



**PGS**  
**HERITAGE & GRAVE**  
**RELOCATION CONSULTANTS**

## **HERITAGE SCOPING ASSESSMENT**

**NGWENYA MINING AND EXPLORATION (PTY) LTD**

***Application for mining permit***

***A portion of Portion 19 of the farm Kafferskraal 381 IR, Gauteng Province***

**Version 1.0**

**DMR Reference: GP30/5/1/1/2 (296)PR**

**28 August 2012**


**ACKNOWLEDGEMENT OF RECEIPT**

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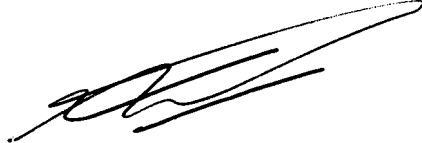
- i. The results of the project;
- ii. The technology described in any report ; and,
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### Declaration of Independence

*The report has been compiled by PGS Heritage & Grave Relocation Consultants an appointed Heritage Specialist for Geo Soil Water (Pty) Ltd .The views stipulated in this report are purely objective and no other interests are displayed during the decision making processes discussed in the Heritage Scoping Assessment Process.*

**ARCHAEOLOGICAL CONSULTANT:** PGS Heritage & Grave Relocation Consultants

**PRINCIPAL INVESTIGATOR:** Wouter Fourie



**SIGNATURE:** \_\_\_\_\_

## **Executive Summary**

PGS Heritage and Grave Relocation Consultants (PGS) was appointed Geo Soil Water (Pty) Ltd, to undertake a Heritage Scoping for the proposed mining permit application on a portion of Portion 19 of the farm Kafferskraal 381 IR, Heidelberg, Gauteng Province.

During the survey no heritage resources were found in the study area, and no impact on any heritage resources is foreseen for this small scale mining activity. The larger landscape is however rich in history and archaeology and will require an in depth HIA if the mining activity extends outside the current application area.

### *General recommendation on archaeological work*

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

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**ABREVIATIONS**

<b>Acronyms</b>	<b>Description</b>
AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
AMAFA	
CRM	Cultural Resource Management
DEA	Department of Environmental Affairs
DWA	Department of Water Affairs
EIA practitioner	Environmental Impact Assessment Practitioner
EIA	Environmental Impact Assessment
ESA	Early Stone Age
GIS	Geographic Information System
GPS	Global Positioning System
HIA	Heritage Impact Assessment
HWC	Heritage Western Cape
I&AP	Interested & Affected Party
LSA	Late Stone Age
LIA	Late Iron Age
MSA	Middle Stone Age
MIA	Middle Iron Age
NEMA	National Environmental Management Act
NID	Notice of Intent to develop
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Agency
PSSA	Palaeontological Society of South Africa
ROD	Record of Decision
SADC	Southern African Development Community
SAHRA	South African Heritage Resources Agency

## TERMS & DEFINITION

### Archaeological resources

This includes:

- i. material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
- ii. rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- iii.
- iv. wrecks, being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- v. features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

### Cultural significance

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

### Development

This means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in the change to the nature, appearance or physical nature of a place or influence its stability and future well-being, including:

- i. construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- ii. carrying out any works on or over or under a place;
- iii. subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- iv. constructing or putting up for display signs or boards;
- v. any change to the natural or existing condition or topography of land; and
- vi. any removal or destruction of trees, or removal of vegetation or topsoil

### Heritage resources

This means any place or object of cultural significance



## 1. INTRODUCTION

PGS Heritage and Grave Relocation Consultants (PGS) was appointed Geo Soil Water (Pty) Ltd, to undertake a Heritage Scoping for the proposed mining permit application on a portion of Portion 19 of the farm Kafferskraal 381 IR, Heidelberg, Gauteng Province.

### 1.1 Project Background

Ngwenya Mining and Exploration (Pty) Ltd (“Ngwenya”) has received notice of acceptance from the Department of Mineral Resources (DMR) in respect of its Application for a Mining Permit for iron magnetite on the farm Kafferskraal 381IR, Portions 19 (1.5 hectares thereof).

The applicant has a prospecting right over the property and has completed the prospecting operations. The prospecting showed that there is good quality magnetite worth mining by opencast truck and shovel method since the magnetite is only covered by a very thin layer of soil. The magnetite ore body is easily mineable and reaches a maximum thickness of 10 meters.

### 1.2 Site location

The site is located some 16 kilometres west of the town of Heidelberg and just south of the Suikerbosrand Nature Reserve (**Figure 1**).

