

**CULTURAL HERITAGE SCOPING REPORT FOR THE  
ELDERS/EKAYA MINING DEVELOPMENT IN THE  
MIDDELBURG AND BETHAL DISTRICTS,  
MPUMALANGA**

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## EXECUTIVE SUMMARY

### **CULTURAL HERITAGE SCOPING REPORT FOR THE ELDERS/EKAYA MINING DEVELOPMENT IN THE MIDDELBURG AND BETHAL DISTRICTS, MPUMALANGA**

The aim of the survey was to undertake a scoping review of cultural heritage resources that might occur and as a result be impacted upon in an area in which it is proposed to develop mining activities. A number of sites were identified, all of which are cemeteries/graves and farmsteads dating to historic times. We therefore recommend, from a heritage point of view, that the proposed development can continue and request the following:

- The various cemeteries should be left in place. However, if this is not possible due to the planned mining activities, they are to be relocated after the proper procedures have been followed. This includes notification, consultation with descendants and the obtaining of the necessary permits. It is important to note that some graves also occur in the vicinity of the various farm labourer compounds.
- The old buildings at the various farmsteads should be documented before they are demolished. It is not necessary to document new buildings or those that does not exhibit interesting architectural and technological features, or those that are younger than 60 years.
- If the existing farm labourer homesteads are to be demolished, at least a representative number, showing interesting architectural and technological features, should also be documented.
- Some old farmsteads and cemeteries occur just outside the area of proposed development and, theoretically would not be impacted on. However, if there is a change in mining plans resulting in an impact on them, they also should be documented and/or relocated.

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# CULTURAL HERITAGE SCOPING REPORT FOR THE ELDERS/EKAYA MINING DEVELOPMENT IN THE MIDDELBURG AND BETHAL DISTRICTS, MPUMALANGA

## 1. INTRODUCTION

The National Cultural History Museum<sup>1</sup> was contracted by **Oryx Environmental** to undertake a scoping review of cultural heritage resources that might occur and as a result be impacted upon in an area in which it is planned to develop mining activities.

**Cultural heritage resources** are broadly defined as all non-physical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.

## 2. BACKGROUND AND BRIEF

The aim of the survey was to identify and evaluate sites, objects and structures of cultural importance found within the boundaries of the area that is to be impacted by the developed.

The scope of work consisted of conducting a Phase 1 archaeological survey of the site in accordance with the requirements of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999). This included:

- Conducting a desk-top investigation of the area;
- A visit to the proposed development site.

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development area;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;

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<sup>1</sup> The National Cultural History Museum is affiliated to the Northern Flagship Institution, which act as parent body for a number of museums, all of which resorts under the Department of Arts and Culture.

- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.
- Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction.

### 3. STUDY APPROACH

#### 3.1 Information base (sources)

Very little archaeological research has been done in this area. Most work are surveys done for proposed developments in the region. Other sources deal with different aspects on a more regional basis and are therefore of limited value. See references below.

#### 3.2 Glossary of terms

**Study area:** Refers to the entire study area as indicated by the client in the accompanying Fig. 1.

**Stone Age:** The first and longest part of human history is the Stone Age, which began with the appearance of early humans between 3-2 million years ago. Stone Age people were hunters, gatherers and scavengers who did not live in permanently settled communities. Their stone tools preserve well and are found in most places in South Africa and elsewhere.

|                  |                                    |
|------------------|------------------------------------|
| Early Stone Age  | 2 000 000 - 150 000 Before Present |
| Middle Stone Age | 150 000 - 30 000 BP                |
| Late Stone Age   | 30 000 - until c. AD 200           |

**Iron Age:** Period covering the last 1800 years, when new people brought a new way of life to southern Africa. They established settled villages, cultivated domestic crops such as sorghum, millet and beans, and they herded cattle as well as sheep and goats. These people, according to archaeological evidence, spoke early variations of the Bantu Language. Because they produced their own iron tools, archaeologists call this the Iron Age.

|                |                   |
|----------------|-------------------|
| Early Iron Age | AD 200 - AD 1000  |
| Late Iron Age  | AD 1000 - AD 1830 |

