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**PHASE 1 HIA REPORT FOR THE BARBERTON MINE: SHEBA EAST COLLAR
PROSPECTING RIGHTS APPLICATION
LOCATED ON THE FARM SHEBA SIDING 939JU
NEAR BARBERTON, MPUMALANGA**

For:

*EcoPartners
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REPORT: APAC018/79

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A handwritten signature in black ink, appearing to be 'A. Pelser', is centered on the page.

SUMMARY

APELSER ARCHAEOLOGICAL CONSULTING cc (APAC) was appointed by EcoPartners to conduct a Phase 1 HIA for the Barberton Mines: Sheba East Collar Prospecting Rights Application. The study area is located on the farm Sheba Siding 939JU, near Barberton in the Mpumalanga Province.

Background research indicates that there are cultural heritage (archaeological & historical) sites and features in the larger geographical area, although nothing is known for the specific development site. The field assessment identified some sites & features of cultural heritage origin in the study area. The report discusses the results of both the background research and physical survey, and provides recommendations on the way forward.

Based on the background study and physical assessment it is recommended that the proposed PRA be allowed to continue, taking into consideration the recommendations put forward at the end of the report.

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1. INTRODUCTION

APELSE ARCHAEOLOGICAL CONSULTING cc (APAC) was appointed by EcoPartners to conduct a Phase 1 HIA for the Barberton Mines: Sheba East Collar Prospecting Rights Application. The study area is located on the farm Sheba Siding 939JU, near Barberton in the Mpumalanga Province.

Background research indicates that there are cultural heritage (archaeological & historical) sites and features in the larger geographical area, although nothing is known for the specific development site. The field assessment identified some sites & features of cultural heritage origin in the study area.

The client indicated the location and boundaries of the study area and the assessment concentrated on this portion. The heritage specialist team was accompanied during the assessment by a representative of the applicant as well as a representative of the Sheba Traditional Authority.

2. TERMS OF REFERENCE

The Terms of Reference for the study were to:

- 1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;*
- 2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;*
- 3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;*
- 4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;*
- 5. Review applicable legislative requirements;*

3. 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).

3.1 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 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. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

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

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 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 the Act deals with archaeology, palaeontology and meteorites. It states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

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

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

Human remains

Graves and burial grounds are divided into the following:

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

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

- a. destroy, damage, alter, exhume or remove from its original position 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.

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 to) 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)**.

3.2 The National Environmental Management Act

This act 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.

4. METHODOLOGY

4.1 Survey of literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

4.2 Field survey

The field assessment section of the study was conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed.

4.3 Oral histories

People from local communities are sometimes 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.

4.4 Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

5. DESCRIPTION OF THE AREA

APELSER ARCHAEOLOGICAL CONSULTING cc (APAC) was appointed by EcoPartners to conduct a Phase 1 HIA for the Barberton Mines: Sheba East Collar Prospecting Rights Application. The study area is located on the farm Sheba Siding 939JU, near Barberton in the Mpumalanga Province.

The study area is located in a natural rocky mountainous section of the Barberton Mountain Lands. The proposed borehole / drilling sites are partly located in the Sheba village, and further east along a stream which feeds into the Fig Tree Creek. The area was investigated on foot and visibility was good as the veld was dry and accessible. Some sections have recently been burnt.

An existing access road which runs through the village is still clear and goes as far as site RSPG006. It continues further as a footpath up the mountain (south of the proposed sites RSPH001 – RSPH006). It is believed that the access road is quite old as it had been cut in the slope and build up with large stones to support the road on the slope.

The borehole numbers RSPG0001 – RSPG0004 are located in or close to the village. Boreholes RSPG005 & RSPG006, RSPH001 – RSPH006 are east of the village, north of the stream and mostly against the slope.

