



Comprehensive and Professional Solutions for all Heritage Related Matters
CK 2006/014630/23 **VAT NO.: 4360226270**

**A HIA REVIEW AND GRAVES ASSESSMENT REPORT
FOR GRAVES TO BE EXHUMED AND RELOCATED AT THE LEEUWPAN
COLLIERY NEAR DELMAS (MOABVELDEN BLOCK ON PORTION 1 OF
MOABVELDEN 248IR), MPUMALANGA**

For:

*Synergistics Environmental Services (Pty) Ltd
P.O.Box 1596
CRAMERVIEW
2060*

**REPORT: APAC014/38
PROJECT Reference No: 750.05026.00017**

by:

***A.J. Pelsler
Accredited member of ASAPA
Professional Member SASCH***

August 2014

**P.O.BOX 73703
LYNNWOOD RIDGE
0040
Tel: 083 459 3091
Fax: 086 695 7247
Email: pelseranton@gmail.com**

Member: AJ Pelsler BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

©Copyright

APELSER ARCHAEOLOGICAL CONSULTING (APAC) cc

The information contained in this report is the sole intellectual property of APAC cc. It may only be used for the purposes it was commissioned for by the client.

DISCLAIMER:

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

The South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report and clients are advised not to proceed with any action before receiving these.

SUMMARY

APELSER ARCHAEOLOGICAL CONSULTING cc was appointed by Synergistics Environmental Services (Pty) Ltd, on behalf of Exxaro Coal's Leeuwan Coal Mine, to conduct a review of previous Heritage Impact Assessments (2 studies were provided namely a 2006 and 2012 Report by Van Schalkwyk & Van Vollenhoven respectively) for the Leeuwan Colliery, while the assessment of two grave sites (Numbered 1 & 2) that will be impacted by expanding Mining Operations (Moabsvelden Block on Portion1 of Moabsvelden 248IR) and requires exhumation and relocation was also to be undertaken.

This report is the result of the above mentioned review, as well as the assessment of the two relevant grave sites. In total 17 sites (13 grave sites and 4 historical homesteads/farmsteads) were identified in the earlier studies. Mitigation measures regarding these sites were put forward. It should also be mentioned that the 2012 report by van Vollenhoven included information on sites recorded by and included in a 2007/8 report by Pistorius. The 2014 assessment by Pelsler focused mainly on the 2 grave sites that will be impacted by mining development now. A total of approximately 47 graves are contained in these two graveyards.

A number of recommendations are put forward at the end of this report in terms of the exhumation and relocation of the impacted graves, while required mitigation measures in terms of the other identified sites are also provided.

CONTENTS

	page
SUMMARY	3
CONTENTS.....	4
1. INTRODUCTION	5
2. TERMS OF REFERENCE	5
3. LEGALISLATIVE REQUIREMENTS	6
4. METHODOLOGY	9
5. DESCRIPTION OF THE AREA.....	10
6. DISCUSSION.....	15
7. CONCLUSIONS AND RECOMMENDATIONS	36
8. REFERENCES	36
9. APPENDIX A.....	38
10. APPENIDX B	39
11. APPENDIX C.....	40
12. APPENDIX D.....	41
13. APPENDIX E	42

1. INTRODUCTION

APELSER ARCHAEOLOGICAL CONSULTING cc was appointed by Synergistics Environmental Services (Pty) Ltd, on behalf of Exxaro Coal's Leeuwpan Coal Mine, to conduct a review of previous Heritage Impact Assessments (2 studies were provided namely a 2006 and 2012 Report by Van Schalkwyk & Van Vollenhoven respectively) for the Leeuwpan Colliery, while the assessment of two grave sites (Numbered 1 & 2) that will be impacted by expanding Mining Operations (Moabsvelden Block on Portion1 of Moabsvelden 248IR) and requires exhumation and relocation was also to be undertaken.

In total 17 sites (13 grave sites and 4 historical homesteads/farmsteads) were identified in the earlier studies. Mitigation measures regarding these sites were put forward. It should also be mentioned that the 2012 report by van Vollenhoven included information on sites recorded by and included in a 2007/8 report by Pistorius. The 2014 assessment by Pelsler focused mainly on the 2 grave sites that will be impacted by mining development now. A total of approximately 47 graves are contained in these two graveyards.

During the assessment of the two impacted grave sites the specialist was accompanied by a staff member of Exxaro/Leeuwpan, who indicated the location of these sites.

2. TERMS OF REFERENCE

The Terms of Reference for the Project are:

1. Assess, review and update the 2007 Phase 1 heritage study conducted. The updated heritage study will involve the following tasks and outputs:

- *Review of previous heritage study*

- Desktop study (archival and historical) of the study area during which known significant heritage features (archaeological and palaeontological) within and in the direct proximity of the study areas can be identified;

- The fieldwork will comprise a walkthrough of the entire study area i.e. the footprint of the area to be impacted upon. Any located heritage sites and graves within this area would be recorded (with GPS, photographed and described); and

- An updated heritage impact assessment report will follow during which the identified heritage sites and graves (from both the desktop study and fieldwork) will be listed, and the impact of the proposed mining on the identified heritage sites will be assessed.