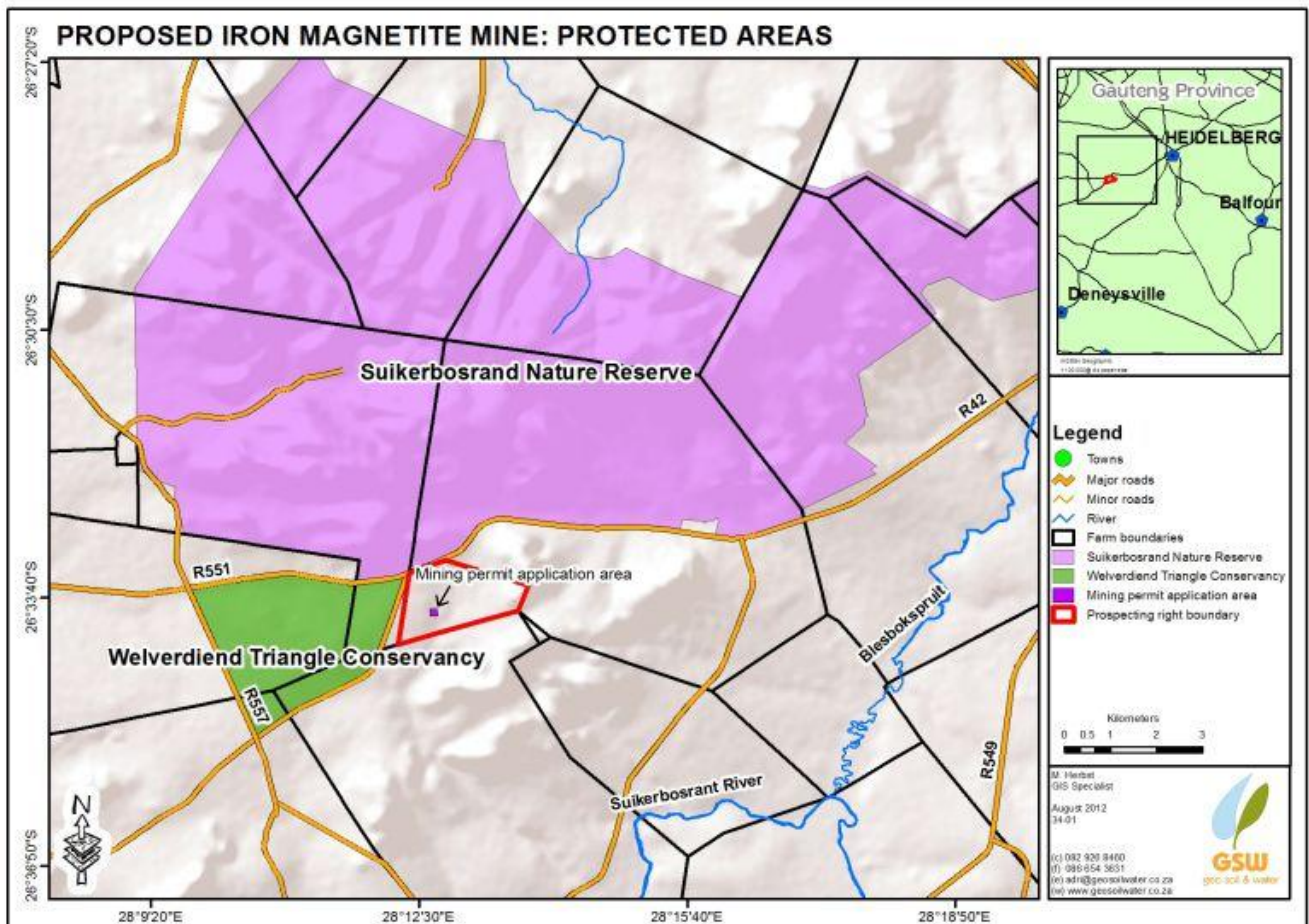


Figure 1 – Locality Map of the Study Area

### 1.3 Legislative Framework

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

- i. National Environmental Management Act (NEMA) Act 107 of 1998
- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
- iii. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
- iv. Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to the identification, evaluation and assessment of cultural heritage resources.

- i. National Environmental Management Act (NEMA) Act 107 of 1998 as promulgated in the Regulations.
  - a. Basic Environmental Assessment (BEA) – Section (23)(2)(d)
  - b. Environmental Scoping Report (ESR) – Section (29)(1)(d)
  - c. Environmental Impacts Assessment (EIA) – Section (32)(2)(d)
  - d. Environmental Management Plan (EMP) – Section (34)(b)

- ii. National Heritage Resources Act (NHRA) Act 25 of 1999
  - a. Protection of Heritage resources – Sections 34 to 36; and
  - b. Heritage Resources Management – Section 38
  
- i. Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
  - a. Section 39(3)
- ii. Development Facilitation Act (DFA) Act 67 of 1995
  - a. The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development Facilitation Act, 1995. Section 31.

The NHRA stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34(1) of the NHRA states that, “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority...” NHRA is utilized as the basis for the identification, evaluation and management of heritage resources and in the case of CRM those resources specifically impacted on by development as stipulated in Section 38 of NHRA, and those developments administered through NEMA, MPRDA and the DFA legislation. In the latter cases the feedback from the relevant heritage resources authority is required by the State and Provincial Departments managing these Acts before any authorizations are granted for development. The last few years have seen a significant change towards the inclusion of heritage assessments as a major component of Environmental Impacts Processes required by NEMA and MPRDA. This change requires us to evaluate the Section of these Acts relevant to heritage (Fourie, 2008)

The NEMA 23(2)(b) states that an integrated environmental management plan should, “...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage”. A study of subsections (23)(2)(d), (29)(1)(d), (32)(2)(d) and (34)(b) and their requirements reveals the compulsory inclusion of the identification of cultural resources, the evaluation of the impacts of the proposed activity on these resources, the identification of alternatives and the management procedures for such cultural resources for each of the documents noted in the Environmental Regulations. A further important aspect to be taken account of in the Regulations under NEMA is the Specialist Report requirements laid down in Section 33 of the regulations (Fourie, 2008).

MPRDA defines ‘environment’ as it is in the NEMA and therefore acknowledges cultural resources as part of the environment. Section 39(3)(b) of this Act specifically refers to the evaluation, assessment and identification of impacts on all heritage resources as identified in Section 3(2) of the National Heritage Resources Act that are to be impacted on by activities governed by the MPRDA. Section 40 of the same Act requires the consultation with any State Department administering any law that has relevance on such an application through Section 39 of the

MPRDA. This implies the evaluation of Heritage Assessment Reports in Environmental Management Plans or Programmes by the relevant heritage authorities (Fourie, 2008)

In accordance with the legislative requirements and EIA rating criteria, the regulations of the South African Heritage Resources Agency (SAHRA) and Association of Southern African Professional Archaeologists (ASAPA) have also been incorporated to ensure that a comprehensive and legally compatible HSR report is compiled.

#### **1.4 Assumptions and Limitations**

Not subtracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the area. Various factors account for this, including the subterranean nature of some archaeological sites and the current dense vegetation cover in some areas. As such, should any heritage features and/or objects not included in the present inventory be located or observed, an archaeologists must immediately be contacted.

Such observed or located heritage features and/or objects may not be disturbed or removed in any way until such time as the archaeologist has been able to make an assessment as to the significance of the site (or material) in question. This applies to graves and cemeteries as well. In the event that any graves or burial places are located during the development the procedures and requirements pertaining to graves and burials will apply.

## **2. ASSESMEN METHODOLOGY & APPROACH**

### **2.1 General Approach**

This chapter describes the evaluation criteria to be used for the sites listed below and to be identified during the ground thruthing.

The significance of archaeological sites was based on four main criteria:

- site integrity (i.e. primary vs. secondary context),
- amount of deposit, range of features (e.g., stonewalling, stone tools and enclosures),
- Density of scatter (dispersed scatter)
  - Low - <10/50m<sup>2</sup>
  - Medium - 10-50/50m<sup>2</sup>
  - High - >50/50m<sup>2</sup>
- uniqueness; and
- potential to answer present research questions.

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:

- A - No further action necessary;
- B - Mapping of the site and controlled sampling required;
- C – Extensive mapping before destruction and preserve section where possible
- D - Preserve site, or extensive data collection and mapping of the site; and
- E - Preserve site

Impacts on these sites by the development will be evaluated as follows

#### Impact

The potential environmental impacts that may result from the proposed development activities.

#### Nature and existing mitigation

Natural conditions and conditions inherent in the project design that alleviate (control, moderate, curb) impacts. All management actions, which are presently implemented, are considered part of the project design and therefore mitigate impacts.

