

**Cultural heritage impact assessment for the  
REHABILITATION AND UPGRADE OF NATIONAL ROUTE 1 SECTION 16  
BETWEEN WINBURG INTERCHANGE (KM 78.8) AND THE INTERSECTION TO  
WINBURG STATION (KM 89.0), FREE STATE PROVINCE**

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**Prepared for:**

Chameleon Environmental  
**Representative:** Dr J Bothma

**Postal Address:** PO Box 11788, Silver Lakes, 0054  
**Tel:** 082 571 6920  
**E-mail:** ce.j@mwebbiz.co.za

**Prepared by:**

J van Schalkwyk (D Litt et Phil), Heritage Consultant  
ASAPA Registration No.: 168  
**Principal Investigator:** Iron Age, Colonial Period, Industrial Heritage

**Postal Address:** 62 Coetzer Avenue, Monument Park, 0181  
**Mobile:** 076 790 6777  
**Fax:** 012 347 7270  
**E-mail:** jvschalkwyk@mweb.co.za

**Declaration:**

I, J.A. van Schalkwyk, declare that I do not have any financial or personal interest in the proposed development, nor its developers or any of their subsidiaries, apart from the provision of heritage assessment and management services.



J A van Schalkwyk (D Litt et Phil)  
Heritage Consultant  
September 2014

## EXECUTIVE SUMMARY

### **CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE REHABILITATION AND UPGRADE OF NATIONAL ROUTE 1 SECTION 16 BETWEEN WINBURG INTERCHANGE (KM 78.8) AND THE INTERSECTION TO WINBURG STATION (KM 89.0), FREE STATE PROVINCE**

SANRAL proposes the upgrade of section 16 of National Route 1, km 78.8 to km 89, in the vicinity of Winburg in the Free State Province. The total distance of this section is approximately 10 km. Material for this work will be sourced from two borrow pits and four quarries, all of which are in close vicinity of this section of the N1.

In accordance with Section 38 of the NHRA, an independent heritage consultant was appointed by Chameleon Environmental Services to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where it is planned to upgrade the section of the road and expand the existing borrow pits and quarries.

The cultural landscape qualities of the region essentially consist of a rural setup. In this the human occupation is made up of a pre-colonial element consisting of limited Stone Age and Iron Age occupation, as well as a much later colonial (farmer) component. In recent years an urban element developed, expanding as a result of mining development in the region.

The following sites, features and objects of cultural heritage significance have been identified to occur within the study area:

#### *Borrow Pit 2*

- The remains of a small rectangular house structure were identified. Approximately 35 m to the northwest, behind the house structure three graves were identified. These are only marked with stone cairns and no information about their age or who were buried there could be found. These two features are probably related to each, making it a unit. Any impact would therefore have an impact on the whole.
  - Both these features seem to occur outside of the proposed borrow pit expansion and it would be possible to avoid them. It is recommended that these sites are left in place and that they are fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid these sites, they should be documented and excavated by a qualified archaeologist.

#### *Quarry Site 1*

- The remains of an old farm labourer homestead. It consists of the remains of at least two stone built structures as well as a large refuse dump. It is difficult impossible to date as it does not occur on the older versions of the cadastral maps and the surface finds (glass, metal, etc.) have no diagnostic features. However, the site is viewed to be older than sixty years.
  - As all these features seem to occur on the western edge of the borrow pit, it would be possible to avoid them. It is recommended that the site is left in place and that it is fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid the site, it should be documented and excavated by a qualified archaeologist.

From a heritage point of view we therefore recommend that the proposed development can continue, on condition of acceptance of the above mitigation measures. We request that if archaeological sites or graves are exposed during construction work, it should immediately be reported to a heritage consultant so that an investigation and evaluation of the finds can be made.



J A van Schalkwyk  
Heritage Consultant  
September 2014

**TECHNICAL SUMMARY**

<b>Property details</b>	
Province	Free State
Magisterial district	Winburg
Municipality	Masilonyana
Topo-cadastral map	2826DB, 2827CA, 2827AC, 2826BD
Closest town	Winburg
Farm name	Various

<b>Development criteria in terms of Section 38(1) of the NHR Act</b>	Yes/No
Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length	Yes
Construction of bridge or similar structure exceeding 50m in length	No
Development exceeding 5000 sq m	Yes
Development involving three or more existing erven or subdivisions	No
Development involving three or more erven or divisions that have been consolidated within past five years	No
Rezoning of site exceeding 10 000 sq m	No
Any other development category, public open space, squares, parks, recreation grounds	No

<b>Development</b>	
Description	Development/expansion of a number of borrow pits and quarries for use in the upgrade of a section of the N1 national route
Project name	N1 national route upgrade

<b>Land use</b>	
Previous land use	Agriculture
Current land use	Borrow pits

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## **GLOSSARY OF TERMS AND ABBREVIATIONS**

### **TERMS**

**Study area:** Refers to the entire study area as indicated by the client in the accompanying Fig. 1 and 2.

**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. As they produced their own iron tools, archaeologists call this the Iron Age.