2. Graves Action Plan

Compile and submit a removal and relocation of graves action plan and once the report is approved by the client it must be submitted to the relevant authorities.

3. Removal and relocation of graves

The removal and relocation of graves will involve the following tasks:

· Apply for a permit (including all required supporting documentation) to relocate the graves in terms of the NHRA.

· Apply for any other grave relocation permits (including all required supporting documentation) required by the following authorities:

South African Heritage Resources Agency (SAHRA);
Provincial Department of Health;
Provincial Department of Local Government).
Local Municipality.

· Implement the graves action plan based on the heritage studies;
· Facilitate the removal and relocation of the graves on the farms Weltevreden and Moabsvelden:

Once all permits have been obtained, exhume the human remains in accordance with permit conditions,

Re-inter human remains in accordance with relevant permit conditions and next of kin and community requirements.

4. Submission of final reports to the relevant authorities

When the grave exhumation and reinternment process has been completed, a final report presenting the results and conclusion of the Leeuwanpan Grave Relocation project will be submitted to the authorities and Exxaro.

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 or 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.)

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 on these possible heritage resources. 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. 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 National Health Act (Act 61 of 2003) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

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 consulted in this regard are indicated in the bibliography.

4.2 *Field survey*

As part of the HIA review and Grave Site assessment, a field survey was undertaken in the areas where the two grave sites (Numbered 1 & 2) that are required to be exhumed and relocated are situated. The grave sites were photographed and details on the number of graves on each site, as well as details on dates, families and other relevant information recorded.

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. Full social consultation will be undertaken as part of the grave relocation process in order to identify descendants and to obtain consent for the exhumation & relocation.

4.4 *Documentation*

All sites, objects, features and structures identified are documented according to the general minimum standards accepted by the archaeological profession. 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

APELSEER ARCHAEOLOGICAL CONSULTING cc was appointed by Synergistics Environmental Services (Pty) Ltd, on behalf of Exxaro Coal's Leeuwpaan Coal Mine, to conduct a review of previous Heritage Impact Assessments (2 studies were provided namely a 2006 and 2012 Report by Van Schalkwyk & Van Vollenhoven respectively) for the Leeuwpaan Colliery, while the assessment of two grave sites (Numbered 1 & 2) that will be impacted by expanding Mining Operations (Moabsvelden Block on Portion1 of Moabsvelden 248IR) and requires exhumation and relocation was also to be undertaken.

The Leeuwpaan Coal Mine study area is located on portions of the farms Leeuwpaan 246 IR, Moabsvelden 248IR, Rietkuil 249IR, Kenbar 257IR, Goedgedacht 226IR & Wolvenfontein 244IR. The two grave sites that had to be assessed and will be exhumed and relocated are situated in the so-called Moabsvelden Block.

The topography of the area is relatively flat, and in general the area is characterized by open rolling grassveld, with very little tree cover except for clumps of bluegum and other trees. The area (some portions) were used extensively in the past for agricultural purposes (ploughing/crop growing and cattle/livestock), and as a result the area has been disturbed in the recent past. The historic farmsteads/homesteads and the various graveyards (European farmers and farmworker graves) are related to this phase of human utilization and evidence of prehistoric (archaeological) human presence would have been disturbed or destroyed to a large degree as a result of recent activities. Mining operations in certain portions have also impacted to a very large degree on the archaeological and historic nature of the area. The areas where the two cemeteries are situated lie on old farmland portions and are in the way of expanding opencast coal mining operations.

Vegetation cover was fairly dense during the survey, and this made visibility difficult. It is therefore possible that features such as low, stone packed walls or graves could have been missed. This aspect needs to be considered during any future development work done.