## 2.2 Evaluation Methods

### Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

Table 2: Site significance classification standards as prescribed by SAHRA

<b>FIELD RATING</b>	<b>GRADE</b>	<b>SIGNIFICANCE</b>	<b>RECOMMENDED MITIGATION</b>
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)

Generally Protected A (GP.A)	-	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium Significance	Recording before destruction
Generally Protected C (GP.A)	-	Low Significance	Destruction

### 2.3 Environmental Impact Significance Rating Methodology

To ensure uniformity, the assessment of potential impacts will be addressed in a standard manner so that a wide range of impacts are comparable. For this reason, a clearly defined rating scale will be provided to the specialist to assess the impacts associated with their investigation. Each impact identified will be assessed in terms of probability (likelihood of occurring), extent (spatial scale), intensity (severity) and duration (temporal scale). To enable a scientific approach to the determination of the impact significance (importance), a numerical value will be linked to each rating scale. The sum of the numerical values will define the significance. The following criteria will be applied to the impact assessment for the magnetite mine EIA/EMP.

#### 2.3.1 Environmental Impact Rating Scale

	Category	Rating	Description
<b>PROBABILITY</b>	Improbable	0	Less than 40% sure of a particular fact or the likelihood of that impact occurring.
	Possible	1	40% to 70% sure of a particular fact or the likelihood of that impact occurring.
	Probable	2	70% to 90% sure of a particular fact or the likelihood of that impact occurring.
	Definite	3	More than 90% sure of a particular fact or the likelihood of that impact occurring.
<b>EXTENT</b>	Site	1	Immediate project site
	Local	2	Up to 5km form the project site
	Regional	3	20km radius from the project site
	Provincial	4	Provincial
	National	5	South Africa
	International	6	Neighbouring countries/overseas
<b>DURATION</b>	Very short-term	1	Less than 1 year
	Short-term	2	1-5 years
	Medium-term	3	5 to 10 years
	Long-term	4	10 to 15 years
	Very long-term	5	Greater than 15 years
	Permanent	6	Permanent
<b>INTENSITY</b>	Very low	0	Where the impact affects the environment in such a way that natural, cultural and social functions are not affected.
	Low	1	Where the impact affects the environment in such a way that natural, cultural and social functions are only marginally affected.

Medium	2	Where the affected environment is altered but natural, cultural and social functions and processes continue albeit in a modified way.
High	3	Where natural, cultural and social functions or processes are altered to the extent that it will temporarily cease.
Very low	0	Where the impact affects the environment in such a way that natural, cultural and social functions are not affected.
Very high	4	Where natural, cultural and social functions or processes are altered to the extent that it will permanently cease.

The significance is calculated by means of the following equation:

**Probability + Extent + Duration + Intensity**

### 2.3.2 Significance of Impact

	Rating	Description
<b>SIGNIFICANCE</b>	2 – 4	Low
	5 – 7	Low to moderate
	8 – 10	Moderate
	11 – 13	Moderate to high
	14 – 16	High
	17 – 19	Very high

### 2.3.3 Potential impact per activity

A list of the infrastructure and activities, required for the construction, operational and closure phases of the proposed magnetite mine, is detailed in the sections below. Please, refer to the mine layout plans (Figure 5) for the exact location of the activities listed and described below.

#### **Construction phase**

The following sections details the significance of the potential impact associated with the activities of the construction phase. The following infrastructure will be constructed:

- Fencing of the mine area,
- Construction/preparation of access road,
- Construction of mine haul roads,
- Construction of berms/pollution control structures,
- Construction of Security (Boom gates, Security house), and
- Open-pit development.

The main activities that will be undertaken during the construction phase include:

- Preparation of footprint areas, associated with the above mentioned infrastructure, which involve the removal of vegetation and topsoil stripping;
- Establishment of infrastructure, which will involve the presence of contractors/employees on site, movement of vehicles and waste generation.

### ***Operational phase***

The operational phase will comprise of open-pit mining. The following activities that could lead to potential impacts include:

Open-pit mining via drilling/blasting

Load/haul

### ***Decommissioning Period (Months 22 – 24)***

Shaping of the open-pit and re-instatement of roads will be done after mining is completed. Sidewalls will be shaped into the open-pit by dozing, to produce a depression that will blend with the adjacent topography. Topsoil will be spread out after landscaping of the shallow void and seeded.

## **3. DESCRIPTION OF AFFECTED ENVIRONMENT**

The site was evaluated during a day's field work. The site was surveyed through a selective walkthrough method to identify possible heritage resources in the demarcated study area. The site can be characterised as flat grass land.





*Figure 2 – General view of study area*

### **3.1 Desktop Study Findings**

#### *3.1.1 Cartographic findings*

##### ***2628CA Topographical Map, First Edition,***

Figure 3 depicts an enlarged section of the first edition of the 2628CA 1:50 000 topographical sheet. It was based on aerial photography done in 1948. The actual surveys were undertaken in 1953. The map was drawn by the Trigonometrical Survey Office in 1956.

The position of the study area is depicted by the red square line. No heritage sites or features are shown within or in close proximity to the study area.

