

**Cultural Heritage Survey of the Rosslyn Norite Quarry, on Portions 34, 35  
72 & 73 of the Farm Klipfontein 268JR, Rosslyn, Tshwane Municipality**

For

**Umhlaba Environmental Consulting cc  
P.O. Box 731504  
Fairland  
2030**

By

**Francois P Coetzee  
Department of Anthropology & Archaeology  
University of South Africa  
PO Box 392  
Pretoria  
0003  
Tel: (012) 429 6297  
Fax: (012) 429 6091  
coetzfp@unisa.ac.za**

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## Executive Summary

The Zwartkoppies Mountain range, of which the farm Klipfontein 268JR forms part, is well known for its high concentration of Late Iron Age stone walled settlements.

### *Iron Age sites*

The two stone-walled Late Iron Age (AD 1640 – AD 1830s) settlement recorded during the survey are protected by the South African Heritage Resources Act (NHRA) (Act no. 25 of 1999) and is highly significant due to its scientific value and potential contribution to the current debates in archaeology.

In this regard the following mitigation measures are proposed if impact is envisaged:

- Phase 2 investigation (surveying, mapping & excavations)
- Permit from SAHRA for destruction

### *Historic sites*

The foundation of one historic house was recorded.

No Stone Age artefacts, features or associated knapping sites were found during the survey of the area.

Also note the following:

It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* **NHRA (Act No. 25 of 1999)**, Section 36 (6)).

## Definitions

Midden: Refuse that accumulates in a concentrated heap.

Stone Age: An archaeological term used to define a period of stone tool use and manufacture (see Table 3)

Iron Age: An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture (see Table 3)

## 1. Introduction

The aim of this cultural heritage survey is to record and document cultural heritage remains consisting of visible archaeological and historical artefacts, structures (including graves) and settlements of cultural significance within the boundaries of the Rosslyn Norite Quarry. This report forms part of an amended EMP process and was requested by Umhlaba Environmental Consulting.

Please note that an Archaeological Survey of the Rosslyn Quarry was conducted in September 1992 by TN Huffman and HD van der Merwe. These findings have been noted in this report. Although several Stone Age, Iron Age and historic sites were recorded during this survey, only a few (Late Iron Age stone walled sites) have been preserved. Furthermore, some of the recorded sites fall outside the survey area. It is also difficult to correlate the map of the report with the existing structures at the quarry.

## 2. Terms of Reference

The terms of reference of this survey are as follows:

- \* Provide a detailed description of all archaeological artefacts, structures (including graves) and settlements
- \* Estimate the level of significance/importance of the archaeological remains within the area
- \* Assess any possible impact on the archaeological and historical remains within the area emanating from the proposed development activities
- \* Propose possible mitigation measures provided that such action is necessitated by the development

## 3. Nature of the Proposed Activity or Development

The site consists of an active norite quarry. They plan to expand some of the workings and to reshape the quarry pit.

## 4. Definitions and Approach

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited on or in the ground.
- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite non-renewable and irreplaceable.
- All archaeological remains, artificial features and structures older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory. No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage**

**Resources Agency (SAHRA).** Full cognisance is taken of this Act in making recommendations in this report.

- Cognisance will also be taken of the **Mineral and Petroleum Resources Development Act (Act No 28 of 2002)** and the **National Environmental Management Act (Act No 107 of 1998)** when making any recommendations.
- Human remains older than 60 are protected by the **National Heritage Resources Act**, with reference to Section 36. Human remains that are less than 60 years old are protected by the **Human Tissue Act (Act 65 of 1983 as amended)**.
- **Mitigation guidelines:**

<b>Significance Rating</b>	<b>Action</b>
Not protected	1. None
Low	2a. Recording and documentation (Phase 1) of site adequate; no further action required
	2b. Controlled sampling (shovel test pits, auguring), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction
Medium	3. Excavation of representative sample, C <sup>14</sup> dating, ), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction [including 2a & 2b]
High	4a. Nomination for listing on Heritage Register (National, Provincial or Local) (Phase 2 & 3 investigation); site management plan; permit required if utilised for education or tourism 4b. Graves: Locate demonstrable descendants through social consulting; obtain permits from applicable legislation, ordinances and regional by-laws; exhumation and reinterment [including 2a, 2b & 3]

