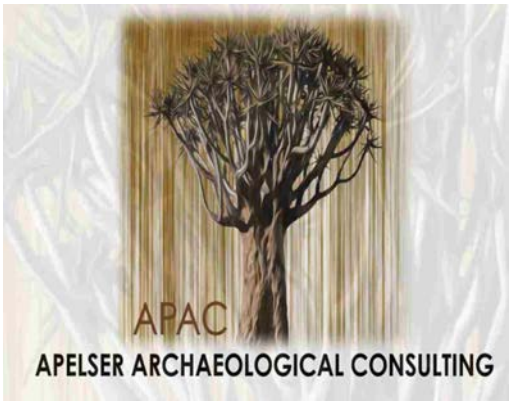

Comprehensive and Professional Solutions for all Heritage Related Matters

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REPORT ON A PHASE 1 HERITAGE IMPACT ASSESSMENT FOR THE MPHALELE MINING RIGHTS APPLICATION SITUATED 60KM SOUTH-EAST OF MOKOPANE AND 50KM SOUTH OF POLOKWANE IN THE LIMPOPO PROVINCE

For:

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REPORT: **APAC021/03**

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DISCLAIMER:

Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSER Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.

Clients & Developers should not continue with any development actions until SAHRA or one of its subsidiary bodies has provided final comments on this report. Submitting the report to SAHRA is the responsibility of the Client unless required of the Heritage Specialist as part of their appointment and Terms of Reference

SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Red Kite Environmental Solutions (Pty) Ltd to undertake a Phase 1 HIA for the Mphalele Mining Rights Application (MRA). The study area is 60 km south-east of Mokopane and 50km south of Polokwane in the Limpopo Province.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. No sites were identified in the study area focused on in the January 2021 assessment. The report will discuss the results of the desktop study and field assessment and provide recommendations on the way forward at the end of the document.

From a Cultural Heritage point of view the proposed Mining Rights Application can continue, taking into consideration the mitigation measures proposed at the end of the report.

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1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Red Kite Environmental Solutions (Pty) Ltd to undertake a Phase 1 HIA for the Mphalele Mining Rights Application (MRA). The study area is 60 km south-east of Mokopane and 50km south of Polokwane in the Limpopo Province.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. No sites were identified in the study area focused on in the January 2021 assessment.

The client indicated the location and boundaries of the study area, and the assessment focused on this. Due to community issues and safety, the Heritage Specialist was accompanied by community representatives during the fieldwork. This hampered movement around the area and access to certain sections to some degree and this needs to be taken into consideration in the results obtained. The mitigation measures recommended at the end also took this aspect in mind.

2. TERMS OF REFERENCE

The Terms of Reference for the study was 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 000m^2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000 m^2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

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

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

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

Archaeology, palaeontology and meteorites

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

a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or

d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

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

Human remains

Graves and burial grounds are divided into the following:

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

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

a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

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

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated 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 is 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 is 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 are determined by means of a Global Positioning System (GPS), while detailed photographs are also taken where possible.

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. In this case the community representatives accompanying the specialist during the assessment provided some relevant information.

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 were 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

The Mphahlele Community Development Trust holds a Mining Permit and Prospecting Right over the farm Locatie van M'phahlele 457 KS for their current small-scale opencast operations. The Mining Right area is situated 60 km south-east of Mokopane and 50km south of Polokwane in the Limpopo Province. Current mining operations consist of opencast mining (small-scale), overburden and ROM stockpiling and associated activities. Mining is currently restricted to the 5 ha mining permit issued for the operation. The applicant proposes to apply for a Mining Right on the same farm portion to extend the existing opencast operations and to establish underground mining. The mine also proposes to establish a wash plant and associated facilities such as residue stockpiles. The residue material from the wash plant will be allowed to dry, where after it will be stockpiled and used as backfill material for the opencast void, thus no tailings dam will be constructed for the project.