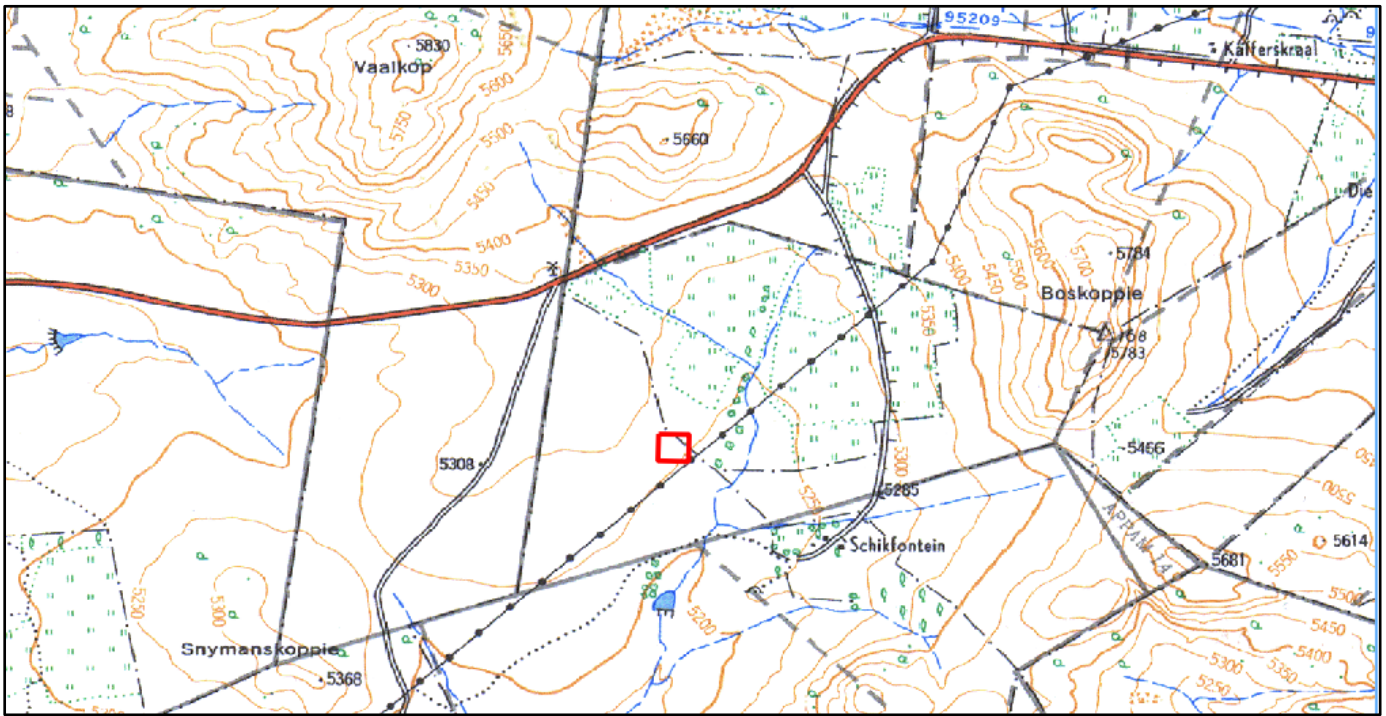


Figure 3 – First Edition of the 2628CC Topographical Map dated to 1954. The approximate position and boundary of the study area is shown.

### 3.1.2 Chronology of the area's history

DATE	DESCRIPTION
<b>1450 – 1650</b>	This period is associated with a Late Iron group referred to as the Ntsuanatsatsi facies of the Urewe Tradition (Huffman, 2007).
<b>1700 – 1820</b>	During the early Historic Period the Ntsuanatsatsi south of the Vaal River developed into the Makgwareng facies (Huffman, 2007).
<b>c. 1800s</b>	At the time a Tswana group known as the Khudu settled near the confluence of the Vaal and Suikerboschrand Rivers (Bergh, 1999).
<b>1823 – 1827</b>	The Matabele of Mzilikazi settled in the central reaches of the Vaal River after leaving present-day KwaZulu-Natal ( <a href="http://www.mk.org.za">www.mk.org.za</a> ).
<b>October 1834</b>	A group of Griqua hunters under the leadership of Pieter David were hunting near the confluence of the Vaal and Wilge Rivers when they were attacked here by Mzilikazi's Khumalo Ndebele (Bergh, 1999).
<b>February 1836</b>	Voortrekker leader Louis Trichardt moved with his party to the confluence of the Wilge and Vaal Rivers and stayed on the western bank of the Wilge for a while before crossing over the Vaal (d'Assonville, 2002). They subsequently met up with Lang Hans van Rensburg at Elandspruit, near present-day Heidelberg (Bergh, 1999).
<b>29 December 1880</b>	Prisoners-of-war Captains Elliott and Lambert were fired on by their Boer escort while crossing the Lies Drift and Elliot was killed. This event made headlines worldwide and a case of murder was opened in the Transvaal high court (d'Assonville, 2002; Green, 1966).

<b>1899 – 1902</b>	Although no evidence for battles or skirmishes in the vicinity of the study area during the South African War could be found, d’Assonville (2002) refers to the fact that the Boer farms from the area were burnt down and that women and children were taken to concentration camps. He relates that the farmstead on Zandfontein (directly opposite the Vaal River from Koppiesfontein) was burnt down in July 1901 and the women and children taken to the Vredefortweg and Heilbron Camps. It is interesting to note that the forced movement of women and children to the concentration camps were not race or gender exclusive. During the war the black families staying on farms were also taken to the concentration camps.
<b>1934 - 1938</b>	The construction of the Vaal Dam was undertaken jointly by Rand Water and the Department of Irrigation. Construction commenced in 1934 and the aim of the dam was to address the rapidly increasing need for water of the population of the Witwatersrand. The dam wall was completed in 1938 with a wall height of 54.2 m above the lowest foundation and a full supply capacity of 994 million m <sup>3</sup> . In the early 1950s the wall was raised to 60.3m resulting in a capacity of 2 188 million m <sup>3</sup> . In 1985 the wall was raised to a height of 63.4m above the lowest foundation. This increased the capacity of the dam to 2 536 million m <sup>3</sup> ( <a href="http://www.dwaf.gov.za">www.dwaf.gov.za</a> ).

### 3.1.3 *The Late Iron Age*

The information available at present indicates that in general terms three main groups can be associated with the study area and surroundings during the Late Iron Age. These are the early Fokeng (known as the Ntsuanatsatsi facies), later Fokeng (known as the Makgwareng facies) and finally the Khumalo-Ndebele or Matabele.

#### **Early Fokeng (1450 – 1650)**

The Late Iron Age group referred to as the Ntsuanatsatsi facies of the Urewe tradition was associated with the Fokeng. The name Ntsuanatsatsi is derived from Ntsuanatsatsi Hill located between Vrede and Frankfort in the Free State where the earliest examples of this facies were located. The Fokeng also associates this hill as their place of origin. The Ntsuanatsatsi later moved north across the Vaal River into the Balfour, Suikerboschrand, Klipriviersberg and Vredefort areas. This movement was likely due to the fact that climatic conditions in the Free State became too severe