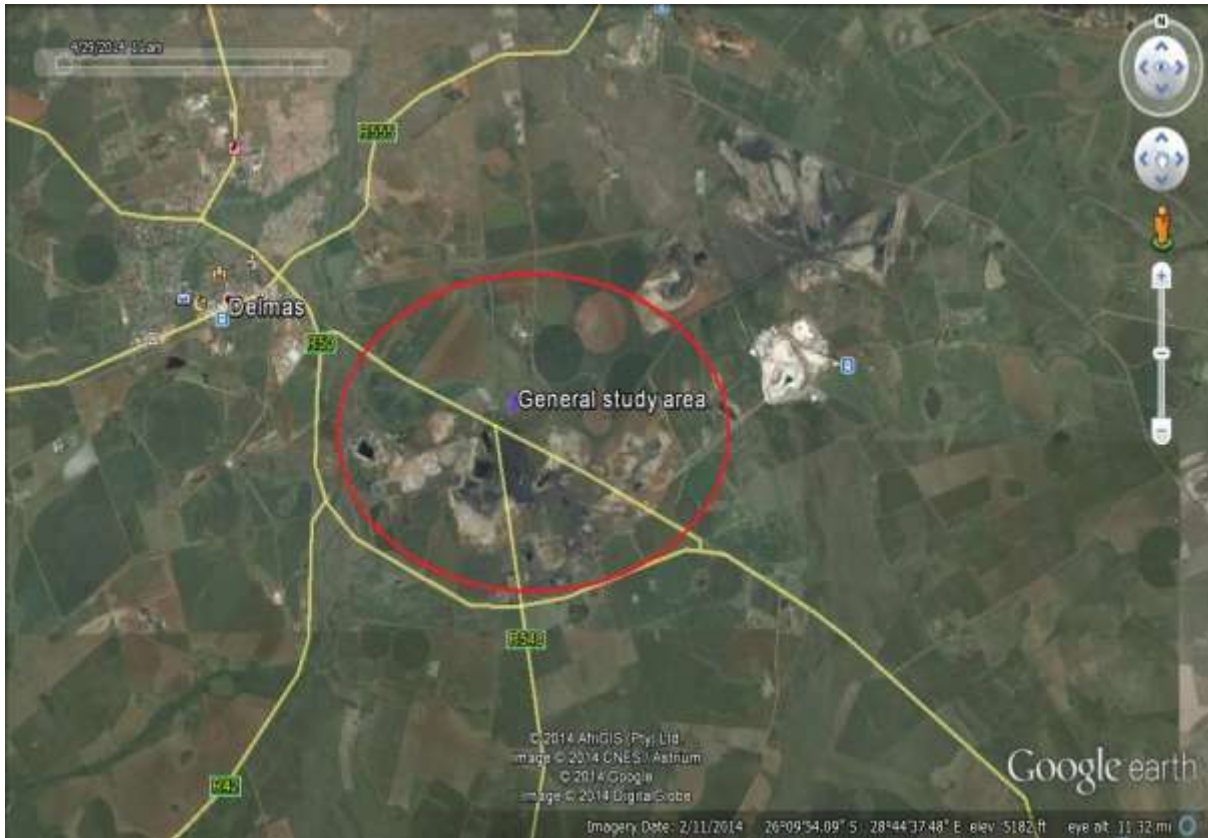


Figure 1: General aerial view of study area (Google Earth 2014).



Figure 2: Closer view of a portion of the study area. Note the disturbed nature of the area (Google Earth 2014).

