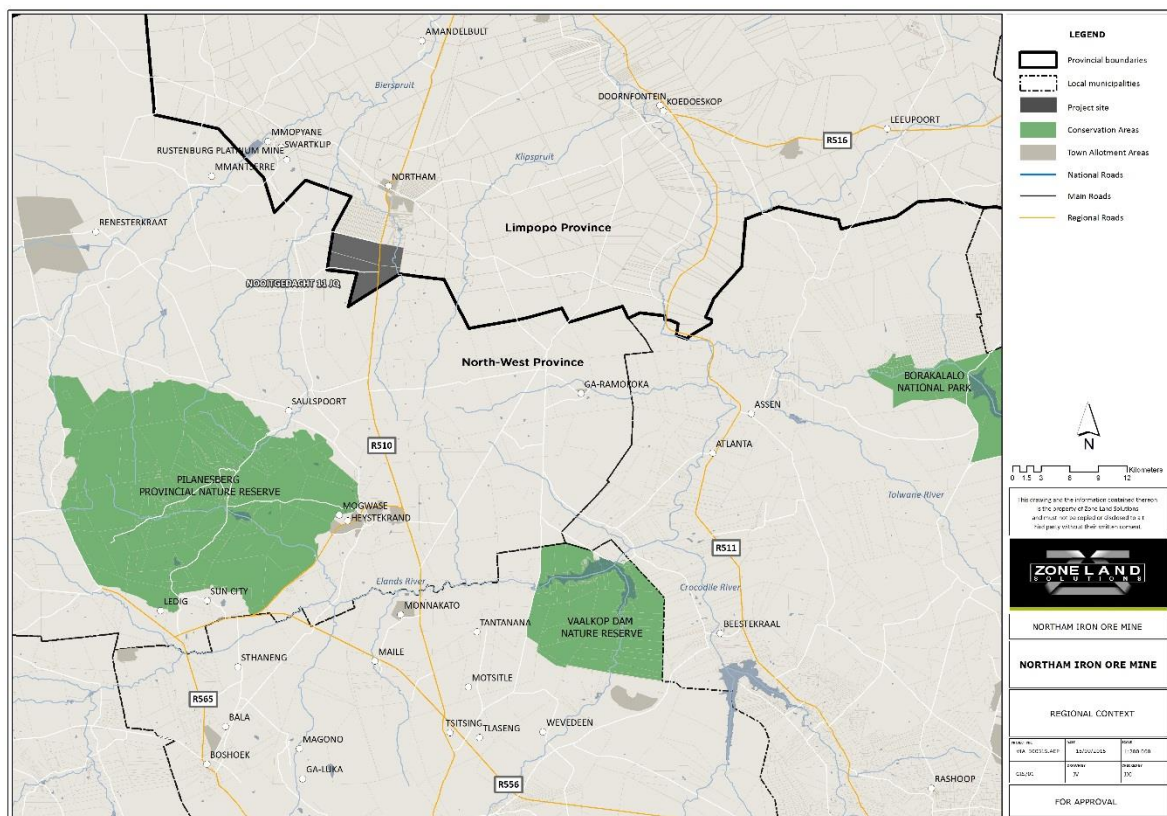


Figure 1: Location of the town of Northam in the Limpopo Province. North reference is to the top.