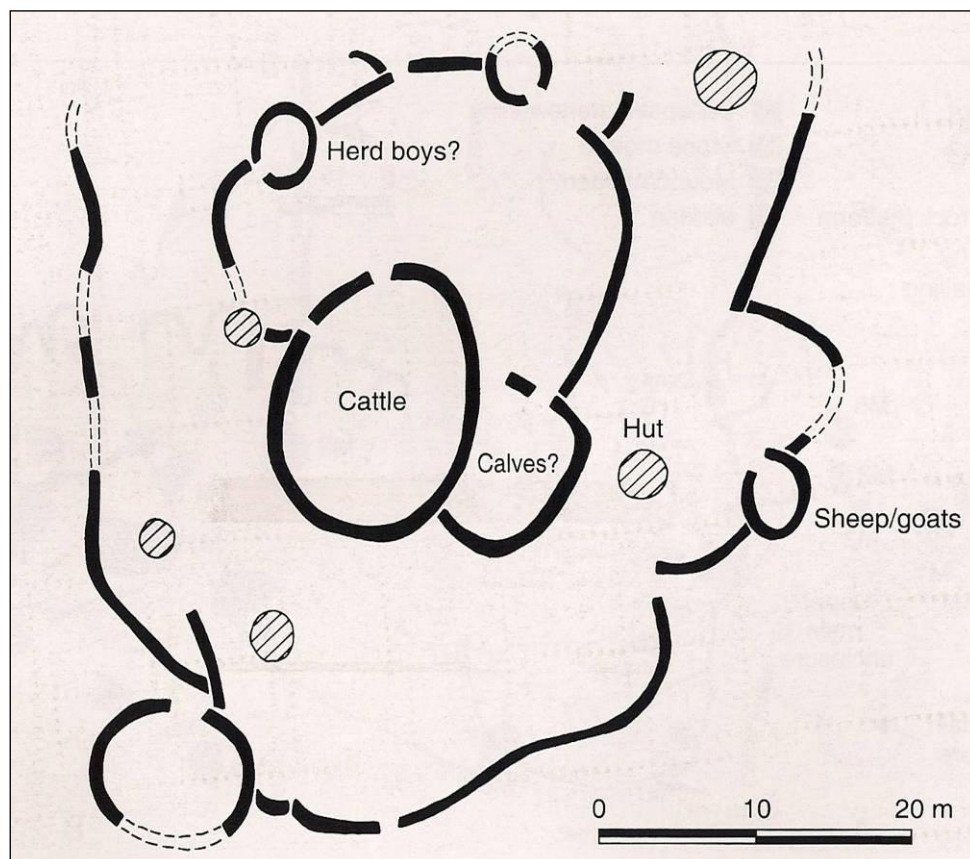
The pottery is characterised by the predominance of comb stamping and finger pinching as decoration techniques. The necks of these pottery vessels bear broad bands of stamping and stamped arcades are also characteristic.

The way of settlement has been classified as Type N or Group I and comprise a few cattle enclosures in the centre with an enclosing wall in which a number of smaller enclosures may be incorporated. Alternatively the settlement layout may comprise an enclosing wall with a small circular enclosure in the centre thereby giving the settlement the appearance of a 'fried egg' (Huffman, 2007).

### ***Later Fokeng (1700 – 1820)***

During the early Historic Period the Ntsuanatsatsi south of the Vaal River developed into the Makgwareng facies. Although still associated with the Fokeng, the pottery of this group is characterised by the predominance of comb-stamped triangles, finger pinching and rim notching.

The settlement pattern of this group is known as Type V which is named after Vegkop near Heilbron. Type V settlements comprise cattle enclosures surrounded by beehive houses and grain bins without the presence of an enclosing wall. This settlement type is also associated with the first appearance of corbelled huts (Huffman, 2007).



*Figure 4 – Typical example of a Type N settlement layout (Huffman, 2007:36).*

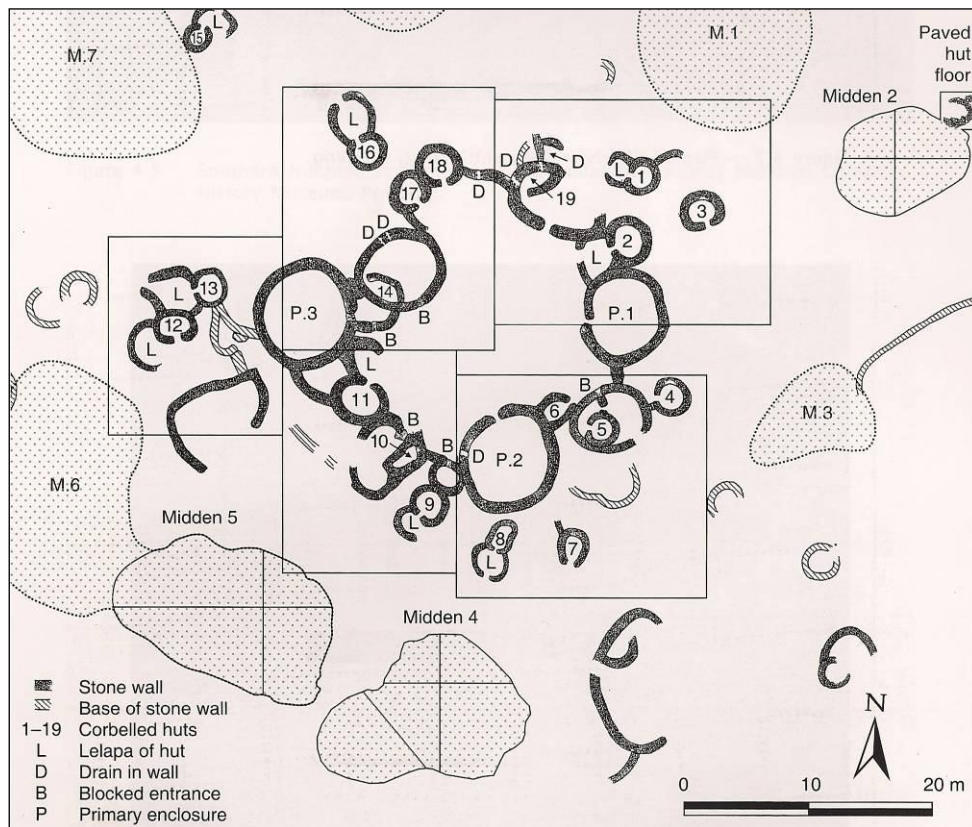


Figure 5 – Typical example of a Type V settlement layout (Huffman, 2007:38).

### ***Khumalo Ndebele (1823 - 1827)***

As mentioned above, the Khumalo Ndebele (more commonly known as the Matabele) of Mzilikazi settled in the central reaches of the Vaal River in the vicinity of Heidelberg after leaving present-day KwaZulu-Natal ([www.mk.org.za](http://www.mk.org.za)). Their settlement in these regions took place between 1823 and 1827. In his book about the history of the RAU Island and surrounding area, d'Assonville (2002) mentions that when the first Voortrekkers arrived at the confluence of the Vaal and Wilge Rivers, the Matabele were known to reside in the Rooikoppe north of the river. This name was given to the hills and mountains north of the Vaal River and directly translated means 'red hills'.

Two different settlement types have been associated with the Khumalo Ndebele. The first of these is known as Type B walling and was found at Nqabeni in the Babanango area of KwaZulu-Natal. These walls stood in the open without any military or defensive considerations and comprised an inner circle of linked cattle enclosures (Huffman, 2007). The second settlement type associated with the Khumalo Ndebele is known as Doornspruit, and comprises a layout which from the air has the appearance of a 'beaded necklace'. This layout comprises long scalloped walls (which mark the back of the residential area) which closely surround a complex core which in turn comprises a number of stone circles. The structures from the centre of the settlement can be interpreted as kitchen areas and enclosures for keeping small stock.

It is important to note that the Doornspruit settlement type is associated with the later settlements of the Khumalo Ndebele in areas such as the Magaliesberg Mountains and Marico and represent a settlement under the influence of the Sotho with whom the Khumalo-Ndebele intermarried. The Type B settlement is associated with the early Khumalo-Ndebele settlements and conforms more to the typical Zulu form of settlement.