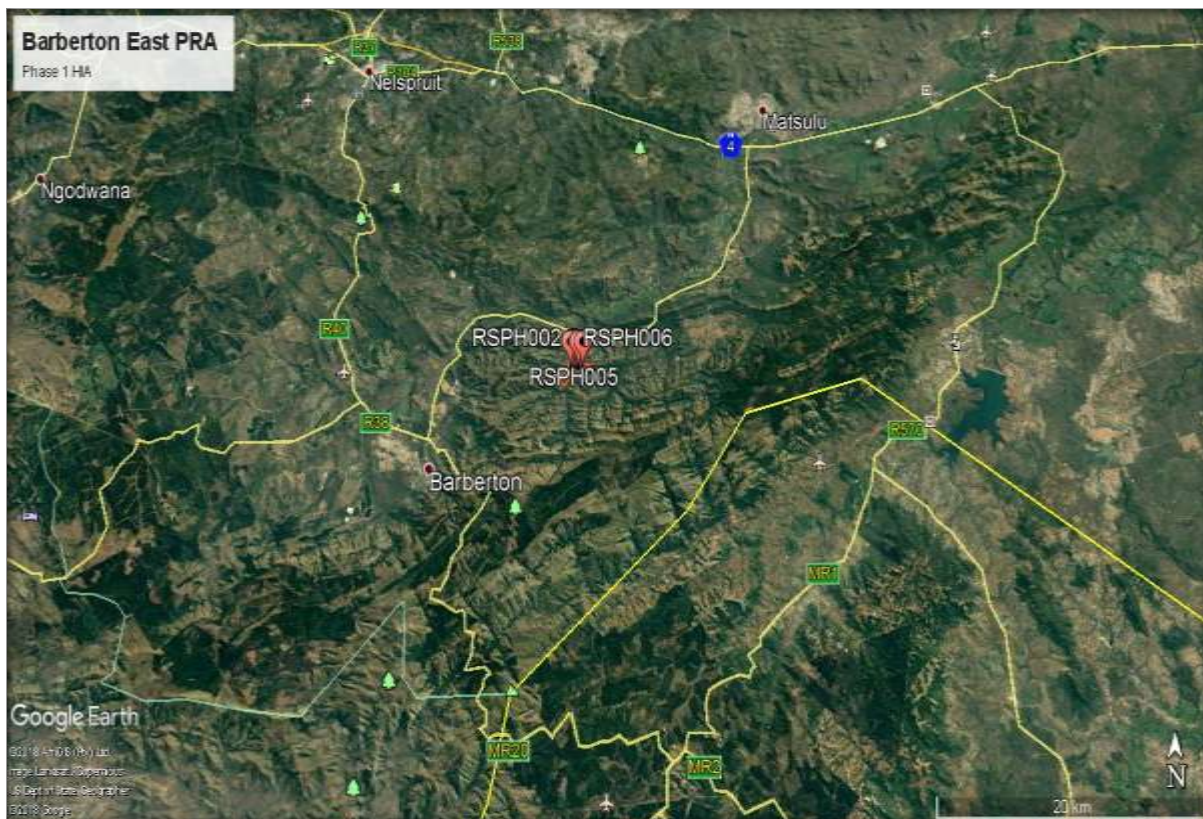


Fig.1: General location of the study area (Google Earth 2018).



Fig.2: Closer view of location of study area indicating the proposed Boreholes/drilling sites associated with the PRA (Google Earth 2018).

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago

Middle Stone Age (MSA) less than 300 000 – 20 000 years ago

Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

No known Stone Age sites could be found in the specific study area, although some LSA sites are known to occur in the larger geographical area of Barberton and Carolina (Berg 1999: 4). This includes some rock art sites as well (p.5). It is possible that Stone Age sites and objects could be located in the area, especially near rocky outcrops and hills and near streams and river beds (many which run through the study area).

No Stone Age sites or objects (such as stone tools) were identified in the area, and if any were to be found it would most likely be single, out of context, stone tools.

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

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are 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.

No EIA sites are known to occur in the area (Bergh 1999: 6), but LIA stone walled sites are located in the larger geographical area (p.7). This was traditionally also a Swazi area (Bergh 1999: 10-11) and many sites, features and objects related to earlier Swazi settlement would possibly be located in the larger geographical area.

Tom Huffman's research work shows that EIA, MIA and LIA sites, features or material could be found in the area. This could possibly include the Silver Leaves facies of the Urewe Tradition dating to AD280-450 (Huffman 2007: 123), the Mzonjani facies of the same tradition (between AD450 and AD750 (p.127 and possibly the Maguga facies of the Kalundu Tradition dating to between AD1200 and AD1450 (p. 301).