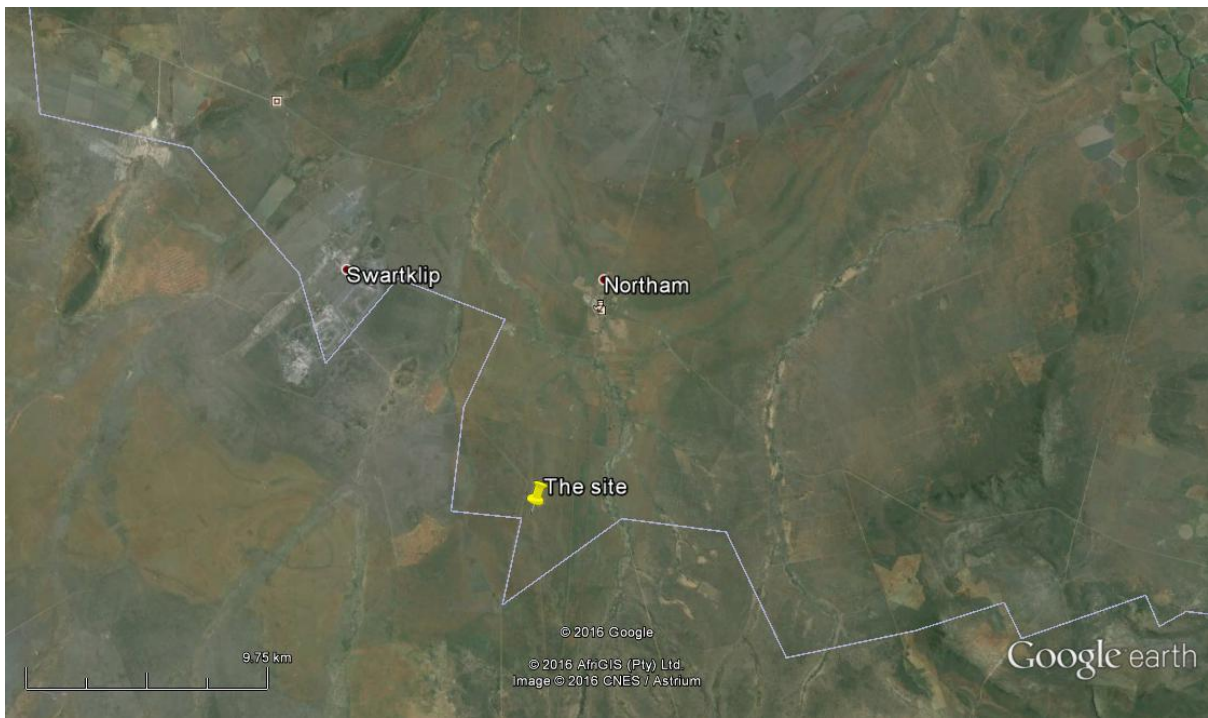


Figure 2: Location of the surveyed site in relation to Northam. North reference is to the top.