**Historical Period:** Since the arrival of the white settlers - c. AD 1840 - in this part of the country

#### 3.3 List of abbreviations

|              |   |
|--------------|---|
| <b>EIA</b>   | Early Iron Age                          |
| <b>ESA</b>   | Early Stone Age                         |
| <b>LIA</b>   | Late Iron Age                           |
| <b>LSA</b>   | Late Stone Age                          |
| <b>MSA</b>   | Middle Stone Age                        |
| <b>PHRA</b>  | Provincial Heritage Resources Agency    |
| <b>SAHRA</b> | South African Heritage Resources Agency |

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### 3.4 Methodology

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various anthropological, archaeological and historical sources were consulted - see the list of references below.

The **Archaeological Data Recording Centre** (ADRC), housed at the National Cultural History Museum, Pretoria, was consulted. This was used to draw up a preliminary map to indicate the existence of known sites of cultural significance, indicating potential problem areas.

This preliminary study was followed by a field trip, from which an overview of the area was gained and an idea of the potential problems and expected heritage sites could be formulated. Site identified during the field survey were evaluated and are presented in Appendix 3.

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## 4. STUDY AREA

### 4.1 Description of the study area

The areas surveyed were determined by the proposed development and is indicated in Fig. 1. Open cast mining operations is to take place on the following farms: Schurvekop 227IS, Vlakkuielen 76IS, Middelkraal 50IS and Halfgewonnen 190IS. Underground mining is to take place on the following farms: Elandsfontein 147IS, Vlakkuielen 76IS, Rensburghoop 74IS and Kafferstad 79IS.

The topography of the area can be described as undulating hills, bisected by a number of smaller rivers. A few large pans occur in the study area.

The geology of the area consists of arenite, with some granite and rhyolite intrusions as outcrops.

The original vegetation of the area is classified as Highveld Grassland. Large sections are used for agricultural activities – ploughing and grazing – which changed the original vegetation drastically. Ploughing might also have had a detrimental effect on any heritage resources that might have occurred here in the past.

### 4.2 Identified sites

A number of sites were identified. Few of these are located inside the area of impact. Furthermore, as the largest area is to be mined below ground, it would have very little effect on cultural resources, except if subsidence occurs.

#### 4.2.1 Stone Age

No sites, features or artefacts dating to the Stone Age were identified. It is possible that some isolated artefacts could be located on the rims of the different pans, but due to the current dense vegetation nothing was found.

#### 4.2.2 Iron Age

Although some sites dating to the Iron Age are known to occur in the larger region, no sites, features or artefacts dating to this period were identified in the study area.

#### 4.2.3 Historic period



A number of sites dating to historic times were identified. These are old farmsteads, with associated farm labourer homesteads and cemeteries/graves. Their location can be determined from the map in figure 2.

During the Anglo Boer War, an intense battle took place on the farm Wilmansrust, a few kilometres north of the study area. As a result of the scorched earth policy of the British, most farmsteads in the area were destroyed. Those identified therefore dates to after the Anglo Boer War. The soldiers killed in action were later exhumed and reburied in Bethal.

## 5. IDENTIFICATION OF RISK SOURCES

An Environmental Impact Assessment is focused on two phases of a proposed development: **the construction and operation phases**. However, from a cultural heritage perspective, this distinction does not apply. Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted, can be written into the management plan, whence they can be avoided or cared for in the future.

### Construction phase:

| Possible Risks            | Source of the risk |
|---------------------------|--------------------|
| Actually identified risks |                    |
| - damage to sites         | Construction work  |
| Anticipated risks         |                    |
| - looting of sites        | Curios workers     |

### Operation phase:

| Possible Risks            | Source of the risk                    |
|---------------------------|---------------------------------------|
| Actually identified risks |                                       |
| - damage to sites         | Not keeping to management plans       |
| Anticipated risks         |                                       |
| - damage to sites         | Unscheduled construction/developments |

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## 6. SITE SIGNIFICANCE AND ASSESSMENT

The **significance** of a heritage site and artefacts is determined by its historical, social, aesthetic, technological and scientific value in relation to the uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

Within the current project development, sites regarded as having low significance are viewed as being recorded in full after identification and would require no further mitigation. Impact from the development would therefore be judged to be low. Sites with a medium to high significance would require mitigation. Mitigation, in most cases the excavation of a site, is in essence destructive and therefore the impact can be viewed as high and as permanent.