Early Iron Age	AD 200 - AD 900
Middle Iron Age	AD 900 - AD 1300
Late Iron Age	AD 1300 - AD 1830

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

### **ABBREVIATIONS**

ADRC	Archaeological Data Recording Centre
ASAPA	Association of Southern African Professional Archaeologists
CS-G	Chief Surveyor-General
EIA	Early Iron Age
ESA	Early Stone Age
LIA	Late Iron Age
LSA	Later Stone Age
HIA	Heritage Impact Assessment
MSA	Middle Stone Age
NASA	National Archives of South Africa
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Agency
SAHRA	South African Heritage Resources Agency

## **CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE REHABILITATION AND UPGRADE OF NATIONAL ROUTE 1 SECTION 16 BETWEEN WINBURG INTERCHANGE (KM 78.8) AND THE INTERSECTION TO WINBURG STATION (KM 89.0), FREE STATE PROVINCE**

### **1. INTRODUCTION**

SANRAL proposes the upgrade of section 16 of National Route 1, km 78.8 to km 89, in the vicinity of Winburg in the Free State Province. The total distance of this section is approximately 10 km.

South Africa's heritage resources, also described as the 'national estate', comprise a wide range of sites, features, objects and beliefs. According to Section 27(18) of the National Heritage Resources Act (NHRA), Act 25 of 1999, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site.

In accordance with Section 38 of the NHRA, an independent heritage consultant was appointed by Chameleon Environmental Services to conduct a Heritage Impact Assessment (HIA) to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where it is planned to upgrade the section of the road and expand the existing borrow pits and quarries.

This HIA report forms part of the Environmental Impact Assessment (EIA) as required by the EIA Regulations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and is intended for submission to the South African Heritage Resources Agency (SAHRA).

### **2. TERMS OF REFERENCE**

This report does not deal with development projects outside of or even adjacent to the study area as is presented in Section 5 of this report. The same holds true for heritage sites, except in a generalised sense where it is used to create an overview of the heritage potential in the larger region.

#### **2.1 Scope of work**

The aim of this HIA, broadly speaking, is to determine if any sites, features or objects of cultural heritage significance occur within the boundaries of the area where it is planned to upgrade the N1 national route.

The scope of work for this study consisted of:

- Conducting of a desk-top investigation of the area, in which all available literature, reports, databases and maps were studied; and
- A visit to the proposed development area.



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; and
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.

## 2.2 Limitations

The investigation has been influenced by the following factors:

- The unpredictability of buried archaeological remains.
- This report does not consider the palaeontological potential of the site.

## 3. HERITAGE RESOURCES

### 3.1 The National Estate

The NHRA (No. 25 of 1999) defines the heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations that must be considered part of the national estate to include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds, including-
  - ancestral graves;
  - royal graves and graves of traditional leaders;
  - graves of victims of conflict;
  - graves of individuals designated by the Minister by notice in the Gazette;
  - historical graves and cemeteries; and
  - other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- sites of significance relating to the history of slavery in South Africa;
- movable objects, including-
  - objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - objects to which oral traditions are attached or which are associated with living heritage;
  - ethnographic art and objects;
  - military objects;
  - objects of decorative or fine art;
  - objects of scientific or technological interest; and
  - books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

### 3.2 Cultural significance

In the NHRA, Section 2 (vi), it is stated that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. This is determined in relation to a site or feature’s uniqueness, condition of preservation and research potential.

According to Section 3(3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of

- its importance in the community, or pattern of South Africa's history;
- its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- sites of significance relating to the history of slavery in South Africa.

A matrix was developed whereby the above criteria were applied for the determination of the significance of each identified site (see Appendix 1). This allowed some form of control over the application of similar values for similar identified sites.

## 4. STUDY APPROACH AND METHODOLOGY

### 4.1 Extent of the Study

This survey and impact assessment covers the area as presented in Section 5 and as illustrated in Figure 1 & 2. For more information, please see the Technical Summary presented above (p. iii).

### 4.2 Methodology

#### 4.2.1 Preliminary investigation

##### 4.2.1.1 Survey of the literature

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, historical sources and heritage impact assessment reports were consulted.

- Information of a general nature was obtained from these sources.

#### 4.2.1.2 Data bases

The *Heritage Atlas Database*, the *Environmental Potential Atlas*, the *Chief Surveyor General* and the *National Archives of South Africa* were consulted.

- Database surveys produced a number of sites located in adjacent areas.

#### 4.2.1.3 Other sources

Aerial photographs and topocadastral and other maps were also studied - see the list of references below.

- Information of a very general nature was obtained from these sources.

#### 4.2.2 Field survey

The maps supplied by Chameleon Environmental were converted into *kml* files and were then loaded onto a Nexus 7 tablet. This was used, in Google Earth, during the field survey to access the study areas.

The field survey was done on 13 September 2014. The site was surveyed by travelling the alignment of the N1 in both directions. Each of the borrow pits/quarry sites were surveyed by walking transects across it (see the track log that was kept for each of the different sites).

#### 4.2.3 Documentation

All sites, objects and structures that are identified are documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities are determined by means of the *Global Positioning System* (GPS) and plotted on a map. This information is added to the description in order to facilitate the identification of each locality.