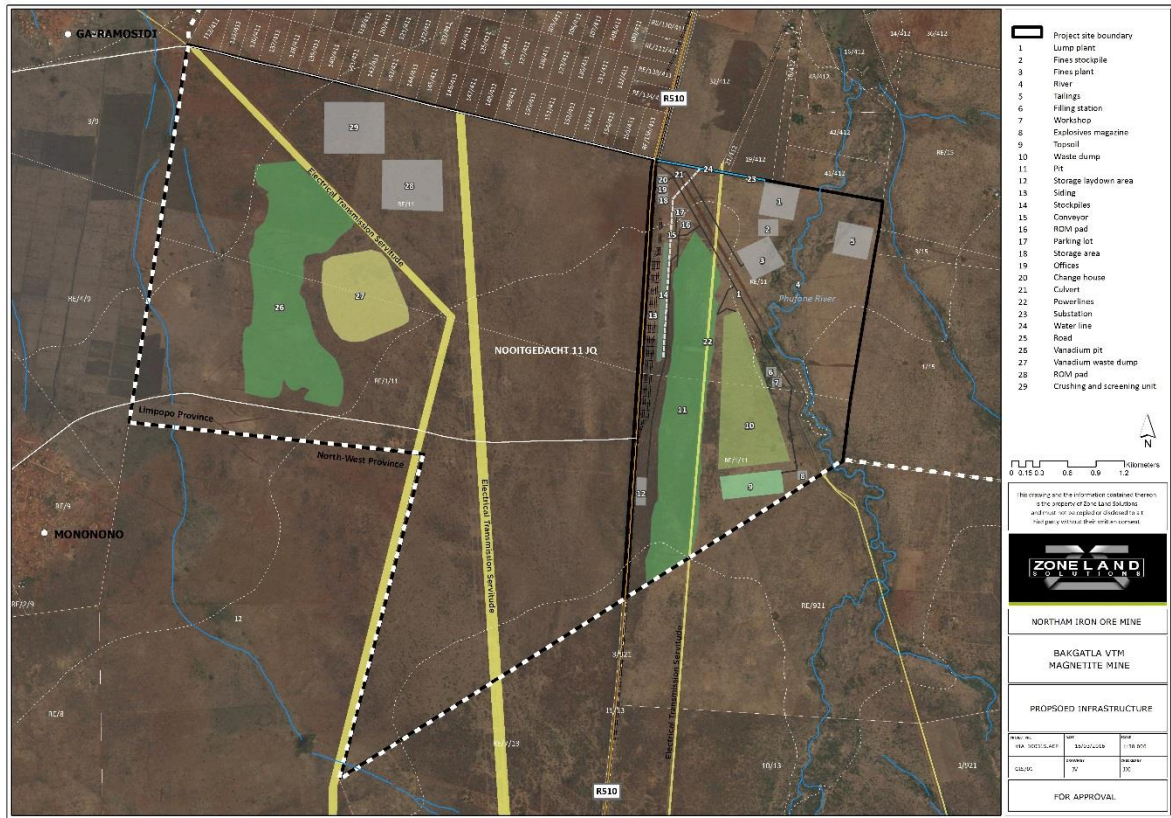


Figure 3: Map of the project area indicating the proposed development.