- Rating the **significance of the impact** on a historical or archaeological site is linked to the significance of the site itself. If the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low.
- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.
- The guidelines as provided by the **NHRA (Act No. 25 of 1999)** in Section 3, with special reference to subsection 3, and the Australian ICOMOS Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.
- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area

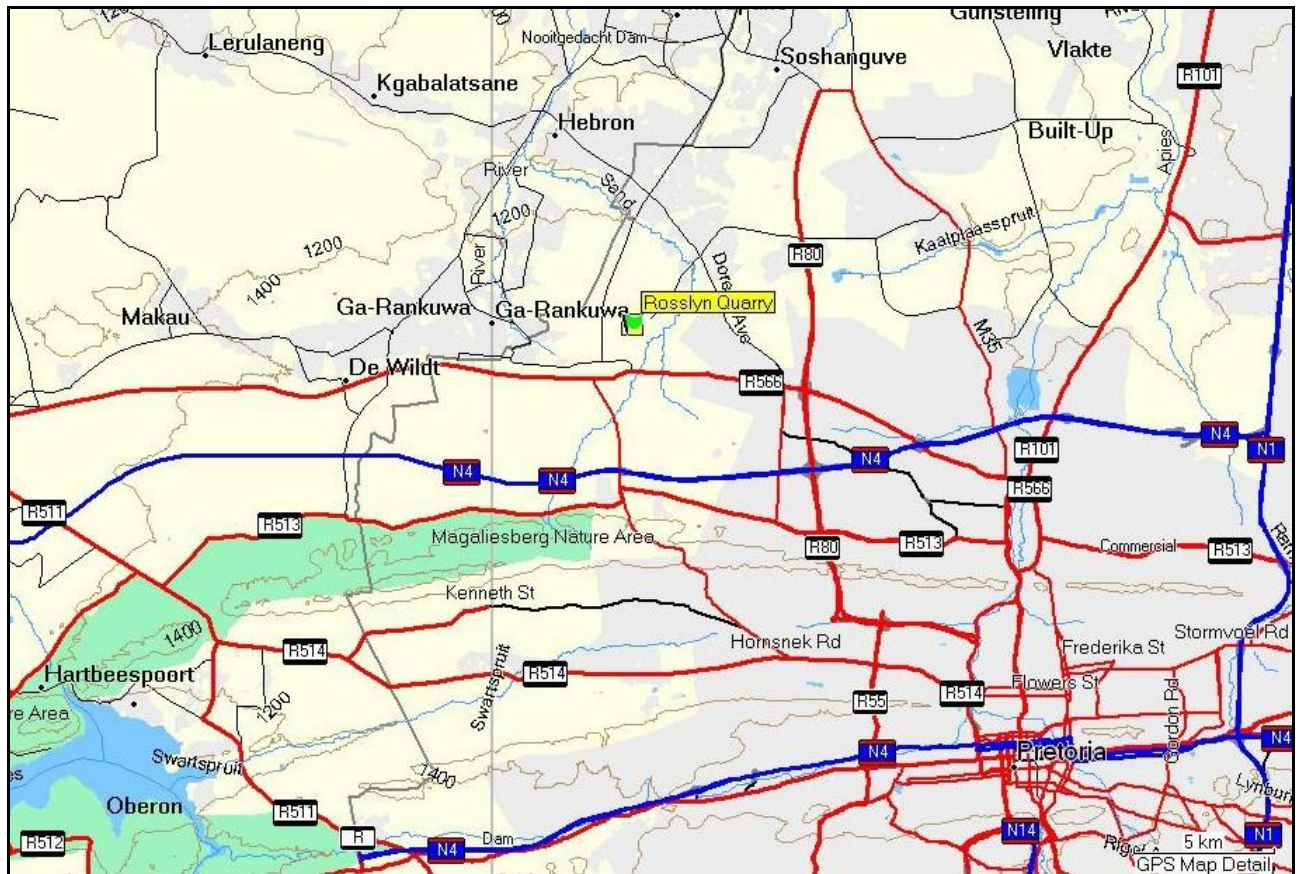
during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* NHRA (Act No. 25 of 1999), Section 36 (6)).

- A copy of this report will be lodged with the **South African Heritage Resources Agency (SAHRA)** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4).
- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the South African Heritage Resources Agency (SAHRA) (or relevant PHRA).