The track log and identified sites were recorded by means of a Garmin Oregon 550 handheld GPS device. Photographic recording was done by means of a Canon EOS 550D digital camera.

Map datum used: Hartebeeshoek 94 (WGS84).

## 5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

### 5.1 Site location and description

SANRAL proposes the upgrade of section 16 of National Route 1, km 78.8 to km 89, in the vicinity of Winburg in the Free State Province. The total distance of this section is approximately 10 km.

The geology of the area is made up of mudstone, with dolerite intrusions occurring to the east of the study areas. The original vegetation is made up of Moist Cool Highveld Grassland, but in some places has been replaced due to farming activities (ploughing). The topography is described as lowlands with hills. The Klein-Vetriver occur a short distance to the south of the study areas.



Fig. 1. Map showing the location of the study area in regional context.

## 5.2 Development proposal

SANRAL proposes the upgrade of section 16 of National Route 1, km 78.8 to km 89, in the vicinity of Winburg in the Free State Province. The total distance of this section is approximately 10 km.

In addition, material for this work will be sourced from two borrow pits and four quarries, all of which are in close vicinity of this section of the N1. All of these are existing borrow pits and quarries which will be enlarged to obtain sufficient material.

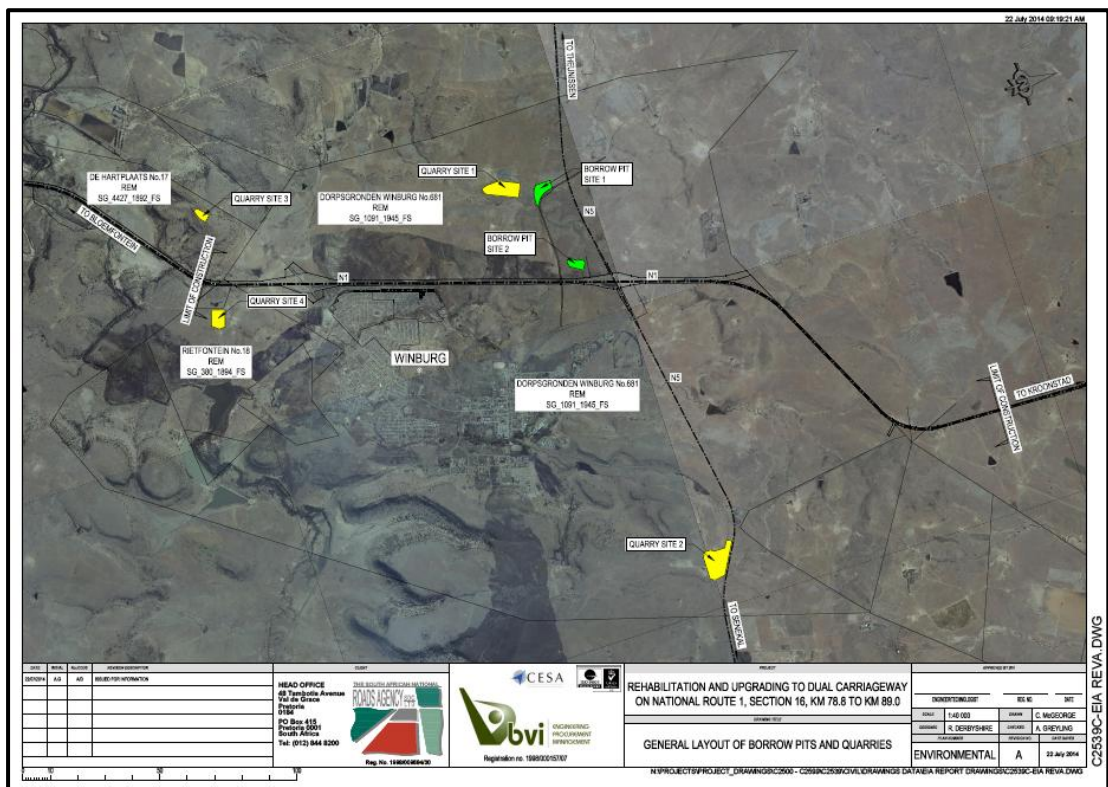


Fig. 2. The study area, showing the location of the borrow pits.  
(Map supplied by Chameleon Environmental)

### 5.3 Regional overview

The aim of this section is to present an overview of the history of the larger region in order to eventually determine the significance of heritage sites identified in the study area, within the context of their historic, aesthetic, scientific and social value, rarity and representivity – see Section 3.2 and Appendix 1 for more information.

The cultural landscape qualities of the region essentially consist of a rural setup. In this the human occupation is made up of a pre-colonial element consisting of limited Stone Age and Iron Age occupation, as well as a much later colonial (farmer) component. This was soon followed by the development of a number of urban centres or towns. Originally these mostly served the surrounding farming communities, but with the discovery of the Free State Gold Fields, they expanded rapidly in order to serve this industry as well.



at least 1821. Various marauding groups of displaced Sotho-Tswana moved across the plateau in the 1820s. Mzilikazi raided the plateau extensively between 1825 and 1837. The Boers trekked into this area in the 1830s.