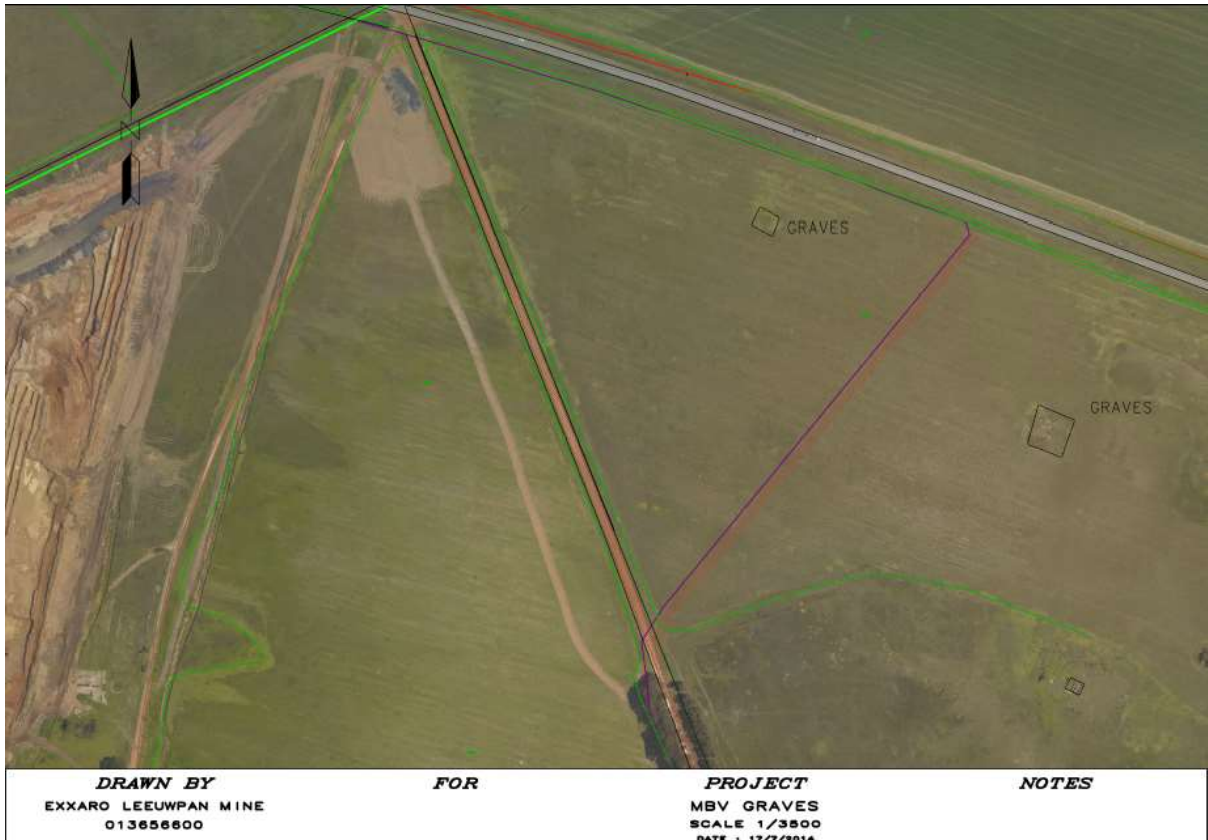


Figure 3: Map of area showing the location of the two grave sites that needs to be relocated. Map provided by Exxaro Leeuwpan.



Figure 4: A view of a section of the area. Note the mine dump.



Figure 5: Another section. Note the grass cover and clumps of trees.



Figure 6: A view of a section of the study area close to where the two graves sites are located. Note the open nature and grass cover. This is old farmland.

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).

The closest Stone Age occurrence found to the Delmas area is the Late Stone Age site at Fort Troje situated close to Cullinan (Bergh 1999:4). The fact that there are no know Stone Age sites or occurrences close to or in the study area might only indicate a lack of research. However, no Stone Age stone tools were identified during the 2014 archaeological assessment of the proposed development area. It is possible that single, scattered, tools might be recovered during development work, although this might be chance finds only.

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.

Late Iron Age sites have been identified in the Delmas area (Bergh (1999: 7). Other known Iron Age features close to the study have been identified to the west of Bronkhorstspuit and in the vicinity of Bethal (Bergh 1999: 7). These all are dated to the Late Iron Age. No indication of metal smelting was identified at any of these sites (Bergh 1999: 7-8). During the *difaqane* (1832) the Zulu moved through this area in order to attack the Ndebele (Bergh 1999: 11).

According to Pistorius the Eastern Highveld had probably not been occupied by Early Iron Age communities, but was occupied by Late Iron Age farming communities such as the Sotho, Swazi and Ndebele who established stone walled settlement complexes. Seemingly these sites are more common towards the eastern perimeters of the Eastern Highveld. Small, inconspicuous stone walled sites have been observed along the Olifants River but are an exception and not the rule (Pistorius 2010: 16-17).

Once again no Iron Age sites, features or objects were identified during the 2014 assessment of the study area.

The historical period usually starts with the moving into an area of people that were able to read and write and record histories such as early European travellers and/or missionaries. The earliest European group to visit the area was that of one Robert Scoon who passed through during 1836. In 1847 Dr. David Livingstone also visited the area during his travels. The parties of the Voortrekkers Louis Tregardt and Hans van Rensburg also moved through here during 1836 (Bergh 1999: 13-14). European farmers only settled in the study area between 1841 and 1850 (Bergh 1999: 15).

Delmas was laid out in 1907 on the farm Witklip ('white stone') which was divided into 192 residential stands, 48 smallholdings of 4 ha each and a commonage of 138ha. The farm belonged to Frank Dumat (a Frenchman). He named the town Delmas which is derived from 'mas' which means "small farm" in French. In 1909 the government added another 5 500 ha to Frank Dumat's original rural settlement (Pistorius 2007: 18).

Results of previous studies and 2014 assessment

The results of the previous studies will be discussed here, providing evidence on the sites recorded, as well as the mitigation measures provided in terms of the impact of mining development on these sites. The two grave sites assessed will also be discussed in some detail, while the way forward in terms of their exhumation & relocation will also be provided. Finally a map showing the distribution of these sites over the study area will also be given.

The information is taken from Van Vollenhoven's 2012 Report (done for GCS and provided by Exxaro Leeuwpán) which contains information on sites identified by himself, Van Schalkwyk (2006) and Pistorius (2007). These sources are indicated in the Reference Section of the current document.

Site 1

This large graveyard is located found in close proximity to a blue gum plantation. It contains at least 63 graves according to van Vollenhoven, while Pistorius indicated more than 50. The graves have all types of dressings or borders and headstones, including cement, stone, brick and granite. Many of the graves have no legible inscriptions on their headstones and are therefore unknown. Those with dates range between 1972 and 2005. Some of the families identified include Mtsweni, Sithole, Masilela, Mabena and Kgomo.

GPS: 26°11.426'S 28°46.301'E – Pistorius Site 4.

Site 2

This is another graveyard located within a maize field and in close proximity to Site 1. Van Vollenhoven indicated the presence of at least 6 graves, although Pistorius (his Site 5) counted at least 20. Some of the graves have cement borders and headstones. One has a brick border and two of them have a metal fence around them. Two of the graves are unknown in terms of identity and date of death, while the others range between 1968 and 2003. Families identified include Mahlangu and Mabena.

GPS: 26°11.453'S 28°46.272'E.