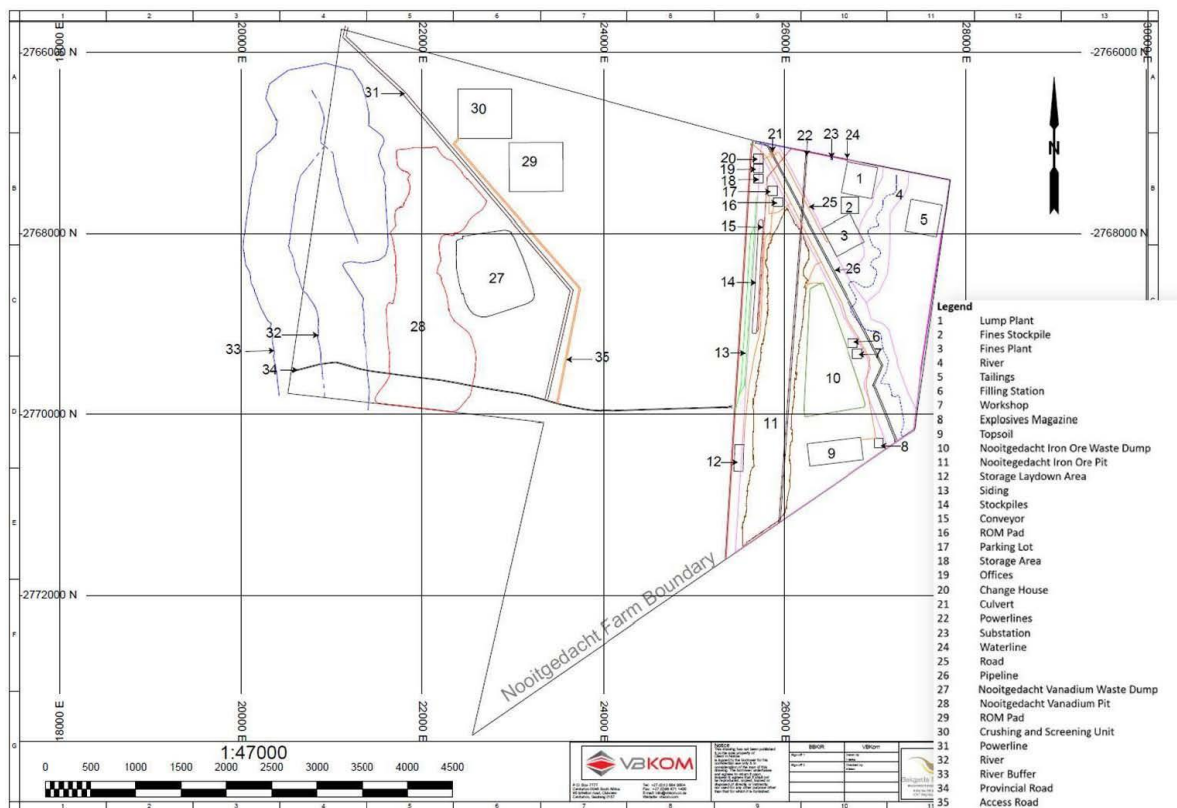


Figure 4: Layout map.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were 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. Document the found cultural heritage sites according to best practice standards for heritage related studies.
3. Study background information on the area to be developed.

4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.

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 artefacts 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 artefacts 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 very dense in certain areas which had a negative effect on both the horizontal as the vertical 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 artefacts, 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 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.

All graves older than 60 years are called heritage graves and should be handled by an archaeologist. This includes archaeological graves, which are older than 100 years. Unidentified/unknown graves (which refers to date of death) 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 be 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 includes 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 artefacts and structures need to be removed it 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 affected 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 regularly 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)¹, 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 5).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The area to be assessed is approximately 2 000 Ha and the survey took 10 hours to complete.

¹ A Garmin Oregon 550 with an accuracy factor of a few meters.