Due to their specific settlement requirements, Late Iron Age people preferred to settle on the steep slope of a mountain, possibly for protection, or for cultural considerations such as grazing for their enormous cattle herds. Because of the lack of trees they built their settlements in stone.

Sites dating to the Late Iron Age are known to occur in the region, especially to the southeast of the study area in the vicinity of the Sandrivier, whereas some are known to occur to the south of Winburg. These are typical stone walled sites that are linked with Sotho-speakers and date to the period after 1600 (Dreyer 1992; Maggs 1976).

### 5.3.3 Historic period

The historic period started with the arrival, in the late 18<sup>th</sup> century by Korana raiders in the area. They were soon followed, in the early 19<sup>th</sup> century, by traders, explorers and missionaries. By the middle of the 19<sup>th</sup> century, farms were taken up and later towns were developed.

The town of Winburg was laid out on the farm Waaifontein in 1841 and became a municipality in 1872. The name of the town might refer to a military victory over the Matabele at Mosega on 17 January 1837 (Raper 2004: 406).



Fig. 4. Examples of known heritage resources in the region.

Most farmsteads were burned down during the Anglo-Boer War, with the result that very little of the built environment dates to the 19<sup>th</sup> century. A significant number of battles and skirmishes took place in the region, and a concentration camp cemetery as well as a military cemetery is located close to the town.

#### 5.4 Identified sites

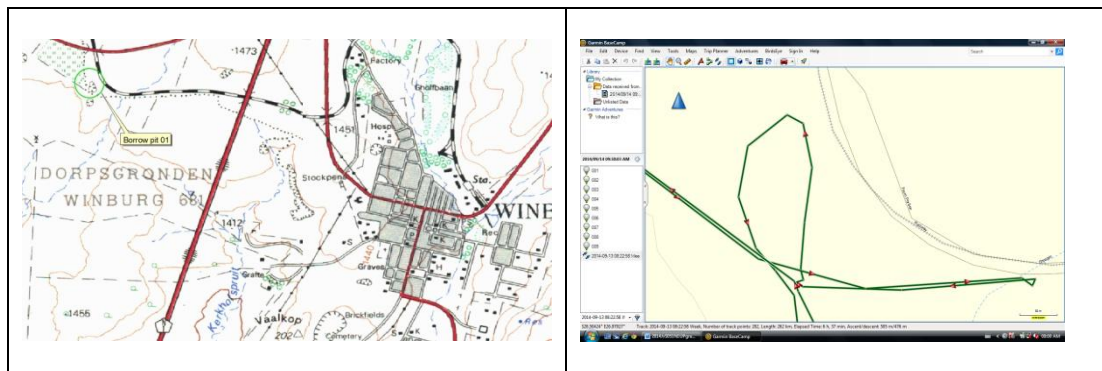
- The following cultural heritage resources were identified in the vicinity of the study area – i.e. less than 50 metres from either side of the N1 national route:

<b>NHRA Category</b>	None
<b>Significance</b>	None
<b>Protection</b>	None
<b>Management</b>	None

- The following sites, features and objects of cultural heritage significance were identified in the vicinity of the borrow pits and quarries:

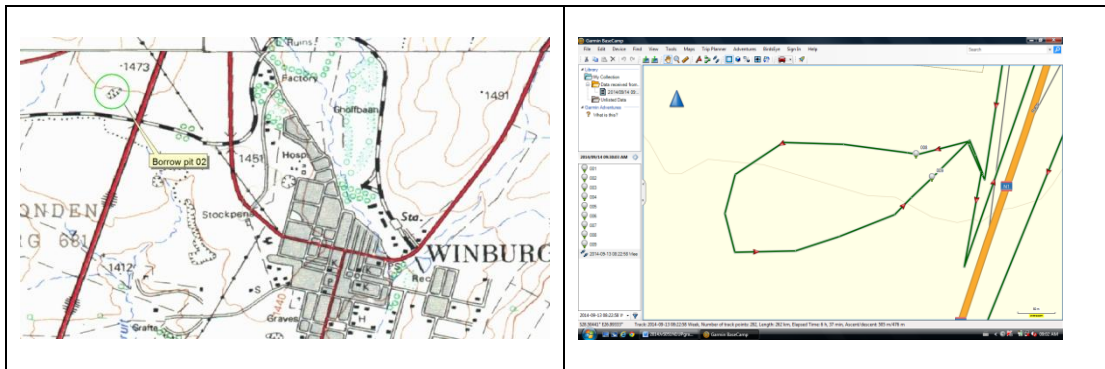


<b>No.</b>	Borrow pit 1		
<b>Farm</b>	Dorpsgronden Winburg 681	<b>Coordinates</b>	S 28.50484 E 26.98079



<b>NHRA Category</b>	None
<b>Significance</b>	None
<b>Protection</b>	None
<b>Management</b>	None

<b>No.</b>	Borrow pit 2		
<b>Farm</b>	Dorpsgronden Winburg 681	<b>Coordinates</b>	S 28.50346      E 26.99268