The mining project will include the following infrastructure and activities:

- Opencast and underground mining of chrome
- Backfilling of opencast void with waste rock/overburden and tailings
- Haul and access roads (including drainage line crossings)
- Workshop, administrative buildings and parking areas
- Processing plant (including crushing and screening)
- Stockpiles (topsoil, ROM, waste rock/overburden, product)
- Groundwater abstraction (boreholes)
- Storm water management infrastructure (channels, berms and pollution control dams)
- Tailings storage facilities – a tailings drying pad and dry stockpiling
- Ablution facilities
- Process and clean water storage

The opencast pit will be mined in a typical grid by grid truck and shovel method. Initially there will be topsoil stripping and stockpiling, then subsequent drilling and blasting of rock (interburden etc.) rock face thereafter. Handling of Run of Mine (ROM) with large front-end loaders and trucks will complete the open cast mining. Waste rock will be stockpiled until such time as there is sufficient space available inside the pit for storage of waste. Then waste rock will be placed in mined out areas as the face is advanced.

The topography of the study area is relatively flat and open, although there are some rocky outcrops occurring in places while hills and mountainous areas are located in the surrounding and larger geographical region. Some settlements like Mphalele, Dithabaneng and Mamaolo are located close to and bordering the study and development area. Large parts of the area have been used in the past for agricultural purposes (ploughing and crop growing) and the original natural landscape has been extensively altered. Portions are also used for cattle and other livestock grazing/

No sites, features or material of any cultural heritage (archaeological and/or recent historical) origin or significance were identified during the assessment. The results of the physical assessment and the desktop study will be presented in the next section.

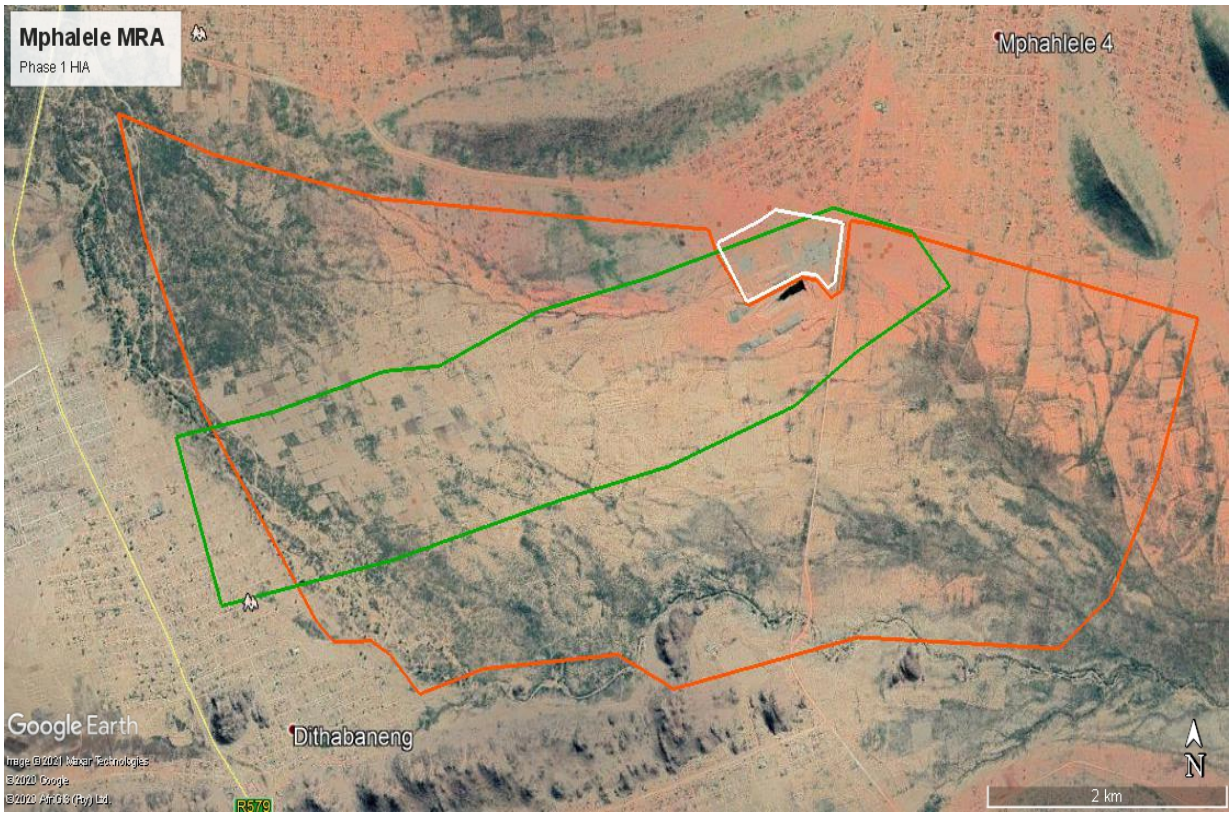

Figure 1: View of the location and footprint of the study area (Google Earth 2021).