Site 3

This is a large grave yard containing at least 99 graves. The types of grave dressing and headstones include granite, cement, stone and brick. The dates of death range between 1947 and 1973, while some are unknown. Family names recorded include Mabena, Ngoma, Ndlopfu, Mzizi and Malaza.

GPS: 26°10.815'S 28°42.251'E.

Site 4

This is yet another graveyard containing at least 90 graves. Grave dressing and headstones range between granite, stone or cement. Although not all the grave have headstones have

legible inscriptions, those that does dates of death ranging between 1972 and 2004. Familiess identified include Ngomalwa, Mapos and Mahlangu.

GPS: 26°08.665'S 28°46.466'E.

Site 5

The Site 5 graveyard contains at least 31 graves according to Van Vollenhoven, and Van Schalkwyk (his Site 1) counted more than 30. Stone and/or cement grave dressings and headstones dominate. Most of the graves are unknown, but some have inscriptions that date them to between 1939 and 1940. Families identified include Makau, Diale and Mackau.

GPS: 26°09.722'S 28°45.732'E.

Site 6

This is another graveyard, and contains approximately 20 graves. There are three types of dressing and headstones namely stone, brick or cement. Most of the graves are unknown and only one date of death was identified (1958). The family names that were identified include Mbonau, Mbonani and Mulitana. **This site is Number Graveyard 2 and is one of the sites that had to be assessed in the Moabsvelden Block and that have been earmarked for relocation (See separate discussion).**

GPS: 26°08.286'S 28°47.719'E.

Site 7

Site 7 relates to Van Schalkwyk's Site No 2. It contained 3 graves. No photograph was included in his report.

GPS: 26°09.833'S 28°45.583'E.

Site 8

Site 8 relates to Site No 01 from the Pistorius report and according to him contained more than 100 graves.

GPS: 26°07.958'S 28°46.522'E.

Site 9

This is Site No 02 from the Pistorius report. Pretorius indicated that there were more than 50 graves.

GPS: 26°08.667'S 28°46.640'E.

Site 10

Site 10 is Site No 03 from the Pistorius report. He counted more than 50 graves. According to Van Vollenhoven, Pistorius did not include a photograph of the site in his report.

GPS: 26°09.337'S 28°47.121'E.

Site 11

This graveyard was identified by Mine staff, and no photograph was provided. The number of graves is unknown.

GPS: 26°07.920'S 28°45.690'E.

Site 12

The Site 12 graveyard was also identified by Mine staff. No photograph was provided and the number of graves is unknown.

GPS: 26°11.062'S 28°44.527'E.

Site 13

Once again Site 13 was identified by Mine staff. No photograph was provided and the numbers of graves are unknown. This is Graveyard 1 – one of the sites assessed in 2014 and earmarked for exhumation and relocation (See separate discussion).

GPS: 26°08.380'S 28°47.865'E.

Graves always are regarded as having a High cultural significance. In this case there are three categories of graves being those older than 60 years, those younger than 60 years and those of an unknown date. These graves are of a local significance and are therefore given a rating of Grade IIIB. It may therefore be mitigated.

Grave and the impacts of any possible development on them can be handled in two ways. The first is to fence it off, preserve in situ and the drafting and implementation of a Graves Management Plan. The second is the exhumation and relocation of the graves if the development cannot avoid the graves and there is therefore a direct and negative impact on them. Before exhumation a process of social consultation is required in order to find the possible descendants/families and obtain consent for the exhumation and relocation. Permits are also required from SAHRA, the Provincial Health Department and Local Authorities before the work can commence.

Site 14

Site 14 was recorded by Dr. Julius Pistorius and is a historical farm complex with at least three buildings older than 60 years. The site is located on the property of a modern farm homestead on Moabsvelden 248. The homestead includes the following:

1. the historical complex comprising four structures.
2. at least two modern farm residences with associated outbuildings.
3. modern farm infrastructure comprising several sheds.
4. shacks occupied by labourers, with some partially demolished

The historical complex includes the following four structures:

1. a shed which was used for milking cows (milk shed).
2. a shed which was probably used to store fodder, wagons and other farm implements (wagon shed).
3. a large residence.
4. a small residence.

According to Pistorius these structures were constructed contemporary and they respectively served as the main dwelling, a second smaller dwelling and sheds which were part of a farm homestead, probably dating between the 1930's or 1940's. None of the structures were altered significantly on the outside and all the structures are in a relatively good condition. The various buildings were constructed with the same building material and all the structures adhere to a single architectural style.

GPS: 26°08.472'S 28°47.333'E.

The site has a **Medium** cultural significance. It has a general local significance and is therefore given a rating of Grade B (IVB). It may therefore be mitigated. The structures may be demolished, but only after it has been documented by a heritage expert. This would include detailed photographs and drawing a site map and simple outline drawings of each.