<b>Location</b>	House structure (Centre point)	S 28.50342	E 26.99477
	Burial place (Centre point)	S 28.50312	E 26.99457
<b>Description</b>			
<p>The remains of a small rectangular house structure were identified. Approximately 35 m to the northwest, behind the house structure three graves were identified. These are only marked with stone cairns and no information about their age or who were buried there could be found.</p> <p>These two features are probably related to each, making it a unit. Any impact would therefore have an impact on the whole.</p>			
<b>Significance</b>	Low on a local level – Grade III		
<b>Mitigation</b>			
Both these features seem to occur outside of the proposed borrow pit expansion and it would be possible to avoid them.			
<b>Recommendation:</b>			
It is recommended that these sites are left in place and that they are fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid these sites, they should be documented and excavated by a qualified archaeologist.			
<b>Requirements</b>			
A permit should be obtained from SAHRA for the possible impact on these sites prior to the development taking place.			

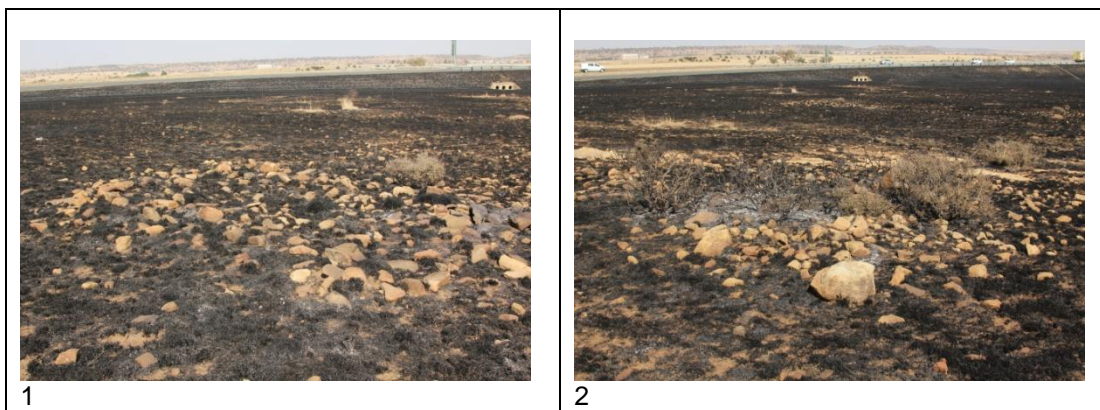
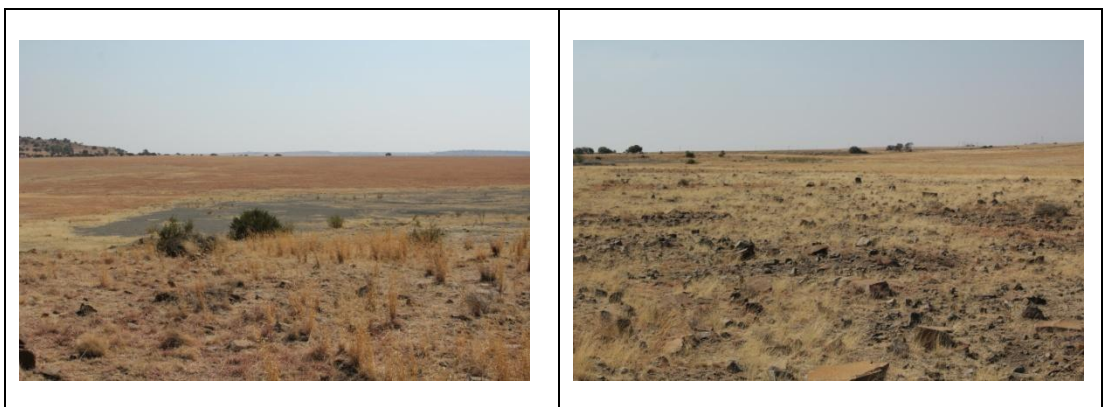
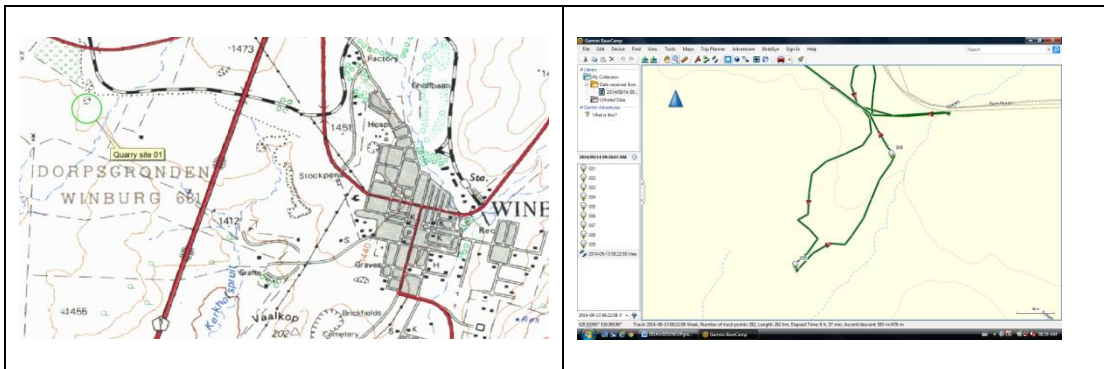


Fig. 5. The identified house structure and graves.

