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A DESKTOP HERITAGE IMPACT ASSESSMENT REPORT FOR THE SYLVANIA NORTHERN MINING PROSPECTING RIGHTS APPLICATION ON VARIOUS FARMS IN THE MOKOPANE MAGISTERIAL DISTRICT OF THE LIMPOPO PROVINCE

For:

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REPORT: APAC022/93

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SUMMARY

APelser Archaeological Consulting (APAC cc) was appointed by Prescali Environmental Consultants (Pty) Ltd, on behalf of Sylvania North Mining (Pty) Ltd, to conduct a Desktopbased Heritage Impact Assessment for the their Prospecting/Mining Rights Application on various farms in the Mokopane Magisterial District of the Limpopo Province. The study and project area is situated approximately 67km north-west of Mokopane & 61km north-west of Polokwane.

Background research indicates that there are several cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, and some in the study area and on a number of the farms that form part of the Application Area. These sites and heritage resources were identified during previous assessments conducted by APAC cc in the area. This report discusses the results of the background research and provides recommendations on the way forward at the end.

From a Cultural Heritage point of view it is recommended that the proposed Prospecting Rights Application be allowed to continue, taking into consideration the recommendations put forward at the end.

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1. INTRODUCTION

APelser Archaeological Consulting (APAC cc) was appointed by Prescali Environmental Consultants (Pty) Ltd, on behalf of Sylvania North Mining (Pty) Ltd, to conduct a Desktopbased Heritage Impact Assessment for the their Prospecting/Mining Rights Application on various farms in the Mokopane Magisterial District of the Limpopo Province. The study and project area is situated approximately 67km north-west of Mokopane & 61km north-west of Polokwane.

Background research indicates that there are several cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, and some in the study area and on a number of the farms that form part of the Application Area. These sites and heritage resources were identified during previous assessments conducted by APAC cc in the area.

The client indicated the location and boundaries of the study area and the assessment concentrated on this portion.

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;

It should be noted that No Field-Based Assessment was conducted as part of this Appointment and that the results and recommendations made in this report are based on the scrutiny of previous research and assessments in the area, as well as archival research and aerial images of the study area.

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 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 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 (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 m^2
- e. Any other category provided for in the regulations of SAHRA or a Provincial Heritage Authority

<u>Structures</u>

Section 34 (1) of the 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 and 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;
- 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.

<u>Human remains</u>

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 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 is normally 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.

No field work was undertaken as part of this assessment.

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 & PROJECT

The study and Prospecting Rights Application Area is located on various farms in the Mokopane Magisterial District of the Limpopo Province, and approximately 67km north-west of the town of Mokopane & 61km north-west of Polokwane. The farms included in the Application Area are:

Aurora 397LR Nonnenwerth 421LR Teneriffe 682LR Non Plus Ultra 683LR Gillemberg 861LR Altona 696LR Schaffhausen 689LR

The topography and general landscape of the study & application area can't be described from a personal observation perspective as no physical fieldwork was undertaken for this specific assessment. However, based on aerial images (Google Earth) of the area, as well as physical assessments done in the area previously, it is clear that the area is relatively flat and open with little or no rocky ridges and outcrops present. Portions have been extensively ploughed and changed agriculturally, while a number of residential villages are also present and had changed the natural and historical landscape to some degree. Cattle grazing have also impacted on the area, while sections are also characterized by sandveld. A number of small streams and tributaries of rivers such as the Matlala & Seepabana is present in parts of the study & application area.

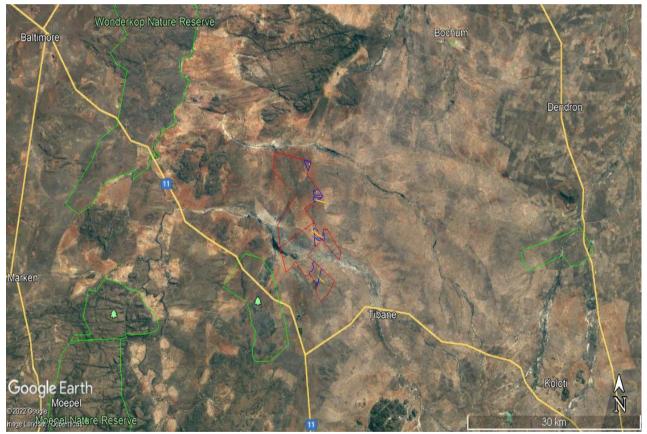


Figure 1: General location of the study & application area (Google Earth 2022).