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people who were able to read and write. In 1725 Jan van de Capelle, in charge of the Dutch fortification and trading post Fort Lijdzaamheid at Delagoa Bay (Maputo), sent an expedition to explore an inland route to the fabled land of Monomotapa. It was a military expedition of 31 men, commanded by Francois de Kuiper. On 5 July 1725 Sergeant Johannes Monna and 6 men reconnoitred a route through the Komatipoort to reach Iron Age communities to the west. They were the first Europeans to enter the present-day Mpumalanga Province (Van Schalkwyk 2011: 7).

The tropical climate, as well as malaria, bilharzia, nagana, sleeping-sickness and other human and animal diseases, prevented widespread colonial occupation. The rinderpest outbreak of the 1890s (which decimated large numbers of wild animals and cut down the distribution of tsetse flies), the advent of the railways, planned land settlement of white farmers, the development of agriculture and the establishment of nature conservation areas changed this situation and resulted in increasing numbers of colonists settling in the lowveld region.

During the 1840s until the 1880s, the area was visited sporadically by prospectors, scientists, hunters and other explorers, most notably St Vincent Whitshed Erskine (1868 and 1871) and Karl Mauch (1870). Gold was discovered in the Barberton region in 1884 and was quickly followed by other discoveries (Van Schalkwyk 2011: 7).

Some recent historical sites or features (possible graves) were identified in the area of the proposed bore/drilling holes during the field assessment, while some known grave sites and cemeteries located outside of the impact area were also shown to the specialist by the Sheba Tribal Authority.

Results of the November 2018 Assessment

A site visit was conducted on 9 November to the Barberton Mines: Sheba East collar to inspect the proposed borehole / drilling sites for any remains of an archaeological or cultural nature. The community Induna Siphon Shongwe from the Sheba Tribal Authority accompanied us to the area. He pointed out some recent burial sites. These burial sites will not be impacted upon by the proposed borehole / drilling sites.

Sites RSPG0001 – RSPG0004 are located in the village. This section has already been disturbed with infrastructure and agricultural fields and no archaeological or heritage features were observed in this section.

A possible grave was observed immediately north of the access road. This feature must be avoided when the existing access road is used to reach the sites. The inspection revealed no archaeological, heritage features or graves between sites RSPG0005 & RSPG0006.

A possible grave was observed between sites RSPH001 & RSPH002. This feature consists of a prominent heap of stones. It is slightly higher (south), and off the access road. This feature must be avoided when the access roads to the drill sites are made. The current access road stops at this point, continuing as a footpath. Another possible grave was observed in the vicinity of RSPH003. This feature is slightly built-up with stones but is not very distinct.

Old prospecting trenches are visible north of RSPH003. These trenches are not at the proposed sites for drilling but care must be taken to avoid these features when access roads are planned. No other archaeological or heritage features were observed in the rest of this section where RSPH004, RSPH005 & RSPH006 are proposed.

GPS Locations of Sites (See Locations on Figures 3 & 9)

PG1 = S25 42 43.00 E31 10 16.28

PG2 = S25 42 45.88 E31 10 25.77

PG3 = S25 42 45.38 E31 10 30.40

G1 = S25 40 54.91 E31 10 28.96

G2 = S25 41 37.48 E31 10 27.80

G3 = S25 42.38.91 E31 10 05.52

G4 = S25 42 37.95 E31 10 01.83

Prospecting Trenches = S25 42 44.67 E31 10 31.38

It should be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.