## 5. Methodology

### 5.1 Maps and Other Sources

The survey area is localised by using maps supplied by the client. Please refer to Maps 1 – 3.



Map 1: Geographical context of survey area.



**Map 2: Geographical features of survey area.**

## 5.2 Fieldwork

A pedestrian survey was conducted on 13 August 2009 of the Rosslyn Quarry property (see Map 2).

## 5.3 Visibility and Constraints

Although no severe restrictions were encountered, the central survey area is very mountainous and in places severely overgrown. Also note that due to the subterranean nature of cultural remains this report should not be construed as a record of all archaeological and historic sites in the area.

## 6. Description of Study Area

The survey area is characterised by an extensive rocky outcrop and associated hillocks. However, the area is currently dominated by the main quarry and associated infrastructure. The quarry is situated on portions Portion 34, 35, 72 and 73 of the farm Klipfontein 268JR.



**Figure 1: General view of the mining area and associated infrastructure**

## 7. Archaeological Sequence

PERIOD	APPROXIMATE DATE
Early Stone Age	More than c. 2 million years ago - c. 250 000 years ago
Middle Stone Age	c. 250 000 years ago – c. 25 000 years ago
Later Stone Age (Includes San Rock Art)	c. 25 000 years ago - c. AD 200 (up to historic times in certain areas)
Early Iron Age	c. AD 400 - c. AD 1025
Late Iron Age (Stonewalled sites)	c. AD 1025 - c. AD 1830 (c. AD 1640 - c. AD 1830)

## 8. Archaeological Context

### 8.1 Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore kill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves



and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

## 8.2 Iron Age Sequence

In the northern regions of South Africa at least three settlement phases have been distinguished for early prehistoric agropastoralist settlements during the **Early Iron Age** (EIA). Diagnostic pottery assemblages can be used to infer group identities and to trace movements across the landscape. The first phase of the Early Iron Age, known as **Happy Rest** (named after the site where the ceramics were first identified), is representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase of **Diamant** is dated to AD 600 - AD 900 and was first recognized at the eponymous site of Diamant in the western Waterberg. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water. However, please note that there are no EIA sites in the Free State.