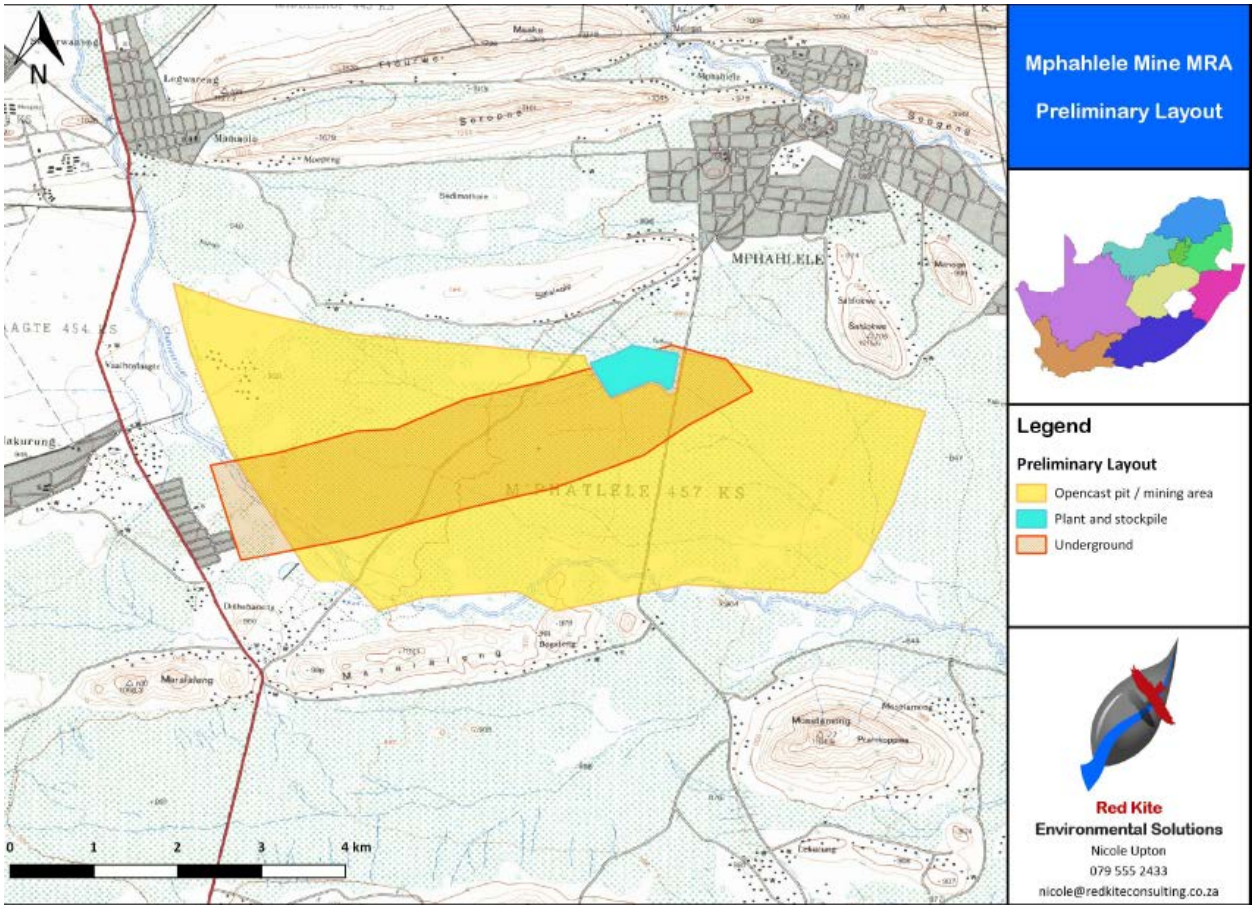

Figure 2: Preliminary Layout Map (courtesy Red Kite Environmental).

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).