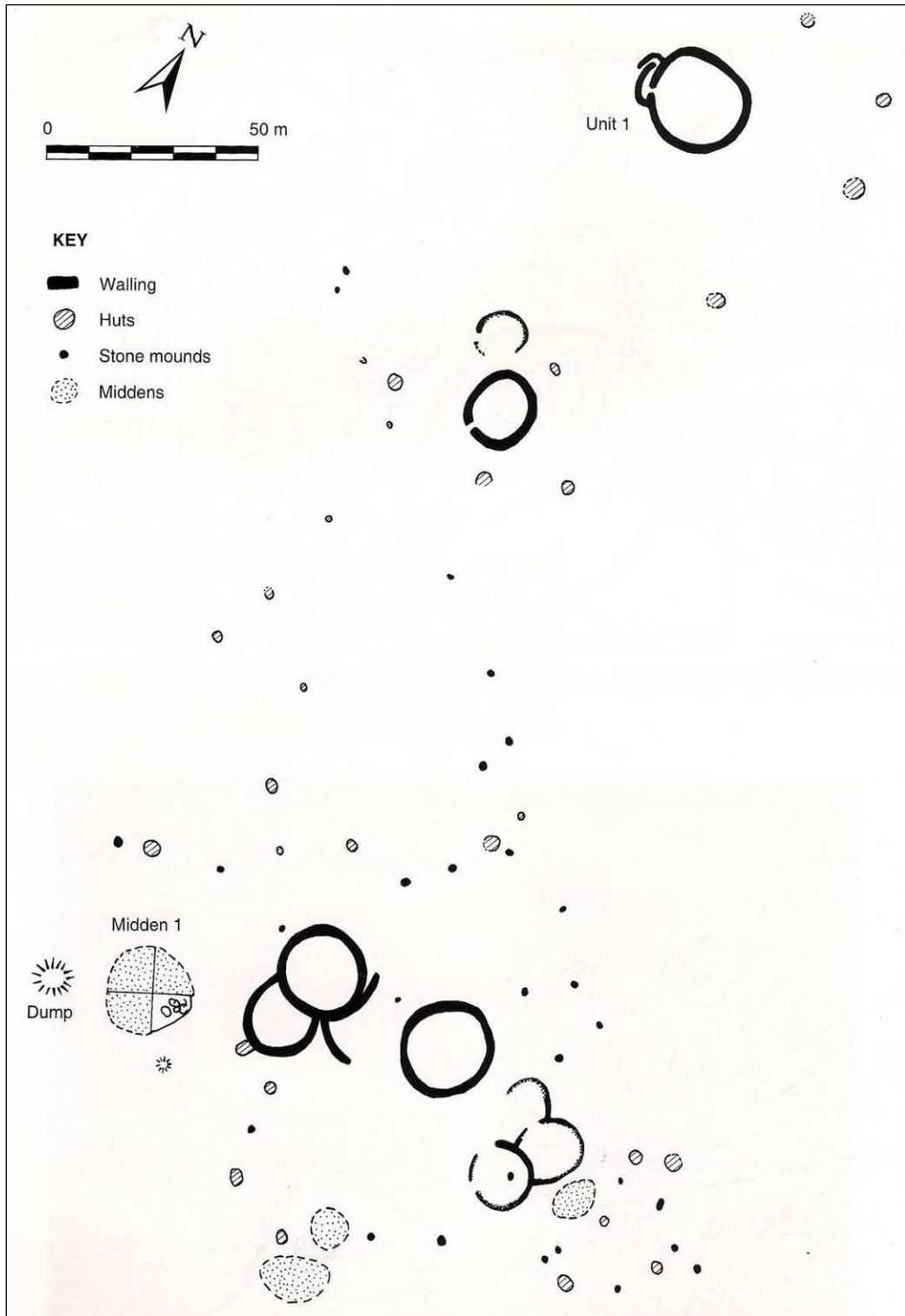


Figure 6 –Layout plan of a Type B settlement from Babanango, KwaZulu-Natal (Huffman, 2007:38).

### 3.1.4 *Hermanus Stephanus Lombard and the death of Captain Elliot*

During the First Boer War (1880-1881) Hermanus Stephanus Lombard was a farmer who stayed on the farm Koppiesfontein (present number 478 IR).

Late in the afternoon on Tuesday, the 28<sup>th</sup> of December 1880 two British officers, Captains Elliott and R.H. Lambert, arrived at his front door. Captain Elliot of the 94<sup>th</sup> Regiment had been the only unwounded officer at the Battle of Bronkhorstspuit (20 December 1880) and was taken prisoner by the Boer forces under Kommandant Frans Joubert. Captain R.H. Lambert of the Royal Scots Fusiliers was taken prisoner on the 18<sup>th</sup> of December 1800 between Heidelberg and Pretoria. The officers were taken to Heidelberg where General Piet Joubert gave them the option of leaving the Transvaal on the condition that they do so as soon as possible and that they never return to take up arms against the Boer republic.

The two officers were accompanied to Pistorius' Pont (near present-day Vereeniging) which they reached early on the morning of 28 December 1880. They refused to cross over the river as they could not take their carriage with them on the small boat. Upon their refusal to cross over the river their guard returned to Heidelberg to report back to the authorities. The officers subsequently decided to travel along the northern bank of the Vaal River with the carriage and horses to find a suitable spot to cross over the river. Late on the afternoon of the same day they arrived at the farmstead of Hermanus Stephanus Lombard at Koppiesfontein. Lombard gave the officers a meal and also fixed their carriage for them. The officers requested directions to Standerton, and not knowing who they were Lombard willingly provided them with directions to that town. It was evident that the officers had decided to join up with their forces in Standerton.

On Wednesday, the 29<sup>th</sup> of December 1880 the officers were arrested by a Boer commando under the leadership of Kommandant Roelf Nieuwenhuizen and Veldkornet Adriaan van Niekerk. Accompanied by these Boer officers and seven armed men the two officers arrived back at Koppiesfontein on the afternoon of 29 December 1880. The Boers requested Lombard to take them to the closest drift crossing over the river so that the British officers could be forced to cross into the Free State. Lombard took the men to Lies Drift approximately three kilometres from his farmstead.

When the party arrived at the crossing the light was already fading and the British officers pleaded to be allowed to cross over the river the following day. Kommandant Nieuwenhuizen was adamant that they had to cross at once. When Hermanus Lombard saw that the British officers were not skilled in handling the carriage and horses he volunteered to take them across and swim back through the river. The commandant stated that Lombard did not have permission to enter the Free State and again indicated to the British officers that they had no choice but to cross over the river. They reluctantly moved the carriage forward but only travelled a few meters when it stopped

and Captain Lambert shouted that he was going to turn the carriage around. Nieuwenhuizen gave the order to shoot. Lombard later stated that when the order was given to fire he simply pointed his rifle into the air and fired a shot. Although Captain Lambert managed to jump into the water and escaped to the Free State side, Captain Elliot was killed.