- It is obvious that the different cemeteries would have high significance for the local communities, but a low significance on provincial and even local level.
- The same is probably true for the different farmsteads. All of the identified farmsteads have undergone some change over the years, with adaptations and renovations being made. However, in all cases, some of the original buildings have been retained, whether in the farmhouse or the different outbuildings. In most cases these structures are older than 60 years, which is the cut-off point indicated by the Heritage Act. From a scientific and historic point of view, these structures would have a medium significance on a local level.
- The various farm labour homesteads are usually ignored. However, some are quite old and show interesting architectural and technological developments. They are therefore also viewed to have medium significance on a local level.

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## 7. CONCLUSION

The aim of the survey was to undertake a scoping review of cultural heritage resources that might occur and as a result be impacted upon in an area in which it is proposed to develop mining activities. A number of sites were identified, all of which are cemeteries/graves and farmsteads dating to historic times. We therefore recommend, from a heritage point of view, that the proposed development can continue and request the following:

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- Some old farmsteads occur just outside the area of proposed development and, theoretically would not be impacted on. However, if there is a change in mining plans resulting in an impact on them, they also should be documented and/or relocated.

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## 8. REFERENCES

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**APPENDIX 1: MAPS**

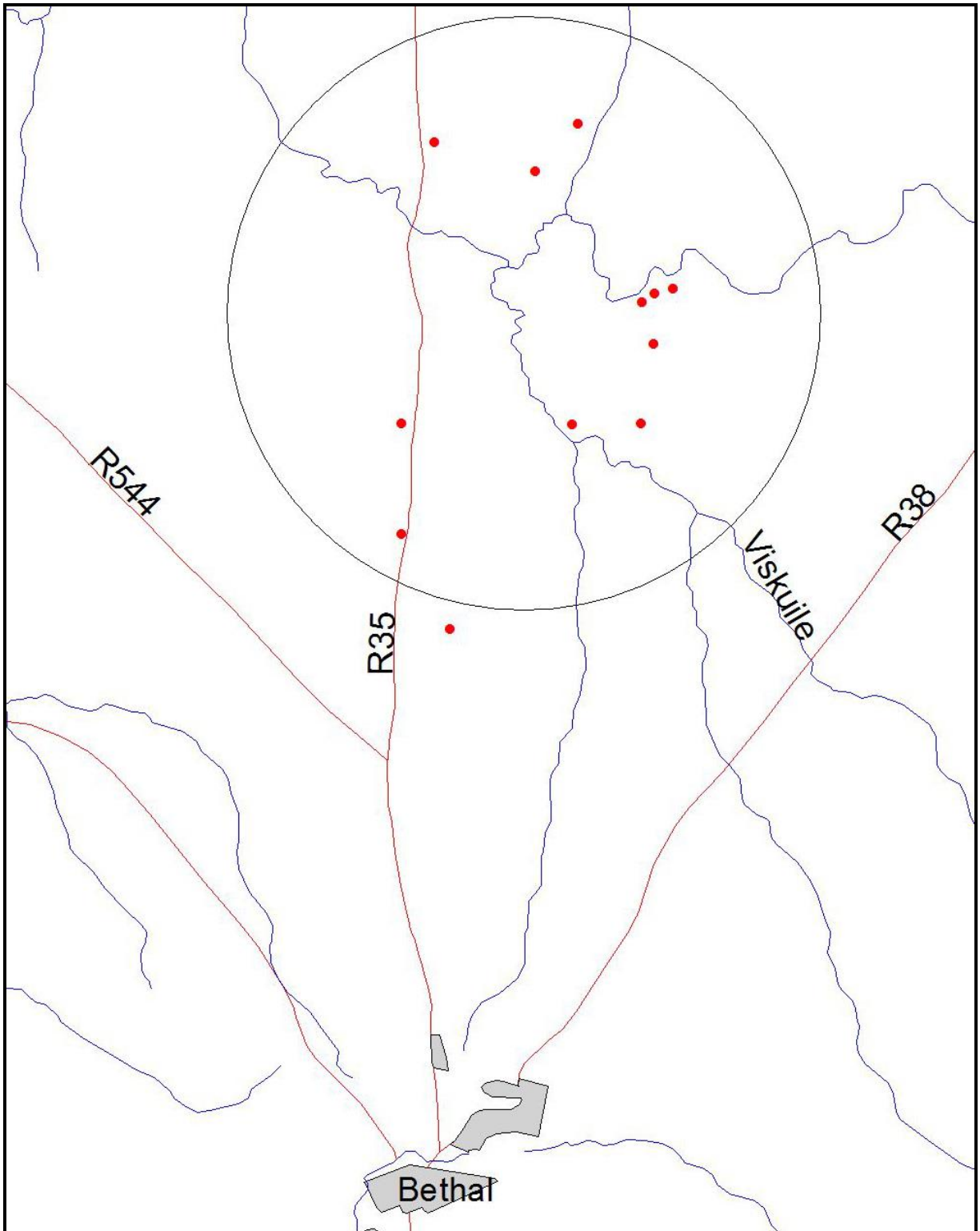


Fig. 1. The study area in regional context.