According to Bergh (1999) no Stone Age sites or occurrences are known in the direct area, although some MSA sites, including rock paintings, are known in the larger geographical area around Polokwane (Bergh 1999:4-5). This includes a site called Grace Dieu and another called Mwulu's Cave. Sites in the open are usually poorly preserved and therefore have less value than sites in caves or rock shelters. During a 2017 HIA for the Groothoek Regional Water Scheme: Lebowakgomo Bulk Water Supply between Mphalele and Lebowakgomo, Van der Walt did record some individual MSA stone tools and small open-air scatters of tools

in the area (Van der Walt 2017: 5; 32). Evidence suggests that the region surrounding the project area has been inhabited during all periods of the Stone Age, including the Early Stone Age (ESA), Middle Stone Age (MSA) and Later Stone Age (LSA). This is most evident and extensively documented at the Cave of Hearths in the Makapans Valley (Van der Walt 2017: 29).

Although no Stone Age material or sites were identified in the area during the January 2021 assessment, it is possible that individual stone tools and small scatter could be present.

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.

There are a number of known Iron Age sites in the larger geographical area, identified and recorded during previous surveys (Roodt 2002 & 2003; Pistorius 2008; Karodia 2013; Coetzee 2017). These sites were located mostly around the foothills of the mountain range and hills in the area. Based on Tom Huffman's research work, the study area falls within the distribution area of various cultural groupings originating out of both the Urewe Tradition (eastern stream of migration) and the Kalundu Tradition (western stream of migration). This could include the Mzonjani facies of the Urewe Tradition, dating to between AD450 and AD750; the Doornkop facies of the Kalundu Tradition (AD750 to AD1000); the Eiland facies of the same tradition dating between AD1000 and AD1300; the Icon facies of the Urewe Tradition (AD1300-1500), as well as the Letaba facies of Kalundu, dating to between AD1600 – AD1840 (Huffman 2007).

Van der Walt recorded a single LIA stone-walled site during his 2017 assessment in the area (Van der Walt 2017: 5; 32). ***No Iron Age sites, features or material were found during the January 2021 assessment of the study area.***

The Lebowa area has been occupied by a mostly Northern Sotho population for centuries. This group is a part of a larger Northern Sotho-speaking community occupying a large area between the Limpopo River in the north, the Drakensberg in the east and the Sekhukhune Mountains in the west. Another important group in this region was the Bokone. Groups of the Bokone occupied the Lowveld between Phalaborwa and Bokgaga (near Leydsdorp) and the Bokone in time became scattered over a wide area of Limpopo and Mpumalanga. The main body of the Bokone seems to have fallen under the leadership of the Matlala ruling lineage when this group splintered into a multiplicity of groups during the 15th century and the 16th century. Some groups remained in the Lowveld and some ventured south and westwards so

that Koni groups settled in the later Ohrigstad, Lydenburg and Middelburg areas. The largest and most dominant group, however, settled in hillsides between Polokwane and Mokopane (Van der Walt 2017: 28).

This region is also known as Matlala-a-Thaba (Matlala of the Mountain). The Matlala royal house has experienced leadership conflicts during the 17th century. Splinter groups hereafter settled in Blouberg and Makgabeng whilst others occupied a number of mountains and river valleys such as Chuenespoort (Ga-Chuene) and ThabaTshweu (Witkoppen). It is assumed that during the period from AD1700 to AD1826 the Pedi took political control over the territory previously known as Lebowa, but to the south of the Strydpoort Mountains. The Pedi chiefdom peaked during the reign of Thulare, who died in 1824. A number of Sotho tribes, all of Kgaga origin, live to the north and to the south of the Strydpoort Mountains, between the Pedi to the east and the Tlokwa territory in Sekgosese to the west. The origin of the Kgaga people was Bokgaga, to the west of Ofcolaco. The Kgaga of Mphahlele broke away (around 1750) from Maake and travelled to the south and to the west across the Steelpoort River. They settled to the west of the Olifants River and to the south of the Strydpoort Mountains in the present Mphahlele village at Chuniespoort. The Kekana of Moletlane had already settled to the south-west of the area chosen by the Kgaga of Mphahlele. The Kgaga of Mphahlele remained in the area which is today known as the Lepelle-Nkumpi municipal area (Van der Walt 2017: 29).