After the shooting Hermanus Stephanus Lombard was peppered with questions from neighbours and acquaintances about the events of that fateful afternoon. With neither Kommandant Nieuwenhuizen nor the remainder of the commando present to verify his innocence, he began to fear that he was going to be charged with the murder of Captain Elliot. As a result he took his rifle and ammunition and fled to the farthest reaches of the Kalahari Desert in present-day Botswana.

Meanwhile, there was an international outcry when the world came to know about the shooting of Captain Elliot. The event also caused considerable embarrassment to the Transvaal Republic. As such the Transvaal Government promised the British authorities that the persons responsible for Captain Elliot's death would be brought to justice. The trial commenced on the 18<sup>th</sup> of July 1881. The problem the court immediately faced was that most of the men which formed part of the group who fired on the British officers had fled the country. Only Kommandant Nieuwenhuizen and one P.J. Deysel could be located and brought to the court. With most of the witnesses called to testify not actually present at the murder itself the testimony relied heavily on Captain Lambert's evidence. Hollard, acting for the defence, was able to prove that Lambert's testimony was not always true. As a result it came as no surprise when the two accused were acquitted.

Lombard spent a large part of his life in present-day Botswana where he was a hunter and trader. He only returned to the Vaal River after the establishment of the Union of South Africa (in 1910). Still believing that he will be seen as a murderer, he vowed that he would never be taken alive. He was constantly on the move between Heidelberg and Frankfort in his carriage and never again led a normal life as he lived in constant fear of being caught. He died at the age of 94 in 1931 near a drift over the Vaal River in the vicinity of Villiers. Hermanus Stephanus Lombard lies buried in a cemetery on the farm Lepelkop 2 on the Free State side of the Vaal Dam (Van der Walt, 2008).

Interestingly, the story of Hermanus Stephanus Lombard and the event of 29 December 1880 have become quite well known in that the Afrikaans author Eugene Marais wrote about it in his *Sketse uit die lewe van mens en dier* while the South African journalist and author Lawrence George Green wrote a section about Lombard in his book *Thunder on the Blaauwberg*. The shooting of Captain Elliot was also used by the English author Rider Haggard as the theme for his book *Jess*.





*Figure 7 – This photograph of Hermanus Stephanus Lombard was published in Lawrence Green’s Thunder on the Blaauwberg (Green, 1966).*

### 3.2 Field work findings

No heritage resources were found in the study area.

An evaluation of the larger cultural landscape however reveals a large number of heritage resources from archaeological settlements dating from the late 1700’s (**Figure 8**) to the Macama farmstead that was previously known as the Schikfontein farm (**Figure 3**). Analysis of the larger cultural landscape also reveals the extent of the archaeological stone walled site in the area which extends north and south and has been the subject of more recent research by Sadr and Rodier (2012) on the evaluation of settlement patterns in the Suikerbosrand Nature Reserve (**Figure 10**).



Figure 8 – View of area just to the south of the proposed mining area with stone walled site visible

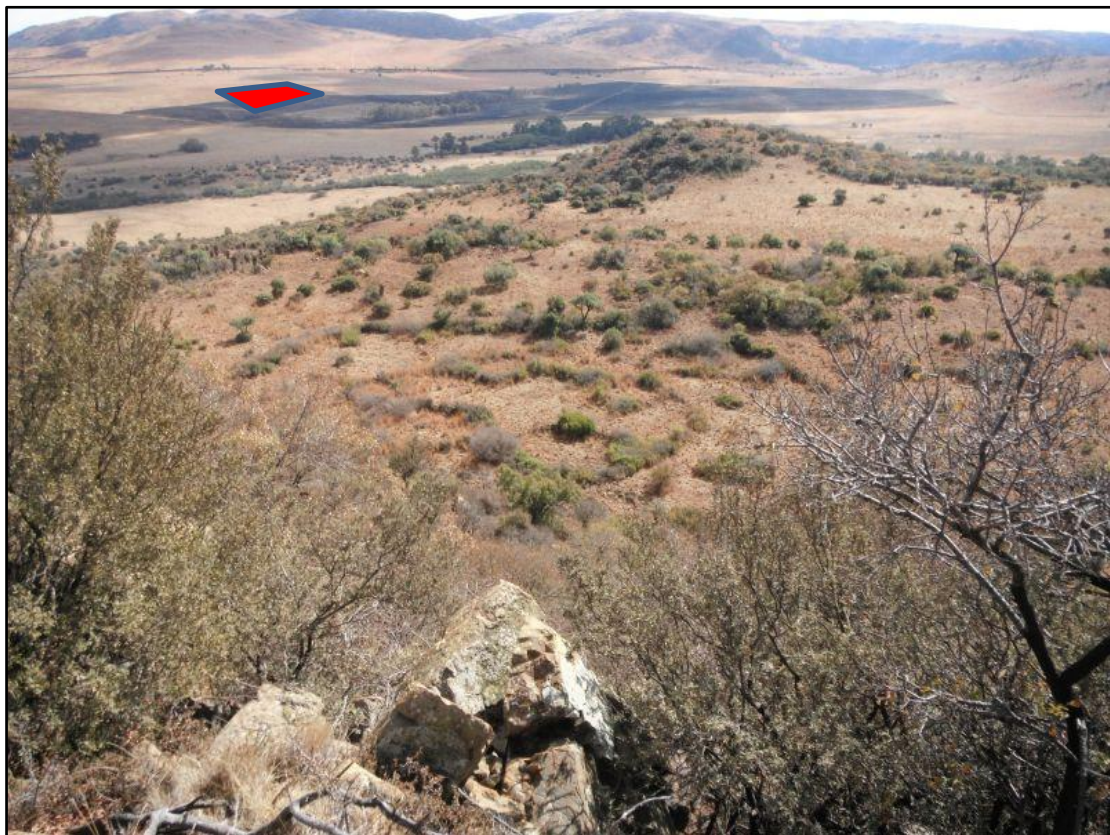


Figure 9 – View of mining area (in red) from point indicated with a star in Figure 8. Notes stone walling in foreground.