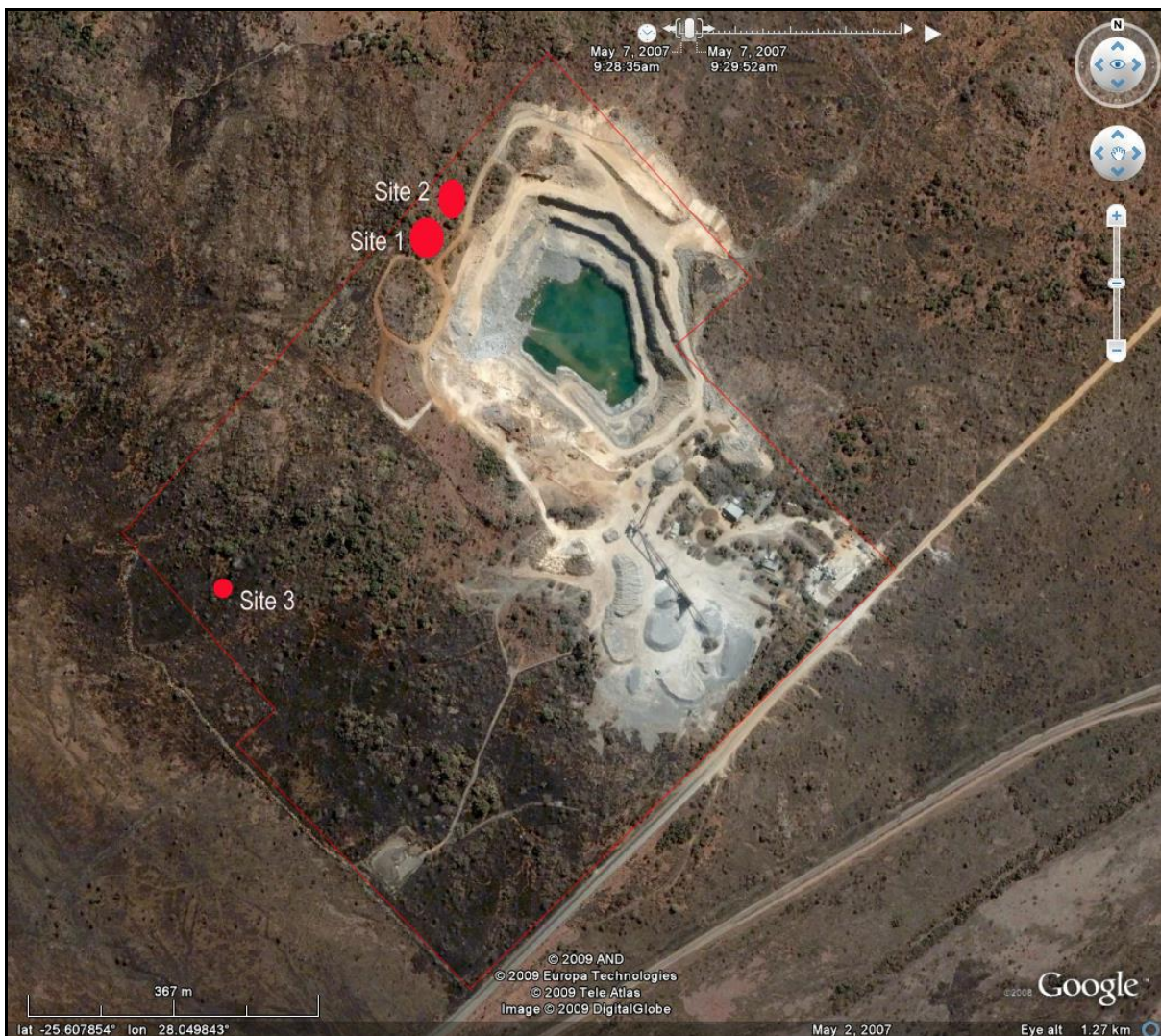
The **Late Iron Age** (LIA) settlements are characterised by stone-walled enclosures situated on defensive hilltops c. AD 1640 - AD 1830). This occupation phase has been linked to the arrival of ancestral Northern Sotho, Tswana and Southern Ndebele (Nguni-speakers) in the northern and Waterberg regions, and dates from the sixteenth to seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19<sup>th</sup> century settlements with multichrome Moloko pottery commonly attributed to the Sotho-Tswana. These settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called *difaqane* (or *mfecane*).

## 8.3 Ethno-historical Context

According to ethnographic evidence the Bakgatla бага Mmakau, a Tswana-speaking group, settled at Gammakau in Sjambok's location on the farm Hoekfontein 432JQ in the Odi District (Breutz 1989:348; also see Van Schalkwyk *et al* 2000:63). The farms Hoekfontein 432JQ and Klipfontein 268JR generally fall within the Bakgatla бага Mmakau's sphere of influence.

## 9. Description of Sites

The Zwartkoppies Mountain range is well known for its high concentration of stone walled Late Iron Age settlements. Occupation can be traced back to the AD 1400s to a place in the area called Mabyanamatswana (see Breutz 1989). On the farm Hoekfontein, situated to the west of the farm Klipfontein an archaeological impact assessment revealed an extensive Late Iron Age settlement. This investigation was prompted when multiple graves were exposed when excavations were done for a proposed pipeline. It is important to note that intensive archaeological research has been conducted on a Late Iron Age settlement on various portions of the farm Klipfontein 268JR for the last few years. This site is situated northwest of the quarry (across the tarred road). During this ongoing scientific research project several excavations have been completed and the site has also been surveyed.