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. The first European group to pass close by the area was that of Schoon in 1836, followed by the Voortrekkers from the 1840's onwards (Bergh 1999: 13-14).

During his 2017 HIA in the Mphalele/Lebowakgomo area Van der Walt did record some recent historical remains and cemeteries (Van der Walt 2017: 5; 32), but these are not located close to the Mphalele MRA study area. The community representatives that accompanied the Heritage Specialist during the 2021 assessment indicated that they are not aware of any cemeteries in the area of assessment and that most of these would be located close to or in the local townships/villages.

The oldest map for the farm Locatie van M'phahlele 457 KS that could be obtained from the Chief Surveyor General's database (www.csg.dla.gov.za) dates to 1894 (**CSG Document A10202**). The area was then called Locatie van M'Phatele and was situated in the Zoutpansberg District and Ward of Marabastad of the Zuid-Afrikaansche Republiek (Z.A.R). It was surveyed for the government of the Z.A.R. between June and November 1893. Although no historical sites or features are shown on the map, it does show the location of M'Phatele's kraals (homesteads) roughly where Mphalele Village is today.

Figure 3: 1894 map of Locatie van Mphalele 457KS (www.csg.dla.gov.za).

No historical sites or features were identified in the study area during the January 2021 assessment.

Results of the January 2021 Fieldwork

The Heritage Specialist was accompanied by representatives of the Mphalele community during the field assessment and to some extent this limited movement in and around the study area. However, they assisted in access to fairly large sections of the mining rights area and were able to provide some information on the cultural heritage resources in the area that could potentially be impacted by mining development.

According to them (Personal Communication: Jack? & Tirelo? 2021/01/14) there are no known graves or cemeteries in the area, except those located close to and inside the surrounding township/village areas. They are also not aware of any earlier stone-walled sites in the area, but indicated that they know of some close to the hills and mountains in the larger area surrounding the study and application area.

Sections of the study area has been impacted by recent and planned ongoing mining activities and if there were any sites, features or material of cultural heritage significance located here in the past it would have been extensively disturbed or destroyed as a result. The largest parts of the study and application area are relatively flat and open and has been heavily altered through past and recent agricultural activities. Crops such as maize were grown here. The area also used to be utilized for livestock grazing in the past. The impacts of the extensive

subsistence farming are evident on the ground, while aerial images (Google Earth) clearly show this as well. This area would also have been favored for agricultural purposes and livestock grazing during the prehistoric (archaeological) and historical past, with settlements traditionally located close to and on the hills and mountain ranges skirting the study area. The possibility of earlier LIA stone-walled settlement remains being present here is therefore fairly unlikely.

Dense vegetation in some sections did however make visibility difficult to some degree and it is possible that small, individual objects and cultural heritage remains could have been missed. It is however believed that large and significant archaeological and historical remains and features would have been visible and that the likelihood that these are present in the area is fairly small.

However, there is obviously always the possibility of unknown and invisible sites being present in the specific and larger area surrounding the mining operations. It is clear from earlier surveys in the larger geographical and neighboring areas that there are both prehistoric archaeological remains (Stone Age & Iron Age), as well as recent historical (homestead remains and graves/cemeteries) present. If any are found during future mining development, an expert should be called in to investigate and recommend on the best way forward.

Figure 4: A section of the current mining area.

Figure 5: Another view showing the impact of the mining on the area.

Figure 6: Another section of the mining area.

Figure 7: More evidence of the mining activities.