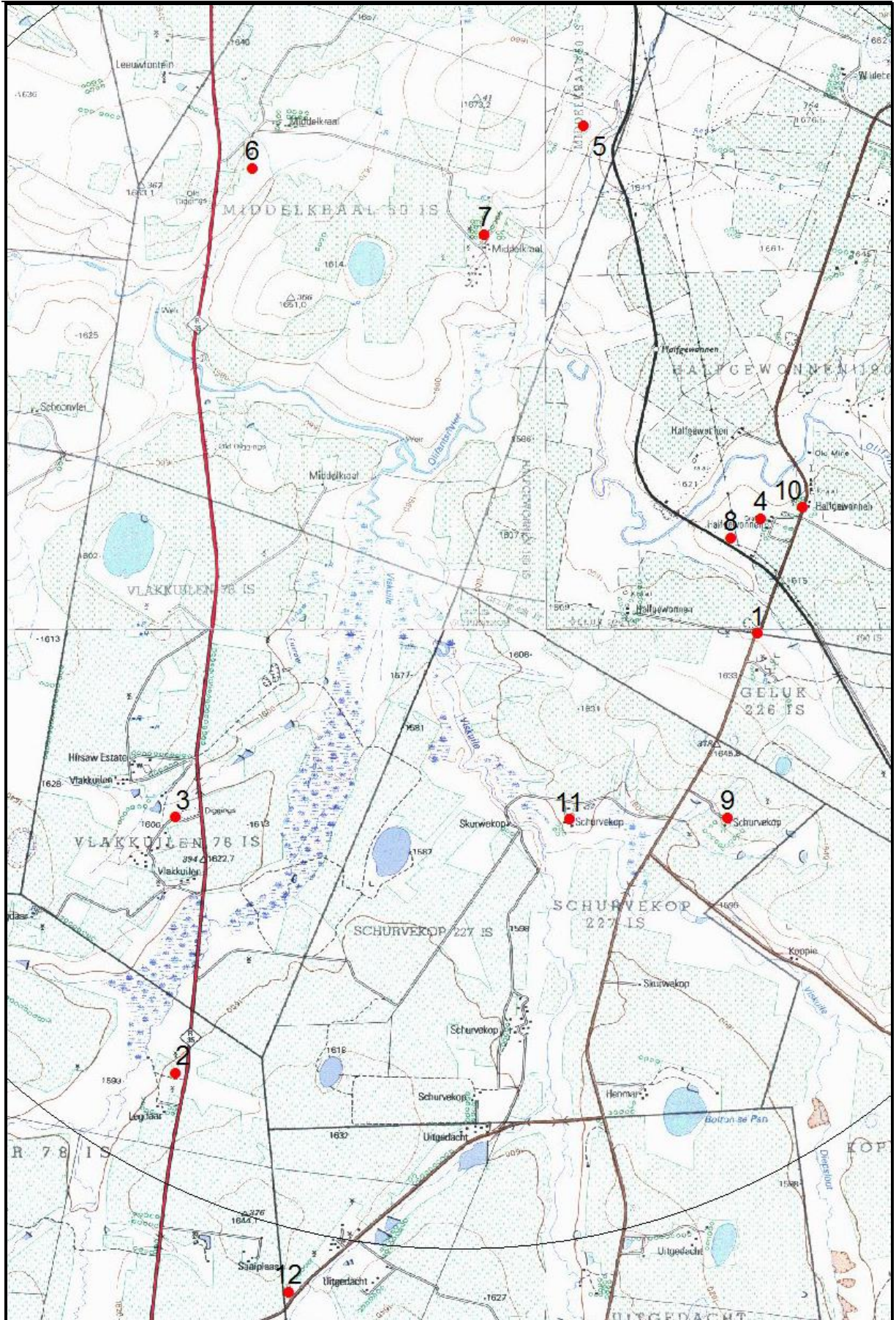


Fig. 2. Location of the identified sites. (Map, courtesy of the Government Printer)

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## **APPENDIX 2: STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON CULTURAL RESOURCES**

### **Significance of impact:**

- low                where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium        where the impact could have an influence which will require modification of the project design or alternative mitigation
- high            where it would have a “no-go” implication on the project regardless of any mitigation

### **Certainty of prediction:**

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

### **Recommended management action:**

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs

### **Legal requirements:**

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.



**APPENDIX 3: SURVEY RESULTS**

| No. | Name                    | Classification | Farm name          | Decimal south | Decimal east | Significance | Impact | Management   |
|-----|-------------------------|----------------|--------------------|---------------|--------------|--------------|--------|--|
| 1   | Cemetery                | Historic       | Geluk 226IS        | -26.25111     | 29.52222     | Low          | Low    | 1 = no further investigation/action necessary  |
| 2   | Cemetery                | Historic       | Legdaar 78IS       | -26.29769     | 29.46056     | Low          | Low    | 1 = no further investigation/action necessary  |
| 3   | Cemetery                | Historic       | Vlakkuielen 76IS   | -26.27056     | 29.46056     | Low          | Low    | 1 = no further investigation/action necessary  |