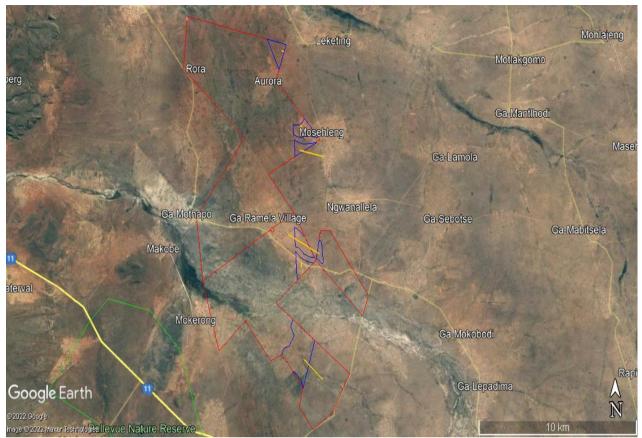


Figure 2: Closer view of the study & application area location (Google Earth 2022). The areas in blue indicate the proposed trenching and drilling areas, with the yellow lines the proposed access roads.

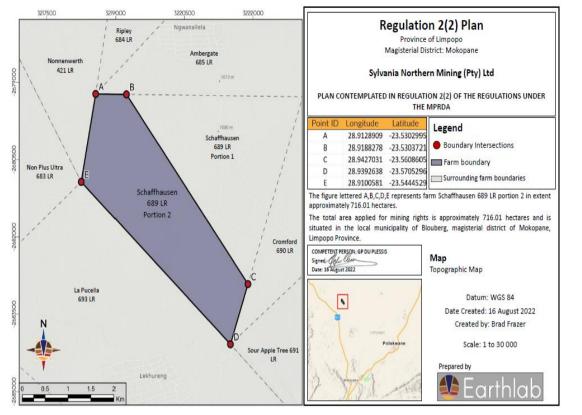


Figure 3: Regulation 2(2) Plan for the Schauffhausen 689LR Prospecting Rights Area (provided by Prescali Environmental Consultants)

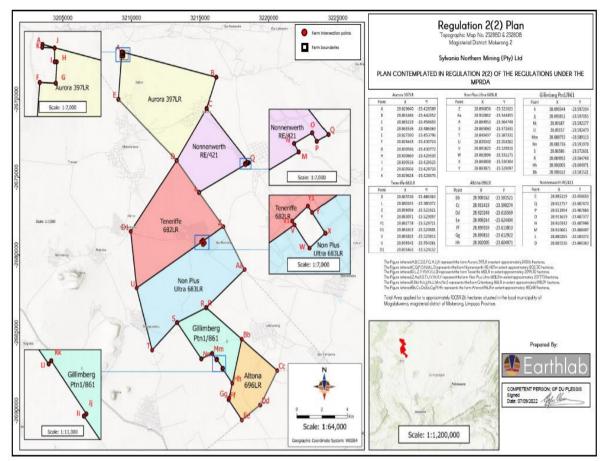


Figure 4: Regulation 2 (2) Plan for the other farms forming part of the Prospecting Rights Application (provided by Prescali Environmental Consultants)

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 in 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 Stone Age sites (including rock art) are known to occur in the immediate study area. The closest known Stone Age sites are located at near Blouberg on the Makgabeng Plateau dating to the Later Stone Age (Bergh 1999: 4). A very large number of significant rock art sites (numbering in their hundreds) are located on the Makgabeng Plateau and on farms directly north of the study area. These rock art sites are representative of San, Khoi and

Northern-Sotho rock art traditions (J.van Schalkwyk Pers.Comm 2012-12-11) and is located on farms such Disseldorp 369LR and Bayswater 370LR north of the farms that form part of the current study (Eastwood et.al 2004; 2005), as well as other farms including Groenepunt, Kirstenspruit and Rosamond.

The possibility of finding Stone Age material in the study areas is always a possibility. These would however more specifically be individual artifacts and small scatters of artifacts in open-air contexts if they are present.

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal 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) 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.

There are no known Iron Age sites in the immediate study area. Once again a large number of EIA and LIA sites are known to exist to the north of the study area on the Makgabeng Plateau (J.van Schalkwyk Pers.Comm. 2013-10-15).