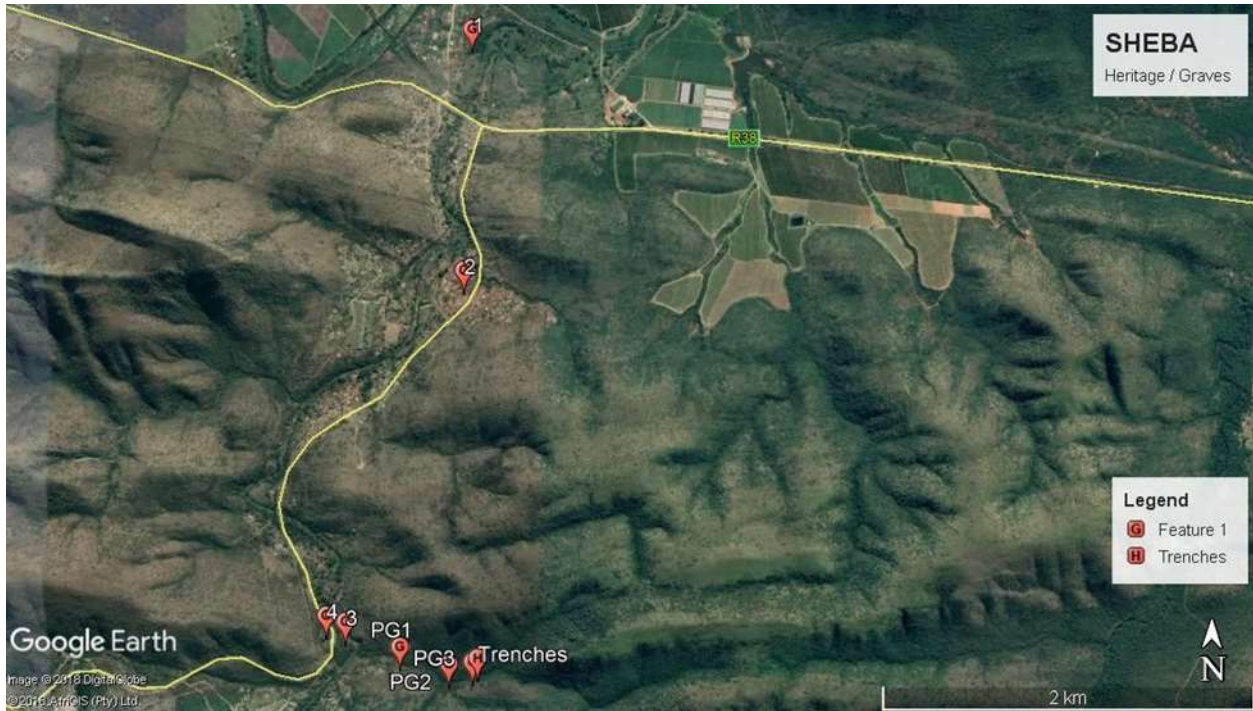


Fig.3: Location of additional burial sites outside of the study area (G1, G2, G3 & G4). Sheba/Mahoshobe Community Graves (Google Earth 2018 – C. Rowe).



Fig. 4: Induna Sipho Shongwe at the Sheba Siding burial site.



Fig. 5: The burial site of Induna Siphon Shongwe's family in the village.



Fig. 6: The Gwebo family burial site as pointed out by Induna Siphon Shongwe, in Mahoshobe village.



Fig. 7: The memorial building at the Sheba Cemetery.



Fig. 8: The Sheba cemetery dating from ca 1894.