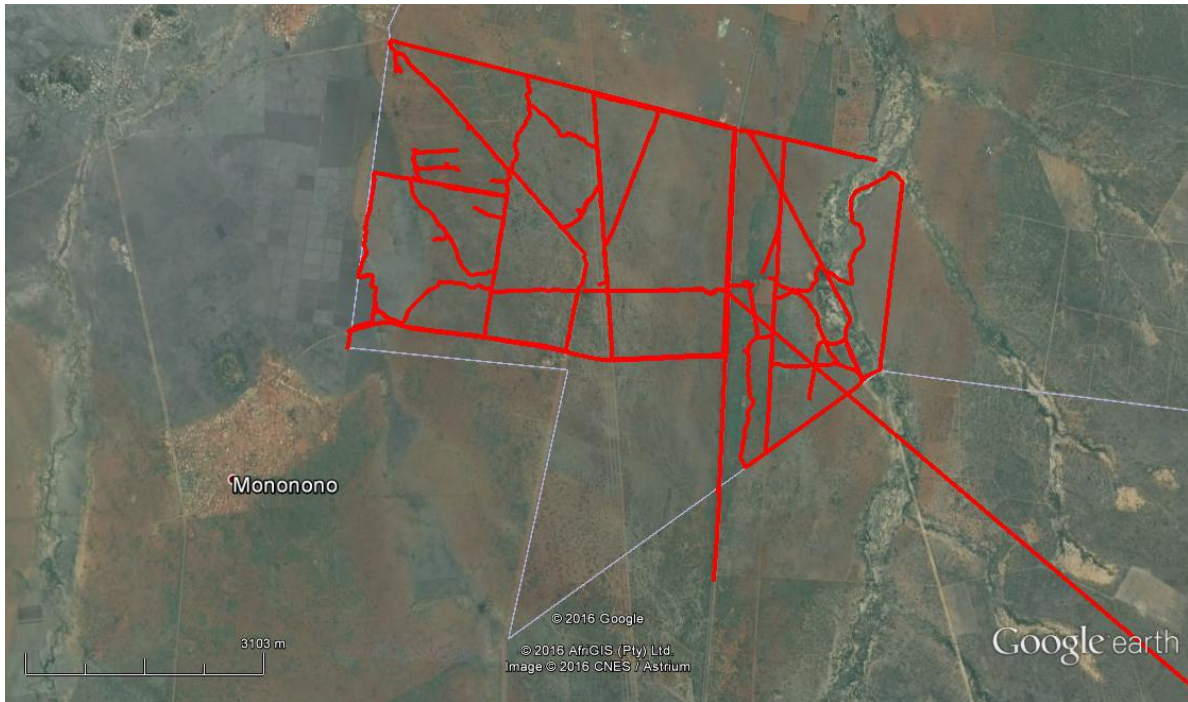


Figure 5: GPS track of the surveyed area². North reference is to the top. No access could be gained on the southern section, but no development is planned here.

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

² Two archaeologists, in radio contact, did the survey, but only one GPS unit was used.

accepted by the archaeological profession. Co-ordinates of individual localities were determined by means of the GPS. The information was added to the description in order to facilitate the identification of each locality.

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. The affected environment

7.1 Locality

The project site straddles the boundary between the Limpopo and North West Provinces. As such, the project site is located in

the Thabazimbi Local Municipality (LIM361) in the Limpopo Province and the Moses Kotane Local Municipality (NW375) in the North West Province.

The majority of the mining activities are to take place on the farm Nooitgedacht No. 11JQ in the Thabazimbi Municipality. The subject property is some 5km south of the town of Northam.

The area consists mainly of commercial farms and game farming while a few towns and villages are also found in the area. These settlements include Thabazimbi/Regorogile, Northam, Dwaalboom, Rooiberg, smaller settlements such as Leeupoort, Kromdraai, Koedoeskop, Makoppa and Sentrum and formal mining settlements such as Setaria (Northam Platinum Ltd), Swartklip and Amandelbult (Anglo Platinum Ltd) (Thabazimbi Integrated Spatial Development Framework, 2007). The rural villages of Sefikile, Mononono and Legogolwe is located immediately west and north-west of the project site.

7.2 Land use

The major land use presence in the area is the Northam Union Mine situated approximately 15km west of Northam town and approximately 6km north-west of the project site. The mine operates under a mining right, covering a total of 119km² in the north-western section of the Bushveld Igneous Complex (BIC), which is considered to be a rich source of PMG. The life of the Union mine extends to 2028.

7.3 General environmental characteristics

The Thabazimbi area is characterised by three prominent east-west trending mountain ranges. The majority of the mining

operations take place in these mountains where the deposits occur. The altitude of these ranges vary between 905m (on the valley floor) to 1 280m above mean sea level. The most prominent topographical feature in the Moses Kotane Municipality is the Pilanesberg.

The mountain is an ancient volcanic structure, circular in shape that rises from flat surrounding plains. It is formed by three concentric ridges or rings of hills, of which the outermost has a diameter of about 24 km.

7.4 History of mining in the area

The first iron ore reef in the area was discovered in 1919 by J.H. Williams. This discovery also provided the town with its current name, which translates to 'mountain or iron' in Tswana.

The area was mined since the 1930's when iron and steel production started. The town itself was proclaimed in 1953 (<http://www.thabazimbi.gov.za/>).

Today Iscor Steelworks in Tshwane still draw much of their raw material from Thabazimbi Kumba Resources (Iron Ore mine). More than 2 million tons of ore are mined every year and hauled by train to Mittal's iron and steel works.

The Thabazimbi SDF described Northam as the second largest town in the Thabazimbi Municipal area. The town has a well-established business sector and caters for residents of the Northam town, and for the wider farming and mining areas.

7.5 Project site description

As described above the project site consists of properties situated in different administrative regions. The subject properties upon which the project is to be implemented are:

- The farm Nooitgedacht No. 11 JQ; 1519.1103ha; Limpopo Province; Thabazimbi
- Haakdoornfontein No. 12 JQ; 3065.1512ha; North West Province; Moses Kotane

The majority of mining activities are to take place on the Farm Nooitgedacht No. 11J Q in the Thabazimbi Municipality. The project site displays typical bushveld characteristics with grassveld interspersed with moderate to dense trees throughout. The project site is effectively split into three areas by the roads and railway lines traversing the site.