<b>No.</b>	Quarry site 1		
<b>Farm</b>	Dorpsgronden Winburg 681	<b>Coordinates</b>	S 28.50947      E 26.97880





<b>Location</b>	No. 1 (Centre point)	S 28.51123	E 26.97773
<b>Description</b>			
<p>The remains of an old farm labourer homestead. It consists of the remains of at least two stone built structures as well as a large refuse dump. It is difficult impossible to date as it does not occur on the older versions of the cadastral maps and the surface finds (glass, metal, etc.) have no diagnostic features. However, the site is viewed to be older than sixty years.</p> <p>This site would not differ from similar sites in contiguous areas or from the larger region and are therefore seen to have a low significance. However, it is a cultural practice that premature babies or infants that died very young are sometime buried within the homestead, either in the courtyard or even within the house.</p>			
<b>Significance</b>	Low on a local level – Grade III		
<b>Mitigation</b>			
<p>As all these feature seem to occur on the western edge of the borrow pit, it would be possible to avoid them.</p> <p><b>Recommendation:</b> It is recommended that the site is left in place and that it is fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid the site, it should be documented and excavated by a qualified archaeologist.</p>			
<b>Requirements</b>			
<p>A permit should be obtained from SAHRA for the possible impact on these sites prior to the development taking place.</p>			

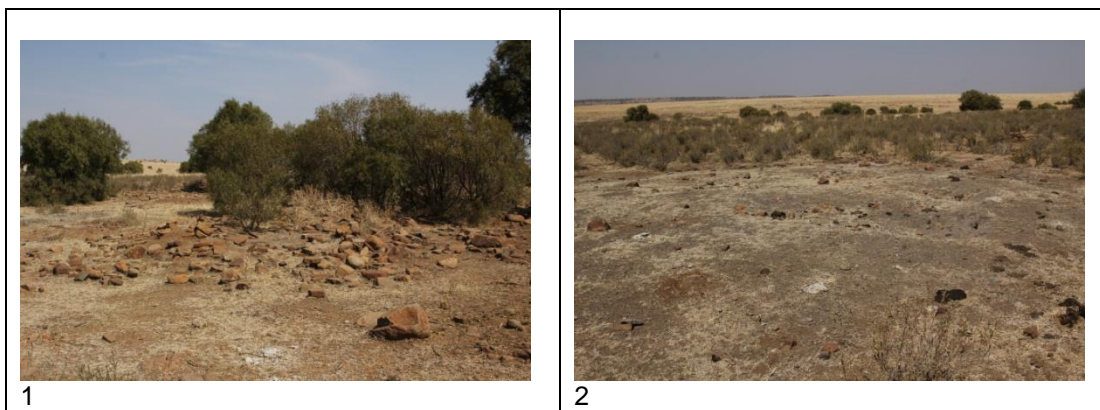
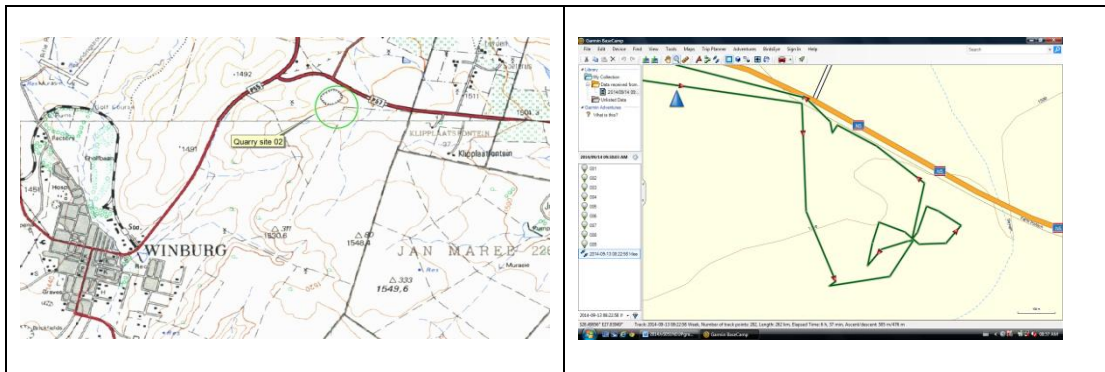


Fig. 6. The identified house structure and the refuse dump.