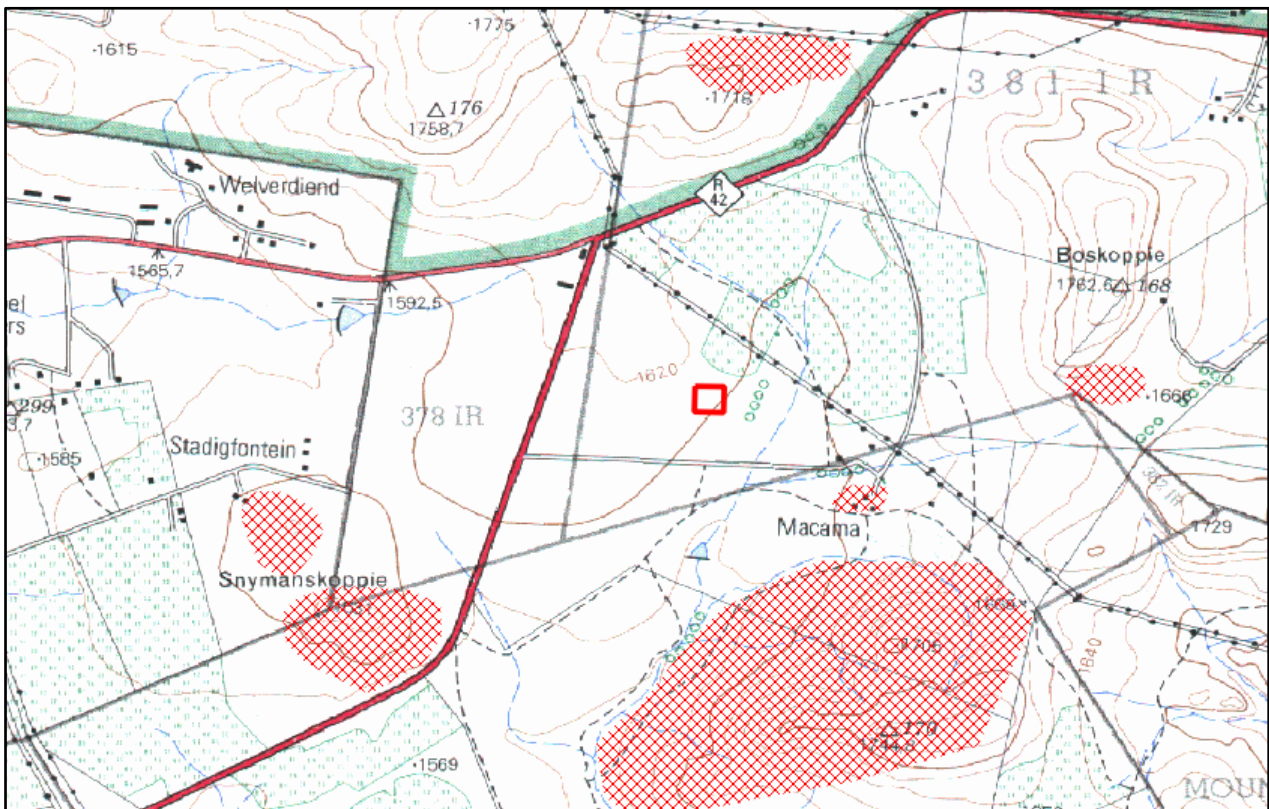


Figure 10 – Delineated archaeological sensitive areas

### 3.3 Cultural Landscape

Heritage significance of the cultural landscape is derived from the interaction between the natural landscape, such as valleys, undulating plains and rivers courses usually framed by mountain ranges or accentuated by ridges and koppies, and access routes, human settlements and farmsteads. Also interacting with these physical entities are intangible and historic landscapes and events that is known to have added to the cultural fabric of a place or area.

The evaluation of the study area and surrounds as demarcated shown the area to be rich in heritage resources spanning the archaeological to historical timeframe.

The cultural landscape of the study area has a wilderness/rural appearance. The Visual Impact Assessment completed for this project by EnviroCam (2012) states:

*The area to the north of the proposed Ngwenya Project has a definite conservation character with a strong relationship to the Suikerbosrand Nature Reserve. The visual attractiveness and unspoiled views strengthens the conservation character of the immediate area. Areas to the east and south is characterised by a rural sense of place with agriculture (livestock farming) dominating. The surrounding area is visually unspoiled and attractive. The study area has a high sense of place and is historically linked to agricultural and conservation activities. It is anticipated that the sense of place will be negatively affected.*

However the implementation of the recommendations in the VIA (EnviroCam,2012) will be able to mitigate the visual impact on the cultural landscape of this small mining activity.

*Impact Evaluation of cultural landscape:*

Impact	Impact Significance	Heritage Significance	Probability	Extent	Duration	Intensity
Negative	7 – Low to moderate	Grade GP.B	2	2	2	1

#### 4. RECOMMENDATIONS

During the survey no heritage resources were found in the study area, and no impact on any heritage resources is foreseen for this small scale mining activity. The larger landscape is however rich in history and archaeology and will require an in depth HIA if the mining activity extends outside the current application area.

*General recommendation on archaeological work*

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

#### 5. LIST OF PREPARES

PGS Heritage and Grave Relocation Consultants have seconded the following specialist to this project:

Team Leader: Wouter Fourie (BA (Hon) Archaeology), Accredited Professional Archaeologist (ASAPA) – CRM Accredited Principal Investigator.

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## **APPENDIX A**

### **LEGISLATIVE PRINCIPLES**

#### LEGISLATIVE REQUIREMENTS – TERMINOLOGY AND ASSESSMENT CRITERIA

##### **3.1 General principles**

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will apply until a survey has been done and identified heritage resources are formally protected.

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In the new legislation, permits are required to damage, destroy, alter, or disturb them. People who already possess material are required to register it. The management of heritage resources are integrated with environmental resources and this means that before development takes place heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves, which are older than 60 years and are not in a cemetery (such as ancestral graves in rural areas), are protected. The legislation protects the interests of communities that have interest in the graves: they may be consulted before any disturbance takes place. The graves of victims of conflict and those associated with the liberation struggle will be identified, cared for, protected and memorials erected in their honour.

Anyone who intends to undertake a development must notify the heritage resource authority and if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the construction company's cost. Thus, the construction company will be able to proceed without uncertainty about whether work will have to be stopped if an archaeological or heritage resource is discovered.

According to the National Heritage Act (Act 25 of 1999 section 32) it is stated that:

An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

- objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, meteorites and rare geological specimens;
- visual art objects;
- military objects;
- numismatic objects;
- objects of cultural and historical significance;

- objects to which oral traditions are attached and which are associated with living heritage;
- objects of scientific or technological interest;
- books, records, documents, photographic positives and negatives, graphic material, film or video 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), or in a provincial law pertaining to records or archives; and
- any other prescribed category.

Under the National Heritage Resources Act (Act No. 25 of 1999), provisions are made that deal with, and offer protection, to all historic and pre-historic cultural remains, including graves and human remains.

### **3.2 Graves and cemeteries**

Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority. Graves in the category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation.

If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.