Tom Huffman's research work shows that EIA, MIA and LIA sites, features or material could possibly be found in the area. This could include the so-called Happy Rest facies of the Kalundu Tradition dating to between AD500 and AD750 (Huffman 2007: 219); Diamant facies of the same tradition dating to between AD750 and AD1000 (p.223); Eiland facies of Kalundu dating to between AD1000 and AD1300 (p.227); the Icon facies of the Urewe Tradition dating to between AD1300 & AD1500 (p.183) and finally the Letsibogo facies of the same tradition dating to between AD1500 and AD1700 (Huffman 2007: 187).

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 Coenraad de Buys in 1821 and again 1825, followed by the Voortrekkers after 1844 (Bergh 1999: 12; 14). By 1848 the area formed part of the Soutpansberg Magisterial District (Bergh 1999: 17).

Results of previous assessments in the area

During previous assessments in the area by the author of this report (See APAC013/71 & APAC014/47) some cultural heritage sites and features were identified. These included

mainly recent historical settlement remains as well as graveyards and graves. No Stone Age or Iron Age sites or remains were identified during these previous field assessments.

The following sites were identified and recorded in the area during the 2013 & 2014 assessments:

Site 1 – Ruins of recent historical settlement: S23.42191 E28.84669 Site 2 – Ruins of recent historical settlement: S23.41329 E28.85336

Both these sites are on the farm Cracouw and are located outside of the current study & Application Area.

Sites 3 & 4 – Sections of low, stone-packed walls dating to recent historical periods: (3) S23 36 18.50 E28 54 19.80 & (4) S23 36 17.30 E28 54 21.20.

Their Cultural Heritage Significance was seen as Low and no Mitigation Measures were required.

Site 5 – Consists of 2 graveyards & the remains of a recent historical settlement: S23 34 20.70 E28 51 48.20

Sites 6 & 7 - Contains a single grave & 3 larger cemeteries respectively: (6) S23 34 14.20 E28 51 57.70 (grave); (7) S23 32 49.40 E28 54 35.10 (3 cemeteries).

Graves always carry a High Cultural Significance rating and should any of the recorded sites (and possible unmarked or unknown ones) be impacted by the proposed miningrelated activities, mitigation measures will have to be implemented. This could either be the in situ preservation of the sites and graves, or the exhumation and relocation of the graves after social consultation and the requiring of the necessary permits. The older settlement remains should also be avoided if possible as they might contain unmarked burials (still-born or young infants/children) in close proximity, but if this is not possible these sites should also be recorded in more detail through social consultation and mapping.

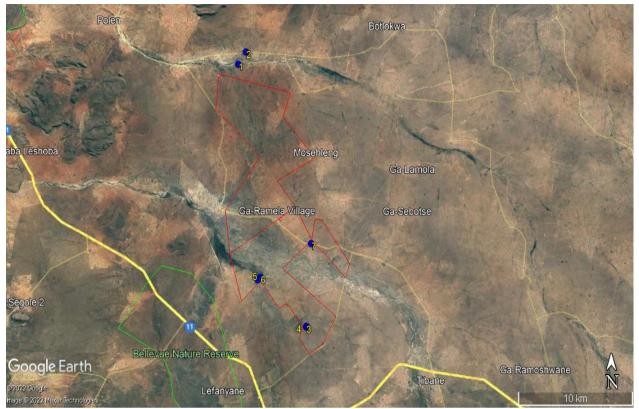


Figure 5: Location & distribution of sites identified during the 2013 & 2014 assessments (Google Earth 2022).



Figure 6: A view characteristic of the general area with a small rural village visible (picture taken in 2013).



Figure 7: A typical view of the landscape and vegetation in the area (taken in 2014).



Figure 8: The topography of the area is relatively flat and open with some areas showing the effects of overgrazing (taken in 2013).



Figure 9: Large sections of the area have been altered through agriculture and will therefore have no impacts on any heritage sites (taken in 2014).



Figure 10: Another view of a section of the study area. Open, eroded and overgrazed areas and rural residential developments are the norm (taken in 2014).



Figure 11: A section of low stone walling found in the area during 2014 (Sites 3 & 4).



Figure 12: Recent historical settlement remains in the area found in 2014 (Site 5).



Figure 13: The Site 5 cemetery recorded in 2014.



Figure 14: The single grave (Site 6) recorded in 2014.



Figure 15: One of the three cemeteries found at Site 7 during 2014.