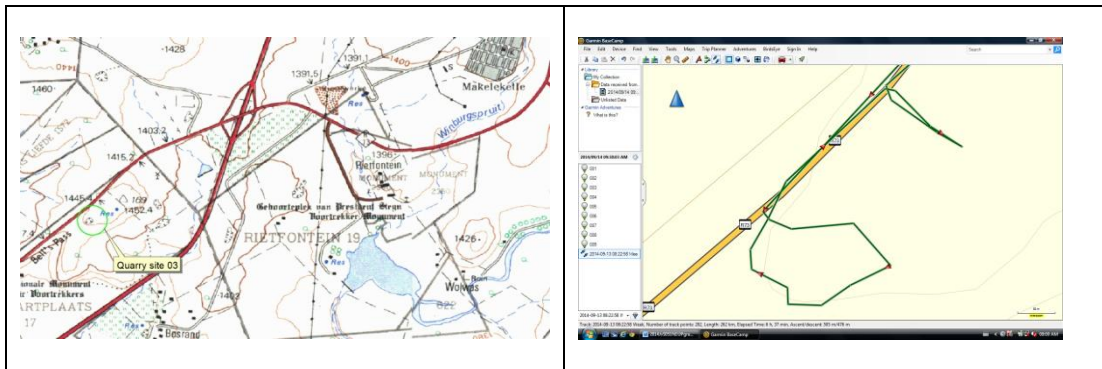
<b>No.</b>	Quarry site 2		
<b>Farm</b>		<b>Coordinates</b>	S 28.49782      E 27.04133



<b>NHRA Category</b>	None
<b>Significance</b>	None
<b>Protection</b>	None
<b>Management</b>	None

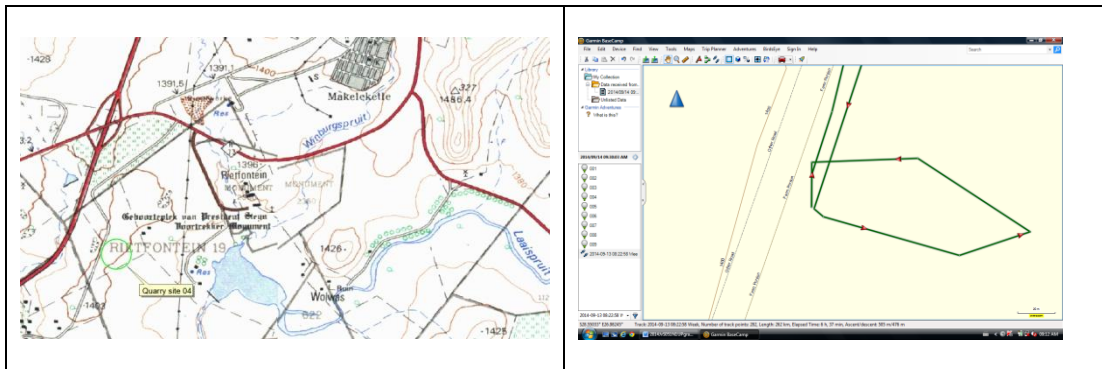


<b>No.</b>	Quarry site 3		
<b>Farm</b>	De Hartplaats 17	<b>Coordinates</b>	S 28.54809    E 26.96850



<b>NHRA Category</b>	None
<b>Significance</b>	None
<b>Protection</b>	None
<b>Management</b>	None

<b>No.</b>	Quarry site 4		
<b>Farm</b>	Rietfontein 19	<b>Coordinates</b>	S 28.55036 E 26.98405



<b>NHRA Category</b>	None
<b>Significance</b>	None
<b>Protection</b>	None
<b>Management</b>	None

## 6. SITE SIGNIFICANCE AND ASSESSMENT

### 6.1 Heritage assessment criteria and grading

The NHRA stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act:

- **Grade I:** Heritage resources with qualities so exceptional that they are of special national significance;
- **Grade II:** Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; and
- **Grade III:** Other heritage resources worthy of conservation, on a local authority level.

The occurrence of sites with a Grade I significance will demand that the development activities be drastically altered in order to retain these sites in their original state. For Grade II and Grade III sites, the applicable of mitigation measures would allow the development activities to continue.

### 6.2 Statement of significance

A matrix was developed whereby the above criteria, as set out in Sections 3(3) and 7 of the NHRA, No. 25 of 1999, were applied for each identified site (see Appendix 1). This allowed some form of control over the application of similar values for similar sites. Three categories of significance are recognized: low, medium and high. In terms of Section 7 of the NHRA, all the sites currently known or which are expected to occur in the study area are evaluated to have a grading as identified in the table below.

Table 1. Summary of identified heritage resources in the study area.

<b>Identified heritage resources</b>	
<i>Category, according to NHRA</i>	<i>Identification/Description</i>
<b>Formal protections (NHRA)</b>	
National heritage site (Section 27)	None
Provincial heritage site (Section 27)	None
Provisional protection (Section 29)	None
Place listed in heritage register (Section 30)	None
<b>General protections (NHRA)</b>	
structures older than 60 years (Section 34)	Yes
archaeological site or material (Section 35)	None
palaeontological site or material (Section 35)	None
graves or burial grounds (Section 36)	Yes
public monuments or memorials (Section 37)	None
<b>Other</b>	
Any other heritage resources (describe)	None

### 6.3 Impact assessment

Impact analysis of cultural heritage resources under threat of the proposed development, are based on the present understanding of the development.

The following sites, features and objects of cultural heritage significance have been identified to occur within the study area:

#### *Borrow Pit 2*

- The remains of a small rectangular house structure were identified. Approximately 35 m to the northwest, behind the house structure three graves were identified. These are only marked with stone cairns and no information about their age or who were buried there could be found.
  - Both these features seem to occur outside of the proposed borrow pit expansion and it would be possible to avoid them. It is recommended that these sites are left in place and that they are fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid these sites, they should be documented and excavated by a qualified archaeologist.