Site 15

This site was also identified by Pistorius and consists of a historical farm building older than 60 years of age. The site is situated on Rietkuil 249 and is in a severely dilapidated state. It was constructed with clay bricks and cement and fitted with a pitched corrugated iron roof. Parts of the walls of the house were apparently recently plastered with a fresh layer of cement as the windows were removed from the house and closed with brick and cement. The structure is currently used as a sheep pen. It is associated with a two roomed outbuilding and a stand for a water tank. Both structures, like the house, are severely dilapidated.

GPS: 26°11.360'S 028°46.382'E.

The site has a **Medium** cultural significance. It has a general local significance and is therefore given a rating of Grade B (IVB). It may therefore be mitigated. The structure may be demolished, but only it has been documented by a heritage expert. This would include detailed photographs and drawing a site map and simple outline drawings of each.

Site 16

Site 16 was identified by Pistorius. It consists of two historical farm buildings older than 60 years and is located on Wolwenfontein 244. It was renovated extensively in the more recent past and probably dates from the 1940's, but has lost much of its original fabric. The house

most likely originally consisted of four rooms including a kitchen, sitting room and two bedrooms.

GPS: 26°10.700'S 28°42.947'E.

The site has a **Medium** cultural significance. It has a general local significance and is therefore given a rating of Grade B (IVB). It may therefore be mitigated. The structures may be demolished, but only it has been documented by a heritage expert. This would include detailed photographs and drawing a site map and simple outline drawings of each.

Site 17

This was another site identified by Pistorius and represents a historical farm house that might be just slightly older than 60 years of age. It is severely dilapidated and is structurally unsafe. The house is located on Wolwenfontein 244 and was built with face bricks and cement. It is covered with a pitch corrugated iron roof and fitted with steel window frames. It was connected in more recent times with a water stand and a nearby shed. It is possible that the house, shed and water tank may date from the same time period, namely the 1940's or the 1950's.

GPS: 26°10.739'S 28°42.957'E.

The site has a **Low** cultural significance. It has a general local significance and is therefore given a rating of Grade C (IVC). This report is therefore seen as ample mitigation. The structure may be demolished without any further mitigation.

Site 18

This site was identified during the 2014 assessment, and is situated close to the so-called Pit OJ of the Coal Mine, and in an area that contains evidence of farming activities. The site consists of the foundation of a stone-built structure/platform. The function and age of this feature could not be determined, but it is possible that it represents the remains of a small labourer dwelling. No other features were identified. Dense grass and other vegetation made visibility difficult, and it is possible that other unknown features (such as low stone-packed or unmarked graves) could still be located during development activities. Should this occur then these would have to be recorded and assessed in terms of their significance and the mitigation measures that might or might not be required.

GPS: S26 09 48.2 E28 45.13.3.

The site has a **Low** cultural significance. It has a general local significance and is therefore given a rating of Grade C (IVC). This report is therefore seen as ample mitigation. The structure may be demolished without any further mitigation.



Figure 7: Site 1 (Van Vollenhoven 2012).



Figure 8: Site 2 (Van Vollenhoven 2012).



Figure 9: Site 3 (Van Vollenhoven 2012).



Figure 10: Site 4 (Van Vollenhoven 2012).



Figure 11: Site 5 (Van Vollenhoven 2012).



Figure 13: Site 6 (Van Vollenhoven 2012).



Figure 14: Site 8 (Van Vollenhoven 2012).



Figure 15: Site 9 (Van Vollenhoven 2012).



Figure 16: Site 14 (Van Vollenhoven 2012).



Figure 17: Site 15 (Van Vollenhoven 2012).



Figure 18: Site 16 (Van Vollenhoven 2012).



Figure 19: Site 17 (Van Vollenhoven 2012).



Figure 20: Site 18.

Grave Sites Assessment

Both sites are located in the so-called Moabsvelden Block on Portion 1 of Moabsvelden 248IR, and will be impacted on by expanding mining operations. The sites and the graves on them will therefore have to be exhumed and relocated. Grave Site 1 relates to Site 13 in Van Vollenhoven's 2012 report, while Grave Site 2 relates to Site 6 in his report.

Grave Site 1

This site contains approximately 35 graves, many with headstones and legible inscriptions. This is a graveyard containing European graves of farmers/farm owners in the area. The graves have in some sections sunk and some depressions not identified at the moment as graves could turn out to be graves. These would have to be tested during the process of exhumation.

Most of the graves are older than 60 years of age, with some unknown as the inscriptions have been obliterated. Two graves are younger than 60 (with dates of 1957 and 1974 respectively). The other death dates range between 1903 (oldest) and 1953. The following families are represented:

Opperman, Williams, Venter, De Beer, Keller, Rademeyer or Rademan, Booysen and Joubert.

The Graves carry a **High** cultural significance and will have to be exhumed and relocated as expanding mining operations will impact on them. All due processes, including detailed social consultation and permitting, will have to be adhered to prior to relocation undertaken.



Figure 21: A view of Grave Site 1.



Figure 22: One of the sunken grave pits on Grave Site 1.



Figure 23: One of the headstones on Grave Site 1. This is the grave of one Daniel Jacobu Venter who died in 1918 aged 28.