No physical field assessment was undertaken for the Sylvania North Mining Prospecting/Mining Rights Application on Schauffhausen and the other farms that form part of the Study & Application Area. It is therefore not possible to say if there are any cultural heritage (archaeological and/or historical) sites, features or material located here that could possibly be negatively impacted by the proposed prospecting and related future mining activities here. Although some sites were found in the area on some of the other farms that make up the application area, it is always possible that many were missed during the earlier assessments as a result of various factors. These would include dense vegetation and access issues during the 2013 & 2014 studies.

It is however evident from the desktop study that archaeological/historical sites and finds do occur in the geographical landscape within which the study area is located. Based on this it is possible that open-air Stone Age sites could be found in the area, most likely in the form of individual stone tools or small scatters. The possibility of Iron Age sites (especially stonewalled Late Iron Age sites) in the areas can also not be excluded, although this is less likely. The likelihood of recent historical sites and features being present in the area is High, and will most be represented by the remnants of individual homesteads, rural settlements and both formal & informal cemeteries, individual graves and even previously unknown & unmarked graves.

The following is recommended on the way forward:

That the proposed Sylvania Northern Mining (Pty) Ltd Prospecting/Mining Rights Application on various farms in the Mokopane Magisterial District, 67km north-west of

Mokopane and 61km north-west of Polokwane, be allowed to continue with the condition that once the final detailed locations of the Prospecting Boreholes and Trenches has been determined that detailed field-based assessments be carried out in these areas to determine the impacts of these activities on any possible cultural heritage (archaeological and/or historical) sites and remains. Any resultant proposed future mining activities and related developments and operations will have to then be assessed as well.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC cc) was appointed by Prescali Environmental Consultants (Pty) Ltd, on behalf of Sylvania North Mining (Pty) Ltd, to conduct a Desktopbased Heritage Impact Assessment for the their Prospecting/Mining Rights Application on various farms in the Mokopane Magisterial District of the Limpopo Province. The study and project area is situated approximately 67km north-west of Mokopane & 61km north-west of Polokwane.

Background research indicates that there are several cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, and some in the study area and on a number of the farms that form part of the Application Area. These sites and heritage resources were identified during previous assessments conducted by APAC cc in the area.

During previous assessments in the area some cultural heritage sites and features were identified. These included mainly recent historical settlement remains as well as graveyards and graves. No Stone Age or Iron Age sites or remains were identified during these previous field assessments. No physical field assessment was undertaken for the Sylvania North Mining Prospecting/Mining Rights Application on Schauffhausen and the other farms that form part of the Study & Application Area. It is therefore not possible to say if there are any cultural heritage (archaeological and/or historical) sites, features or material located here that could possibly be negatively impacted by the proposed prospecting and related future mining activities here.

It is also evident from the desktop study that archaeological/historical sites and finds do occur in the geographical landscape within which the study area is located. Based on this it is possible that open-air Stone Age sites could be found in the area, most likely in the form of individual stone tools or small scatters. The possibility of Iron Age sites (especially stone-walled Late Iron Age sites) in the areas can also not be excluded, although this is less likely. The likelihood of recent historical sites and features being present in the area is High, and will most be represented by the remnants of individual homesteads, rural settlements and both formal & informal cemeteries, individual graves and even previously unknown & unmarked graves.

It is important to note here that Graves always carry a High Cultural Significance rating and should any of the recorded sites (and possible unmarked or unknown ones) be impacted by the proposed mining-related activities, mitigation measures will have to be implemented. This could either be the in situ preservation of the sites and graves, or the exhumation and

relocation of the graves after social consultation and the requiring of the necessary permits. Any recent historical homestead/settlement remains should also be avoided if possible as they might contain unmarked burials (still-born or young infants/children) in close proximity, but if this is not possible these sites should also be recorded in more detail through social consultation and mapping.

Finally it can be concluded that the proposed Sylvania Northern Mining (Pty) Ltd Prospecting/Mining Rights Application on various farms in the Mokopane Magisterial District in the Limpopo Province should be allowed to continue with the condition that once the final detailed locations of the Prospecting Boreholes and Trenches has been determined that detailed field-based assessments be carried out in these areas to determine the impacts of these activities on any possible cultural heritage (archaeological and/or historical) sites and remains. Any resultant proposed future mining activities and related developments and operations will have to then be assessed as well.

8. REFERENCES

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Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.

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.