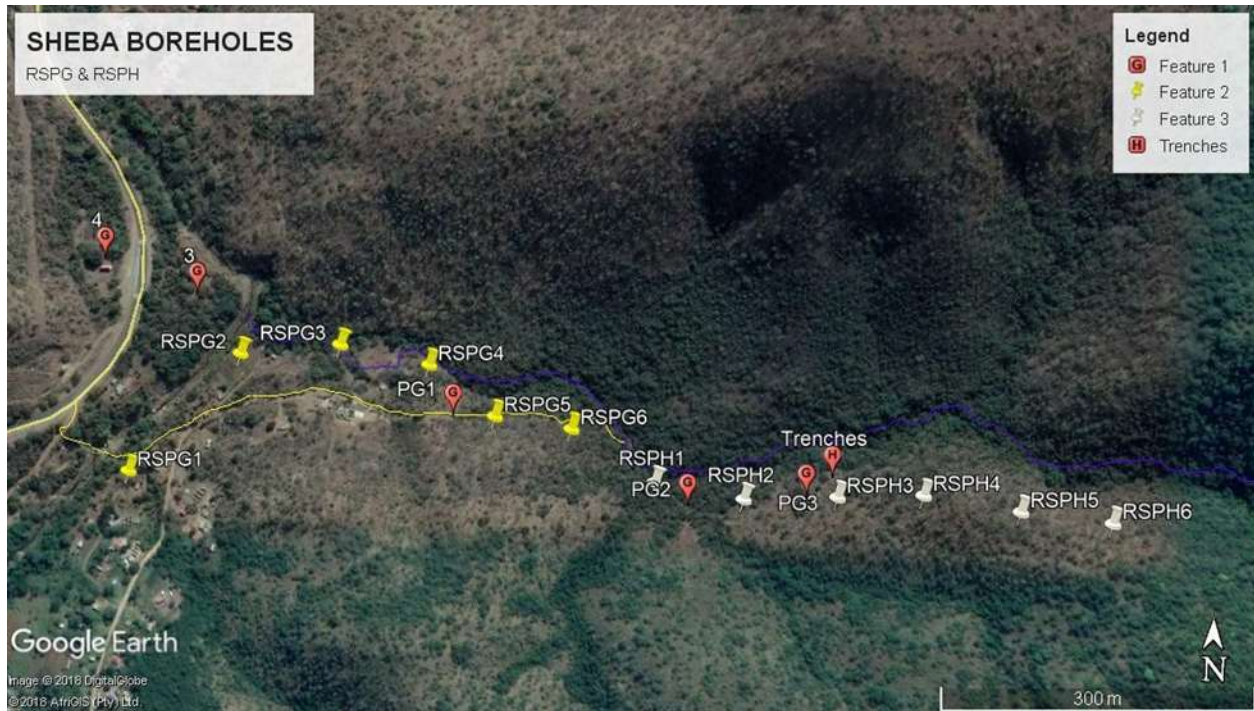


Fig.9: The location of the borehole / drilling sites along a stream near the Sheba village. The location of the possible graves found (PG1-PG3) is also shown (Google Earth 2018 – C.Rowe).



Fig. 10: RSPG001 is situated in the village.



Fig. 11: RSPG002 is situated in an agricultural field at the village.



Fig. 12: RSPG003 is situated near the stream, also in an open area within the village.



Fig. 13: The existing road which will be used by the Mine to access the area.



Fig.14: The existing access road.



Fig. 15: It is recommended that the existing road be used to gain access to the sites. The road was built up in sections with large stones to support it on the slope.



Fig. 16: RSPG004 is situated north of the access road on a slope towards the river (on the outskirts of the village).



Fig. 17: A possible grave was observed roughly between RSPG004 & RSPG005. This feature is just below the access road and care must be taken to avoid it.



Fig. 18: RSPG005 is situated south of the access road.



Fig. 19: RSPG006 is situated south of the access road on a slope.



Fig. 20: RSPH001 is situated south of the access road, near a drainage line.



Fig. 21: A prominent heap of stones between RSPH001 & RSPH002 is a possible grave. It is slightly higher, and off the access road. This feature must be avoided when the access roads to the drill sites are made. The current access road stops at this point, continuing as a footpath.



Fig. 22: RSPH002 is situated south of the river against a slope.



Fig. 23: RSPH003 is situated south of a possible grave and old prospecting trenches.



Fig. 24: A slightly built-up feature might be a possible grave. This is in the vicinity of RSPH003.



Fig. 25: Old prospecting trenches are still visible in this section.



Fig. 26: RSPH004 is situated south of the river, on a slope.



Fig. 27: RSPH005 is situated south of the river, on a slope.



Fig. 28: RSPH006 is situated south of the river, on a slope.

7. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the Phase 1 HIA for the Barberton Mines: Sheba East Collar Prospecting Rights Application was conducted successfully. The study area is located on the farm Sheba Siding 939JU, near Barberton in the Mpumalanga Province..

Background research indicates that there are cultural heritage (archaeological & historical) sites and features in the larger geographical area, although nothing is known for the specific development site. The field assessment identified some sites & features of cultural heritage origin in the study area.

Twelve prospecting holes are proposed for the Sheba East collar in the Sheba Mine future plans. Three possible graves (PG1, PG2 & PG3), were identified in the study area and care must be taken to avoid these features.

It is also proposed that the existing access road be used as far as possible to minimize the impact of the footprint on the area. No other archeological or heritage features were observed during the survey

From a Cultural Heritage point of view the development should therefore be allowed to continue taking into consideration the above recommendations.

Finally, it should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

8. REFERENCES

Aerial views of study area location & Sites recorded: Google Earth 2018.

All Site and Assessment Photos: Me. C. Rowe

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www.wikipedia.org.za

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.