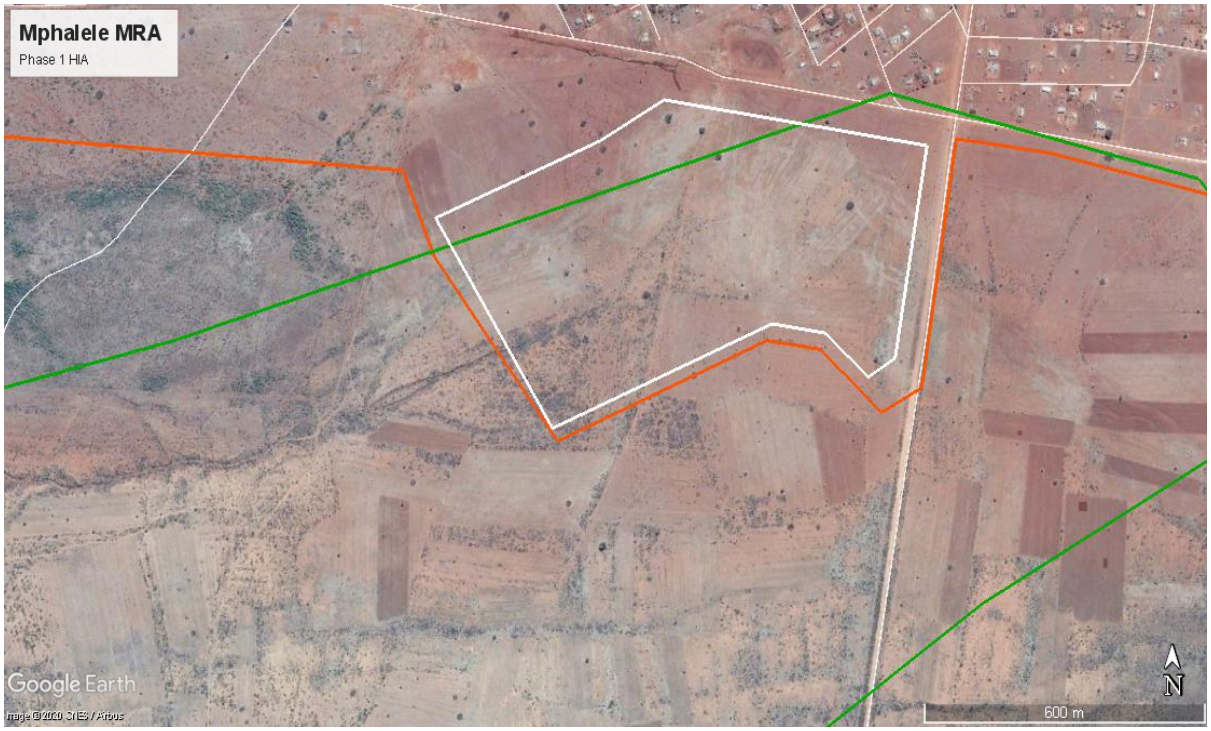

Figure 8: Aerial image of 2013 showing the mining had at that stage not commenced yet (Google Earth 2021).