#### *Quarry Site 1*

- The remains of an old farm labourer homestead. It consists of the remains of at least two stone built structures as well as a large refuse dump. It is difficult impossible to date as it does not occur on the older versions of the cadastral maps and the surface finds (glass, metal, etc.) have no diagnostic features. However, the site is viewed to be older than sixty years.
  - As all these feature seem to occur on the western edge of the borrow pit, it would be possible to avoid them. It is recommended that the site is left in place and that it is fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid the site, it should be documented and excavated by a qualified archaeologist.

## 7. CONCLUSIONS

The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the area in which it is proposed to upgrade a section of the N1 national road, as well as fourteen borrow pits and quarries that are to be used for these upgrades.

The cultural landscape qualities of the region essentially consist of a rural setup. In this the human occupation is made up of a pre-colonial element consisting of limited Stone Age and Iron Age occupation, as well as a much later colonial (farmer) component. In recent years an urban element developed, expanding as a result of mining development in the region.

The following sites, features and objects of cultural heritage significance have been identified to occur within the study area:

#### *Borrow Pit 2*

- The remains of a small rectangular house structure were identified. Approximately 35 m to the northwest, behind the house structure three graves were identified. These are only marked with stone cairns and no information about their age or who were buried there could be found. These two features are probably related to each, making it a unit. Any impact would therefore have an impact on the whole.
  - Both these features seem to occur outside of the proposed borrow pit expansion and it would be possible to avoid them. It is recommended that these sites are left in place and that they are fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid these sites, they should be documented and excavated by a qualified archaeologist.

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  - As all these feature seem to occur on the western edge of the borrow pit, it would be possible to avoid them. It is recommended that the site is left in place and that it is fenced off with danger tape with a buffer of at least 10 metres from the outer most edge of the visible structures for the duration of the activities at the borrow pit. If it is impossible to avoid the site, it should be documented and excavated by a qualified archaeologist.

From a heritage point of view we therefore recommend that the proposed development can continue, on condition of acceptance of the above mitigation measures. We request that if archaeological sites or graves are exposed during construction work, it should immediately be reported to a heritage consultant so that an investigation and evaluation of the finds can be made.

## 8. REFERENCES

### 8.1 Data bases

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### 8.2 Literature

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### 8.3 Maps and aerial photographs

1: 50 000 Topocadastral maps  
Google Earth

## APPENDIX 1: CONVENTIONS USED TO ASSESS THE SIGNIFICANCE OF HERITAGE RESOURCES

### Significance

According to the NHRA, Section 2(vi) the **significance** of heritage sites and artefacts is determined by its aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical 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.

Matrix used for assessing the significance of each identified site/feature

<b>1. Historic value</b>				
Is it important in the community, or pattern of history				
Does it have strong or special association with the life or work of a person, group or organisation of importance in history				
Does it have significance relating to the history of slavery				
<b>2. Aesthetic value</b>				
It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group				
<b>3. Scientific value</b>				
Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage				
Is it important in demonstrating a high degree of creative or technical achievement at a particular period				
<b>4. Social value</b>				
Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons				
<b>5. Rarity</b>				
Does it possess uncommon, rare or endangered aspects of natural or cultural heritage				
<b>6. Representivity</b>				
Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects				
Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class				
Importance in demonstrating the principal characteristics 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.				
<b>7. Sphere of Significance</b>		High	Medium	Low
International				
National				
Provincial				
Regional				
Local				
Specific community				
<b>8. Significance rating of feature</b>				
1.	Low			
2.	Medium			
3.	High			

## APPENDIX 2. RELEVANT LEGISLATION

All archaeological and palaeontological sites and meteorites are protected by the National Heritage Resources Act (Act no 25 of 1999) as stated in Section 35:

(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

(4) No person may, without a permit issued by the responsible heritage resources authority-

- (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 which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

In terms of cemeteries and graves the following (Section 36):

(1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- (b) destroy, damage, alter, exhume, 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 equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.



### **APPENDIX 3: RELOCATION OF GRAVES**

What follows below is a somewhat generic approach on the steps and procedures to follow if graves are to be relocated:

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.
- SAHRA allows only archaeologists with an accreditation as Principal Investigator for the Relocation of Graves, to oversee such a process.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention to relocate the graves needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.
- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.
- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave.

#### **Information needed for the SAHRA permit application**

- The permit application needs to be done by an archaeologist.
- A map of the area where the graves have been located.
- A survey report of the area prepared by an archaeologist.
- All the information on the families that have identified graves.
- If graves have not been identified and there are no headstones to indicate the grave, these are then unknown graves and should be handled as if they are older than 60 years. This information also needs to be given to SAHRA.

- A letter from the landowner giving permission to the developer to exhume and relocate the graves.
- A letter from the new cemetery confirming that the graves will be reburied there.
- Details of the farm name and number, magisterial district, and GPS coordinates of the gravesite.