| 4   | Cemetery                | Historic       | Halfgewonnen 190IS | -26.23894     | 29.52262     | Low          | High   | 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary |
| 5   | Stone walled site       | Historic       | Middelkraal 50IS   | -26.19735     | 29.50380     | Low          | Medium | 2 = controlled sampling and/or mapping of the site necessary                                   |
| 6   | Farm labourer homestead | Historic       | Middelkraal 50IS   | -26.20183     | 29.46875     | Low          | Medium | 2 = controlled sampling and/or mapping of the site necessary                                   |
| 7   | Farmstead               | Historic       | Middelkraal 50IS   | -26.20885     | 29.49333     | Low          | High   | 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary |
| 8   | Farm labourer homestead | Historic       | Halfgewonnen 190IS | -26.24103     | 29.51940     | Low          | High   | 2 = controlled sampling and/or mapping of the site necessary                                   |
| 9   | Farmstead               | Historic       | Schurvekop 227IS   | -26.27060     | 29.51910     | Low          | Low    | 1 = no further investigation/action necessary  |
| 10  | Farmstead               | Historic       | Halfgewonnen 190IS | -26.23777     | 29.52701     | Low          | Low    | 1 = no further investigation/action necessary  |
| 11  | Farmstead               | Historic       | Schurvekop 227IS   | -26.27080     | 29.50233     | Low          | Medium | 2 = controlled sampling and/or mapping of the site necessary                                   |
| 12  | Cemetery                | Historic       | Uitgedacht 229IS   | -26.32084     | 29.47258     | Low          | Medium | 1 = no further investigation/action necessary  |