Map 3: Location of heritage sites

## 9.1 Site 1

<b>A. GENERAL SITE DESCRIPTION</b>				
<p>The site consists of an extensive Late Iron Age stone walled site which consists of various enclosure and periphery walling. No middens or other features were recorded. An access road runs adjacent to the site.</p> <p>The structures are older than 60 years and therefore protected by the NHRA (Act no 25 of 1999).</p>				
<b>B. SITE EVALUATION</b>				
<b>B1. HERITAGE VALUE</b>			<b>Yes</b>	<b>No</b>
<b>Historic Value</b>				
It has importance to the community or pattern of South Africa's history or precolonial history.			√	
It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.				√
It has significance relating to the history of slavery in South Africa.				√
<b>Aesthetic Value</b>				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				√
<b>Scientific Value</b>				
It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage.			√	
It has importance in demonstrating a high degree of creative or technical achievement at a particular period.				√
It has importance to the wider understanding of temporal changes within cultural landscapes, settlement patterns and human occupation.			√	
<b>Social Value</b>				
It has marked or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).				√
<b>Tourism Value</b>				
It has significance through contributing towards the promotion of a local sociocultural identity and can be developed as a tourist destination.				√
<b>Rarity Value</b>				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				√
<b>Representative Value</b>				
It is of importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects.			√	
<b>B2. REGIONAL CONTEXT</b>				
Other similar sites in the regional landscape.			√	
<b>B3. CONDITION OF SITE</b>				
Integrity of deposits/structures.		Stable		
<b>C. SPHERE OF SIGNIFICANCE</b>		<b>High</b>	<b>Medium</b>	<b>Low</b>
International				√

National			√
Provincial		√	
Local	√		
Specific community	√		
<b>D. FIELD REGISTER RATING</b>			
National/Grade 1 [should be registered, retained]			
Provincial/Grade 2 [should be registered, retained]			
Local/Grade 3A [should be registered, mitigation not advised]			
Local/Grade 3B [High significance; mitigation, partly retained]			
Generally Protected A [High/Medium significance, mitigation]			√
Generally protected B [Medium significance, to be recorded]			
Generally Protected C [Low significance, no further action]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			
High			√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• The site is outside the proposed extended area to enlarge the pit</li> <li>• Due to blasting activities a minimum 20 metres buffer zone should be maintained</li> <li>• The site should be fenced off for better management and to prevent accidental damage</li> <li>• However, if impact is envisaged in the future also note: <ul style="list-style-type: none"> <li>○ Phase 2 investigation (surveying, mapping &amp; excavations)</li> <li>○ Permit from SAHRA for destruction</li> </ul> </li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act no. 25 of 1999)</li> </ul>			
<b>I. PHOTOGRAPHS</b>			



Figure 2: A section of the stone walling of the site

**9.2 Site 2**

**A. GENERAL SITE DESCRIPTION**

The site consists of an extensive Late Iron Age stone walled site which consists of various enclosure and periphery walling. No middens or other features were recorded. An access road runs adjacent to the site.

The structures were probably not older than 60 years and therefore not protected by the NHRA (Act no 25 of 1999).

**B. SITE EVALUATION**

**B1. HERITAGE VALUE**

	Yes	No
<b>Historic Value</b>		
It has importance to the community or pattern of South Africa’s history or precolonial history.	√	
It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.		√
It has significance relating to the history of slavery in South Africa.		√
<b>Aesthetic Value</b>		
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.		√
<b>Scientific Value</b>		
It has potential to yield information that will contribute to an understanding of South Africa’s natural and cultural heritage.	√	
It has importance in demonstrating a high degree of creative or technical achievement at a particular period.		√
It has importance to the wider understanding of temporal changes within cultural landscapes, settlement patterns and human occupation.	√	
<b>Social Value</b>		

It has marked or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).		√
<b>Tourism Value</b>		
It has significance through contributing towards the promotion of a local sociocultural identity and can be developed as a tourist destination.		√
<b>Rarity Value</b>		
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.		√
<b>Representative Value</b>		
It is of importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects.	√	
<b>B2. REGIONAL CONTEXT</b>		
Other similar sites in the regional landscape.	√	
<b>B3. CONDITION OF SITE</b>		
Integrity of deposits/structures.	Stable	
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>
International		√
National		√
Provincial		√
Local	√	
Specific community	√	
<b>D. FIELD REGISTER RATING</b>		
National/Grade 1 [should be registered, retained]		
Provincial/Grade 2 [should be registered, retained]		
Local/Grade 3A [should be registered, mitigation not advised]		
Local/Grade 3B [High significance; mitigation, partly retained]		
Generally Protected A [High/Medium significance, mitigation]		√
Generally protected B [Medium significance, to be recorded]		
Generally Protected C [Low significance, no further action]		
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>		
Low		
Medium		
High		√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>		
None		√
Peripheral		
Destruction		
Uncertain		
<b>G. RECOMMENDED MITIGATION</b>		
<ul style="list-style-type: none"> <li>• The site is outside the proposed extended area to enlarge the pit</li> <li>• Due to blasting activities a minimum 20 metres buffer zone should be maintained</li> <li>• The site should be fenced off for better management and to prevent accidental damage</li> <li>• However, if impact is envisaged in the future also note: <ul style="list-style-type: none"> <li>○ Phase 2 investigation (surveying, mapping &amp; excavations)</li> <li>○ Permit from SAHRA for destruction</li> </ul> </li> </ul>		
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>		
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act no. 25 of 1999)</li> </ul>		