The area seems to have been overgrazed to a large extent and other signs of disturbance were also noted. This includes old agricultural fields, power lines with large servitudes, pioneer plant species taking over, a railway line, roads and other farming infrastructure (Figure 6-8).

In general the farms consist of two different environmental characteristics. Sections are very open with medium to high vegetation, while others show dense vegetation with thick ground cover (Figure 9-10). Accordingly the latter has a negative effect on horizontal and vertical archaeological visibility.

The topography of the area is relatively flat. There is a very slight downward slope towards streams that are located here.



Figure 6: ESKOM powerline in the area. Note the servitude which has almost entirely been disturbed.



Figure 7: Pioneer plant species in the surveyed area.



Figure 8: Old agricultural field in the surveyed area.



Figure 9: View of vegetation showing almost no under footing.



Figure 10: Dense vegetation in the surveyed area.

8. Discussion of baseline information

Six sites of cultural heritage significance were located. In order to place this in context as well as to contextualise possible future finds, a brief description of the history of the broader geographical environment is provided.

A few reports were also identified from the SAHRIS database of SAHRA. The information is included below.

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.

The closest known Stone Age site in the vicinity of Northam is a number of Late Stone Age sites in the Magaliesberg Mountains, which lies approximately 100 km to the south. A rock art site is known to the northeast. Rock engravings are found to the south and east of Rustenburg (the latter lying about 100 km to the

south of the surveyed area). These date back to the Late Stone Age (Bergh 1999: 4-5).

Mountainous features in the project area may have sheltered Stone Age people. The area probably provided good grazing and the abundance of water make it very likely that Stone Age people may have utilized the surroundings for hunting purposes. One may therefore find Stone Age material out of context lying around, as well as sites in the hills and mountains.

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 artefacts (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.

Many Late Iron Age sites have been identified in the area around the towns of Rustenburg, Koster and Groot Marico as well as in the Waterberg Mountains. This however excludes the surveyed area (Bergh 1999: 7-8). During earlier times the area was

inhabited by Tswana groups, namely the Fokeng and Kwena. These people fled from Mzilikazi during the Difaquane, but later on returned (Bergh 1999: 9-11).

Iron Age sites were found during surveys on farms in the vicinity of the mine (Archaetnos database). This coupled with a suitable environment proves that these people utilized this area as it would have provided good grazing and water for livestock. There also is ample building material.

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.

Early travellers have moved through this part of the Northwest and Limpopo Provinces. The first of these was the expedition of Dr. Andrew Cowan and Lt. Donovan in 1808. They were followed by Robert Scoon and William McLuckie in 1827 and

1829 and Dr. Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Andrew Geddes Bain in 1831. After them came Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). Hume again moved through the area with Scoon in 1835. In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingston passed through this area in 1847 (Bergh 1999: 13, 119-122).

In 1837 the Voortrekkers also moved through the Swartruggens area (Bergh 1999: 11). During this year a Voortrekker commando moved out against Mzilikazi and was engaged in a battle with his impi to the north of Swartruggens. The area surveyed was inhabited by white settlers between 1841 and 1850 (Bergh 1999: 14-15).

Historical structures, such as farm houses and infrastructure relating to these times, may therefore be found in the area. It also is possible to find graves from this era.

Below are figures of heritage features seen in the project area. These are included as an indication that heritage sites does exist here. However it will only be discussed in full in the Heritage Impact Assessment report.

9. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY

As indicated, six sites of cultural importance were identified during the survey. All of these belong to the Historical Age.

9.1 Graves

Graves are always regarded as having a **high** cultural significance. The field rating thereof is Local Grade III B. It should be included in the heritage register, but may be mitigated.