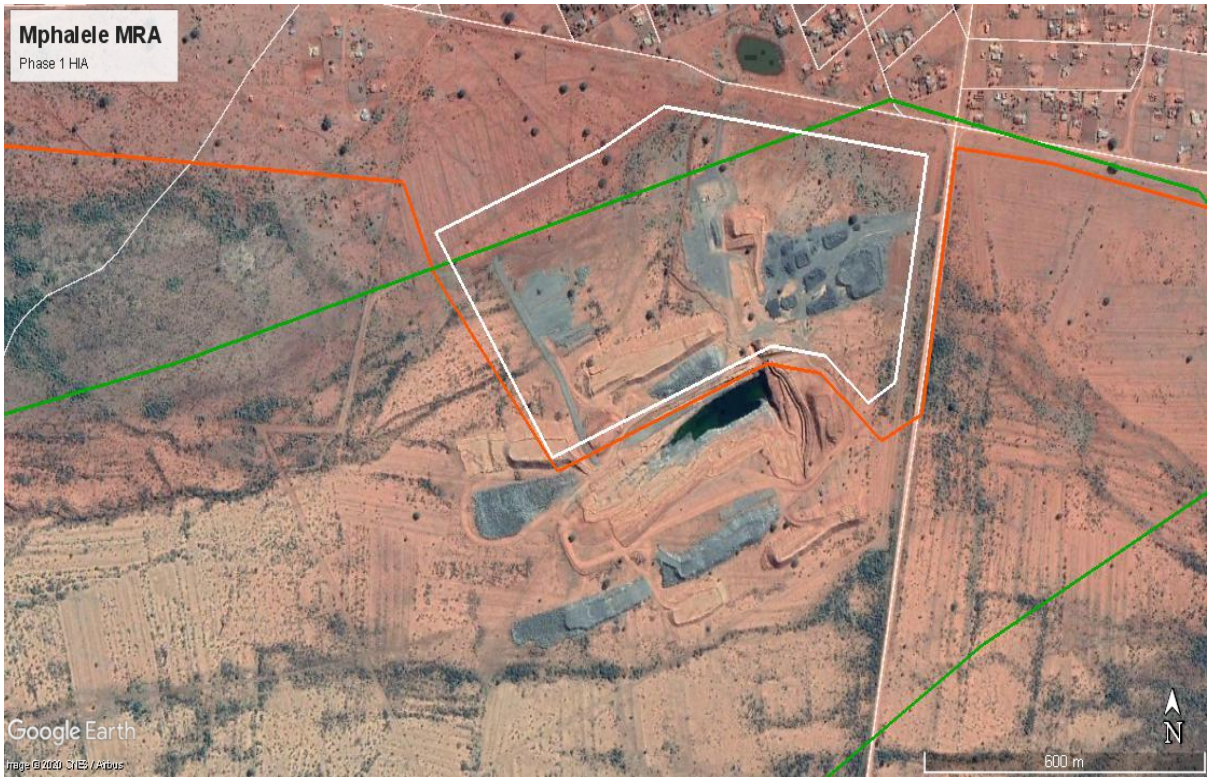

Figure 9: By 2019 the impact of mining on a section of the area is clearly visible (Google Earth 2021).

Figure 10: The fairly flat and open nature of the general area is visible here.

Figure 11: In some sections there are some dense stretches of vegetation.

Figure 12: The impacts of overgrazing and subsistence farming are evident.

Figure 13: Old ploughed fields in the area.

Figure 14: The extent of old/recent agricultural fields are visible in this image (Google Earth 2021).

Figure 15: Closer aerial view of a section of the study area clearly showing the extent of the old and recent agricultural fields covering most of the area (Google Earth 2021).

Figure 16: Only a few low rocky outcrops occur in the area.

Figure 17: General view of a part of the area.

Figure 18: A view showing the hills and mountains around the area Part of Mphalele Village is also visible.

Figure 19: General view of a section of the area.

Figure 20: Another section of the area.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by Red Kite Environmental Solutions (Pty) Ltd to undertake a Phase 1 HIA for the Mphalele Mining Rights Application (MRA). The study area is 60 km south-east of Mokopane and 50km south of Polokwane in the Limpopo Province.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. No sites were identified in the study area focused on in the January 2021 assessment.

Due to community issues and safety, the Heritage Specialist was accompanied by community representatives during the fieldwork. This hampered movement around the area and access to certain sections to some degree and this needs to be taken into consideration in the results obtained.

Sections of the study area has been impacted by recent and planned ongoing mining activities and if there were any sites, features or material of cultural heritage significance located here in the past it would have been extensively disturbed or destroyed as a result. The largest parts of the study and application area are relatively flat and open and has been heavily altered through past and recent agricultural activities. Crops such as maize were grown here. The area also used to be utilized for livestock grazing in the past. The impacts of the extensive subsistence farming are evident on the ground, while aerial images clearly show this as well. This area would also have been favored for agricultural purposes and livestock grazing during the prehistoric (archaeological) and historical past, with settlements traditionally located close to and on the hills and mountain ranges skirting the study area. The possibility of earlier LIA stone-walled settlement remains being present here is therefore fairly unlikely.

Dense vegetation in some sections made visibility difficult and it is possible that small, individual objects and cultural heritage remains could have been missed. It is however believed that large and significant archaeological and historical remains and features would have been visible and that the likelihood that these are present in the area is fairly small.

There is obviously always the possibility of unknown and invisible sites being present in the specific and larger area surrounding the mining operations. Earlier surveys in the larger geographical and neighboring areas showed that there are both prehistoric archaeological remains (Stone Age & Iron Age), as well as recent historical (homestead remains and graves/cemeteries) present. If any are found during future mining development, an expert should be called in to investigate and recommend on the best way forward.

It should also 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.

Finally, from Cultural Heritage point of view the Mining Rights Application should therefore be allowed to continue, taking cognizance of the above recommendations. Once the final layout and locations of mining infrastructure and activities have been determined then a more focused and detailed cultural heritage assessment should be undertaken in these areas.

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APPENDIX A
DEFINITION OF TERMS:

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

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

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B
DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aestetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

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

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

APPENDIX C
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.