**I. PHOTOGRAPHS**



**Figure 3: A section of the stone walling of the site**

**9.3 Site 3**

**A. GENERAL SITE DESCRIPTION**

The site consists of the foundations of a square single room house with a north facing veranda. The size of the foundation is approximately 3 x 4 metres. No middens were recorded near the structure.

The structure is probably older than 60 years and therefore protected by the NHRA (Act no 25 of 1999).

**B. SITE EVALUATION**

**B1. HERITAGE VALUE**

Yes	No
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**Historic Value**

It has importance to the community or pattern of South Africa’s history or precolonial history.		√
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It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.		√
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It has significance relating to the history of slavery in South Africa.		√
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**Aesthetic Value**

It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.		√
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**Scientific Value**

It has potential to yield information that will contribute to an understanding of South Africa’s natural and cultural heritage.	√	
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It has importance in demonstrating a high degree of creative or technical achievement at a particular period.		√
It has importance to the wider understanding of temporal changes within cultural landscapes, settlement patterns and human occupation.		√
<b>Social Value</b>		
It has marked or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).		√
<b>Tourism Value</b>		
It has significance through contributing towards the promotion of a local sociocultural identity and can be developed as a tourist destination.		√
<b>Rarity Value</b>		
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.		√
<b>Representative Value</b>		
It is of importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects.		√
<b>B2. REGIONAL CONTEXT</b>		
Other similar sites in the regional landscape.	√	
<b>B3. CONDITION OF SITE</b>		
Integrity of deposits/structures.	Demolished, stable	
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>
International		√
National		√
Provincial		√
Local		√
Specific community		√
<b>D. FIELD REGISTER RATING</b>		
National/Grade 1 [should be registered, retained]		
Provincial/Grade 2 [should be registered, retained]		
Local/Grade 3A [should be registered, mitigation not advised]		
Local/Grade 3B [High significance; mitigation, partly retained]		
Generally Protected A [High/Medium significance, mitigation]		
Generally protected B [Medium significance, to be recorded]		
Generally Protected C [Low significance, no further action]		√
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>		
Low		√
Medium		
High		
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>		
None		√
Peripheral		
Destruction		
Uncertain		
<b>G. RECOMMENDED MITIGATION</b>		
<ul style="list-style-type: none"> <li>• The site is outside the proposed extended area to enlarge the pit</li> <li>• However if impact is envisaged in the future: <ul style="list-style-type: none"> <li>○ Phase 2 investigation (surveying, mapping &amp; excavations)</li> <li>○ Permit from SAHRA for destruction</li> </ul> </li> </ul>		



**H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS**

- National Heritage Resources Act (Act no 25 of 1999)

**I. PHOTOGRAPHS**



Figure 4: remains of the stone foundation of a house

**10. Summary of Sites**

Site	Coordinates	Site Type	Statement of Significance	Impact	Mitigation
1	25.604468°S 28.047621°E	Late Iron Age settlement	High	None	None
2	25.603742°S 28.048314°E	Late Iron Age settlement	High	None	None
12	25.608573°S 28.045246°E	Historic house foundation	Low	None	None

## 11. Conclusions and Recommendations

### *Iron Age sites*

The two stone-walled Late Iron Age (AD 1640 – AD 1830s) settlement recorded during the survey are protected by the South African Heritage Resources Act (NHRA) (Act no. 25 of 1999) and is highly significant due to its scientific value and potential contribution to the current debates in archaeology.

In this regard the following mitigation measures are proposed if impact is envisaged:

- Phase 2 investigation (surveying, mapping & excavations)
- Permit from SAHRA for destruction

### *Historic sites*

The foundation of one historic house was recorded.

No Stone Age artefacts, features or associated knapping sites were found during the survey of the area.

Also note the following:

It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place (*cf.* **NHRA (Act No. 25 of 1999)**, Section 36 (6)).

## **Bibliography**

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