Figure 24: Another of the graves on Grave Site 1. This is the grave of Catharina Petronella De Beer who died in 1938 aged 58.

Grave Site 2

This site is Site No.6 in Van Vollenhoven's 2012 report. According to him there are at least 20 graves, with most unknown without any headstones. Only one date of death was identified by him, namely 1958. Family names identified include Mbonau, Mbonani and Mulitana.

The 2014 assessment indicates that there are about 12 graves located here. 7 of these are unknown and marked with either headstones without any legible inscriptions, or just by stones. The other 5 have headstones with names and sometimes dates of death. These include the following individuals:

1. Johanna Mbonani 1958
2. Lukas Mbonani
3. Mss Sara Mulitana
4. Mambombo?
5. Herman? 1959.

The Graves carry a **High** cultural significance and will have to be exhumed and relocated as expanding mining operations will impact on them. All due processes, including detailed social consultation and permitting, will have to be adhered to prior to relocation undertaken.



Figure 25: Grave Site 2.



Figure 26: One of the graves on Grave Site 2 with a headstone without any inscriptions.



Figure 27: The grave of Johanna Mbonani.



Figure 28: The grave of Mss Sara Mulitana.



Figure 29: The grave of one Mambombo.



Figure 30: The grave of Herman? who died in December 1959.



Figure 31: One of the other unknown graves on Grave Site 2.

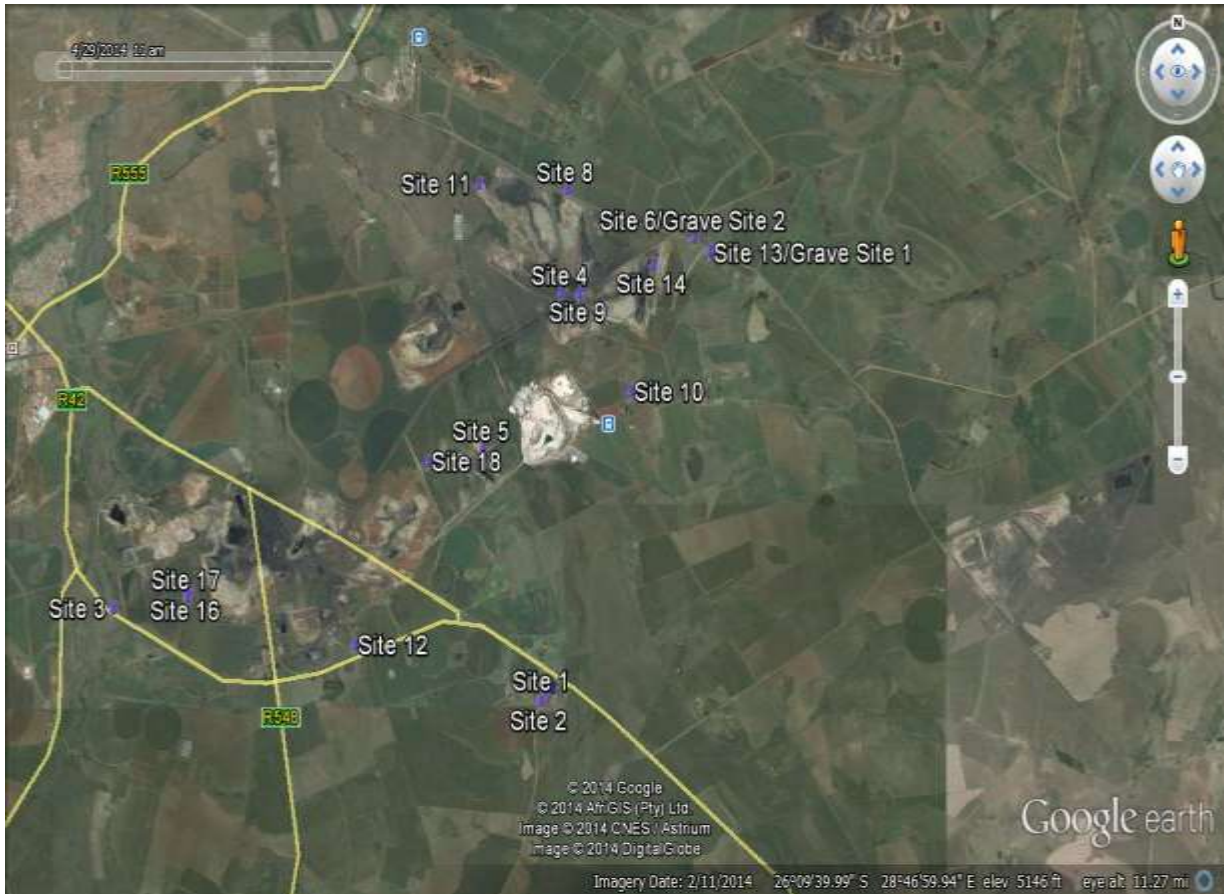


Figure 32: Aerial view of area showing distribution of sites mentioned in the report (Google Earth 2014).