Two possibilities exist. 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 mine.

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 mining 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.

Site 1 – two graves

GPS: 25°00'36.0"S; 27°12'43.6"E

One of the graves is stone packed and the other has a granite headstone and border (Figure 11). Only one surname could be identified, namely Tau, but no date of death is indicated.

It means that only one of the three categories of graves are present, being those without a date of death (called unknown graves). Unknown graves are handled similarly to heritage graves.



Figure 11: The graves at site no. 1.

Site 2 – three graves

GPS: 25°01'34.8"S; 27°15'20.5"E

All three of the graves have granite headstones and borders (Figure 12). Only one surname could be identified, namely Rakgase. The oldest date of death is 2005 and the youngest 2007, but the third grave has no date of death indicated.

It means that two of the three categories of graves are present, being those without a date of death (called unknown graves) and those younger than 60 years. Unknown graves are handled similarly to heritage graves.



Figure 12: The graves at site no. 2.

Site 3 – five graves

GPS: 25°01'34.2"S; 27°15'16.0"E

All five of the graves are stone packed with stone headstones (Figure 13). No information are indicated.

It means that one of the three categories of graves are present, being those without a date of death (called unknown graves). Unknown graves are handled similarly to heritage graves.



Figure 13: The graves at site no. 3.

Site 5 – grave yard

GPS: 25°02'19.1''S; 27°15'18.4''E

The site consists of at least 5 graves, but is very overgrown and therefore there may well be more. Four of these are stone packed and one has a granite headstone and border (Figure 14). The only surname identified is Mamatu and the date of death indicated as 1972.

It means that two of the three categories of graves are present, being those without a date of death (called unknown graves) and those younger than 60 years. Unknown graves are handled similarly to heritage graves.



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

9.2 Historical residential remains and buildings

All structures older than 60 years are potentially regarded as being heritage sites. However other factors, as indicated above, are used in determining its cultural significance.

Site 4 – house remains

GPS: 25°02'02.9"S; 27°15'16.4"E

It is the remains of a house with at least four rooms. It was build with clay bricks and plastered with clay, but was later added to by using bricks and concrete (Figure 15). It is nothing more than a ruin and may be associated with grave site no. 5.



Figure 15: Historical house remains.

The site is not unique as many such examples are found. It therefore is regarded as having a low cultural significance. The field rating thereof is General protection C (IV C). This phase 1 report is seen as sufficient recording and it may be demolished.

Site 6 – historical farm house

GPS: 25°01'36.1"S; 27°15'21.4"E

This is a farm house with associated farm infrastructure on a farm yard (Figure 16). It is in a reasonably good condition and may be associated with grave sites no. 2 and 3.



Figure 16: Historical farm house.

The site is not unique as many such examples are found. However it is in a good condition and is regarded as having a medium cultural significance. The field rating thereof is Local Grade IIIB. It should be included in the heritage register and may be mitigated if necessary.

10. CONCLUSION AND RECOMMENDATIONS

The survey of the indicated area was completed successfully. The sites discussed above are indicated in Figure 17.