Figure 33: Aerial view of location of two grave sites that need to be relocated (Google Earth 2014).

7. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the Review of Heritage Impact Assessment Report, and the assessment of the Grave Sites that will have to be exhumed and relocated from the Moabsvelden Block on Portion 1 of Moabsvelden 248IR of the Exxaro Leeuwpan Coal Mine near Delmas in Mpumalanga, have been concluded successfully.

Eighteen heritage sites, mostly graveyards (13) and historical farmsteads and associated structures were identified in the earlier 2006, 2007 and 2012 Heritage Surveys. The grave sites all carry a High Cultural Heritage Significance, and should they be impacted and cannot be avoided by expanding mining operations then these graves (as with Grave Sites 1 and 2) will have to be relocated. The alternative is the fencing in and preservation of the site in situ and implementing a Graves Management Plan. Mitigation measures as recommended for the Historical Sites (those with High and Medium significance) will have to be implemented as well. This will include detailed recording and mapping before destruction.

Finally, a Graves Action Plan will be drafted and submitted prior to the exhumation and relocation process being undertaken.

8. REFERENCES

Aerial views of the study area and sites distribution: Google Earth 2014.

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

Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.

Lombard, M., L. Wadley, J. Deacon, S. Wurz, I. Parsons, M. Mohapi, J. Swart & P. Mitchell. 2012. **South African and Lesotho Stone Age Sequence Updated (I).** South African Archaeological Bulletin **67** (195): 120–144, 2012.

Pistorius, J.C.C., 2007. **A Phase 1 Heritage Impact Assessment (HIA) Study for Moabsvelden 248, Rietkuil 249 and Wolvenfontein 244 near Delmas in the Mpumalanga Province of South Africa.** (Unpublished report, Pretoria).

Pistorius, Dr. Julius C.C. 2010. **A Phase I Heritage Impact Assessment (HIA) Study for the Expansion of the Malahleni Mine Water Reclamation Scheme near Emalahleni (Witbank) in the Mpumalanga Province of South Africa.** Unpublished Report. October 2010. For: Golder Associates.

Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.

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

Van Schalkwyk, J.A. 2006. **Cultural Heritage Scoping Report for the Proposed Leeuwpan Mining Development, Delmas District, Mpumalanga.** Unpublished Report National Cultural History Museum 2006KH092. For: Synergistics Environmental Services (Pty) Ltd. August 2006.

Van Vollenhoven, A.C. 2012. **A Report on a Heritage Impact Assessment for the Exxaro Leeuwpan Coal Consolidation of EMPR'S, close to Delmas in the Mpumalanga Province.** Unpublished Report Archaetnos cc AE01217V. For: GCS April 2012

APPENDIX A

DEFINITIONS:

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

Feature: Means a coincidental find of movable cultural objects.

Object: Means an Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

DEFINITIONS/STATEMENTS 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:

1. 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.

2. 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.

3. Field ratings:

- National Grade I significance: Should be managed as part of the national estate.
- Provincial Grade II significance: Should be managed as part of the provincial estate.
- Local Grade IIIA: Should be included in the heritage register and not be mitigated (high significance).
- Local Grade IIIB: Should be included in the heritage register and may be mitigated (high/ medium significance).
- General protection A (IV A): Site should be mitigated before destruction (high/ medium significance).
- General protection B (IV B): Site should be recorded before destruction (medium significance).
- General protection C (IV C): Phase 1 is seen as a sufficient recording of the existing structure and it may therefore be demolished of (low significance).

APPENDIX D

PROTECTION OF HERITAGE RESOURCES:

1. Formal protection:

Formal protection is applicable to the following:

- National heritage sites and Provincial heritage sites – grades I and II
- Protected areas – which is described as an area surrounding a heritage site
- Provisional protection – described as protection for a maximum period of two years
- Heritage registers – listings of grades II and III
- Heritage areas – areas which include more than one heritage site
- Heritage objects – heritage objects include inter alia archaeological, paleontological, meteorites, geological specimens, visual art, military, numismatic and books.

2. General protection:

General protection is applicable to:

- Objects protected by the laws of foreign states
- Structures – older than 60 years
- Archaeology, paleontology and meteorites
- Burial grounds and graves
- Public monuments and memorials

APPENDIX E

HERITAGE IMPACT ASSESSMENT PHASES

- Phase 1: Pre-assessment or scoping phase – the establishment of the scope of the project and the terms of reference.
- Phase 2: Baseline assessment – the establishment of a broad framework of the potential heritage of an area.
- Phase 3: Assessment of potential impacts – the identification of sites, assessment of their significance, commenting on the potential impact of the proposed development and recommending mitigation measures or the conservation thereof.
- Phase 4: Letter of recommendation for exemption –submitted in the event that no likelihood exists that any sites will be impacted upon.
- Phase 5: Mitigation or rescue – planning the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
- Phase 6: Compilation of and implementation of a management plan – in rare cases where sites are regarded as of high importance such that development cannot be permitted unconditionally.