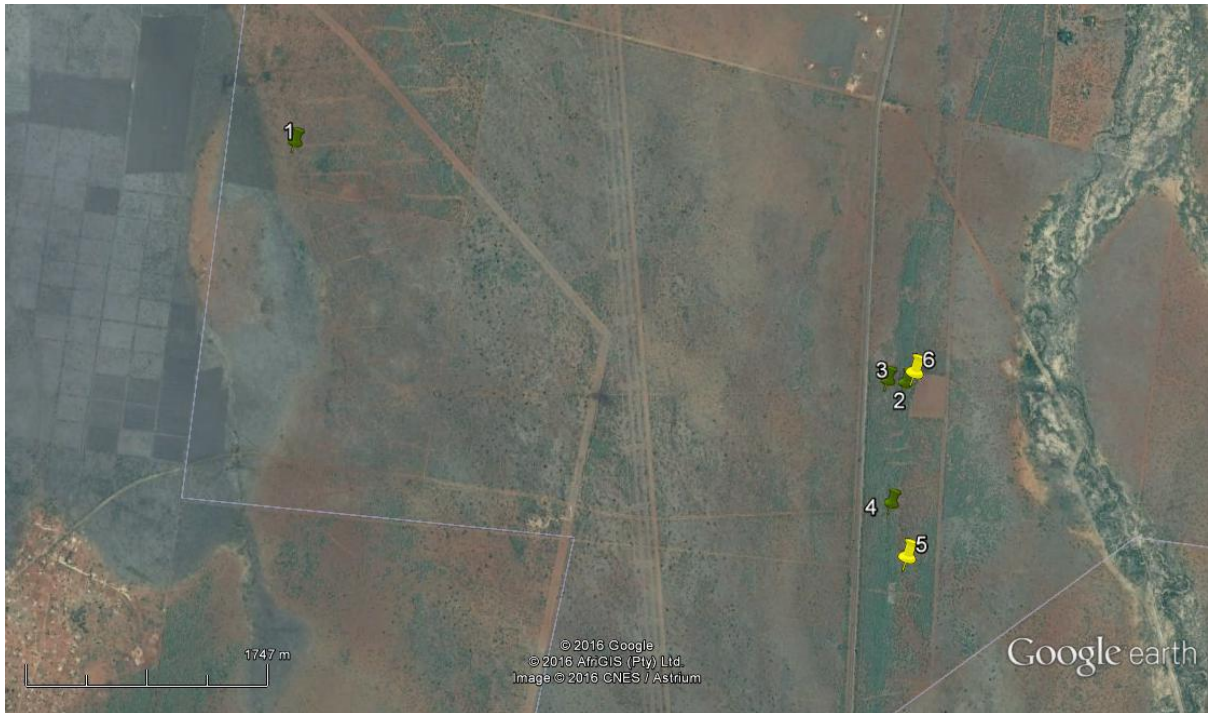


Figure 17: The heritage sites identified during the survey.

The following is recommended:

- Although six sites of heritage significance were found in the surveyed area, there always is a possibility that more of these may become known at a later stage. This is due to factors indicated in the report.
- For the moment, the area that could not be accessed should not have a negative impact on this report as no development infrastructure is proposed there.
- All the graves are regarded as being of a high cultural significance. There are two possibilities of handling these. It should be handled as follows:

- 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 option is implemented when indirect or secondary impact is foreseen.
- Option 2 is implemented when a direct impact is foreseen. Should any danger be posed to the graves, option 2 will have to be taken. This is to exhume the mortal remains and then to have it relocated. For this a detailed motivation will have to be written and applied for to SAHRA. If approved, the 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.
- There will be a secondary impact on site no. 1 (Graves). Secondary or indirect impact includes issues such as dust and blasting. For this site, option 1 needs to be implemented.
- All the other grave sites will directly be impacted. These are sites no.: 2, 3 and 5. For these option 2 needs to be implemented.
- The two remaining sites, site 4 and 6 will also be directly impacted.
- Site 2 (historical ruins) is regarded as having low significance. This report is seen as ample mitigation and it may be demolished.

- Site no. 6 (farm house) is regarded as having medium cultural significance. It should be documented after which it may be demolished. It would however be best if the development could be adapted to keep the house and perhaps reuse it as offices or something similar.
- The impact of the development on any new heritage sites identified during the course of the mines activities, should be assessed by a heritage specialist to determine impact and propose the needed mitigatory measures.
- It should always be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts 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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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 artefacts, 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: Artefact (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 having 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

- Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
- Baseline assessment – establishment of a broad framework of the potential heritage of an area.
- Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
- Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
- 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.
- Phase III management plan – for rare cases where sites are so important that development cannot be allowed.